

UNIVERSITY OF KWAZULU-NATAL

**Effects of entrepreneurship education and entrepreneurial capabilities on graduate
employability in Ghana**

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**A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy**

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

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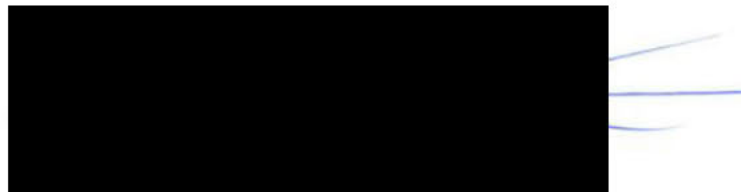
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DECLARATION ONE – PLAGIARISM

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DEDICATION

To my late father, Mr. Ebow Mensah-Williams and my wife, Mrs. Abena Mensah-Williams.

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To the Almighty God, who bestows unto us His blessings, all praise and thanks be to Your Name.

ABSTRACT

Entrepreneurship education and training has been considered as a crucial tool in ensuring the development of national economies through the development of human resources (entrepreneurs and intrapreneurs). These products (entrepreneurs/intrapreneurs) of entrepreneurship education and training programmes are considered as the fourth most essential factor of production in both developed and developing economies. Their roles within global and local economies have been useful since the beginning of human history. This study sought to establish the connection that exists between entrepreneurship education and graduate employability in an emerging economy, which is an area that is under-researched and has been characterised with uncertainty of results. Specifically, the study investigated whether exposure to entrepreneurship education had the tendency to influence the development of graduates' entrepreneurial capabilities, and their effects on employability in Ghana.

The study was carried out in some twelve state-owned enterprises and three tertiary institutions in Ghana. A convergent mixed methods approach was adopted to gather data from a sample of three hundred and forty-two (342) respondents, comprising of three hundred and thirteen (313) graduates, seventeen (17) human resource managers, and twelve (12) entrepreneurship lecturers. Quota and convenience sampling techniques were employed to identify graduates, while academics (lecturers) and human resource managers were selected by way of census. A census was used because of the small number of academics and human resource managers involved in the study (i.e., less than fifteen in each case). Quantitative and qualitative data were collected through a questionnaire and interview guide, respectively. Descriptive and inferential statistics were used to analyse the quantitative data, while content analysis was used to analyse qualitative data with the help of NVivo 12 Pro. Partial Least Squares (PLS) structural equation modelling was used to test the hypotheses.

The results indicated that entrepreneurial education has a significant positive effect on graduate employability in Ghana. Specifically, the study revealed that entrepreneurship education influences the acquisition and development of graduates' entrepreneurial capabilities within the Ghanaian labour market. Entrepreneurial capabilities were also found to be relevant to the development and growth of state-owned enterprises in Ghana,

in terms of competitive advantage, survival and sustainability, employee performance, organisation productiveness, as well as resource mobilisation and utilisation. The results also revealed that both entrepreneurial activities and approaches to entrepreneurship education influence the development of entrepreneurial capabilities of Ghanaian graduates.

The findings of the study have implications for the teaching and learning of entrepreneurship in tertiary institutions, graduate empowerment and employment, as well as the recruitment and selection of graduates by human resource managers. It is, therefore, recommended that a national policy should be developed to provide a policy direction for entrepreneurship education, and resources should be devoted to its teaching and learning, as well as for research. Future research should focus on evaluating the effects of entrepreneurship education on graduate employability, with special attention on entrepreneurial engagements.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Entrepreneurship education (EE) has gained much recognition in developing economies because of its expected role in employment creation. Entrepreneurship is recommended as a solution to global competition and corporate downsizing, which have contributed to unemployment, especially among graduates (Rengiah, 2013; Ndofirepi, 2020; Olufemi, 2020). Ngerem and Ezipkpe (2016) also argue that entrepreneurship education is the core of both individuals' and society's economy.

Its role in the life of an individual is not limited to the provision of relevant competencies, but also the development of entrepreneurs who engage in both private and government-owned enterprises (Neergaard, Gartner, Hytti, Politis & Rae, 2020). Within the corporate sphere, the significant role of the corporate entrepreneur or intrapreneur has been widely established. Research indicates that the presence of a good corporate entrepreneur or the intrapreneur within an organisation, provides the firm with a competitive advantage over its competitors, promotes its growth and performance, and enhances organisational creativity (Laaksonen, Ainamo & Krjalainen, 2011; Agu, 2015; Lazar & Paul, 2015; Mahadalle & Kaplan, 2017). In a situation where the recipients of entrepreneurship education are motivated enough to become entrepreneurs, their efforts have also been well enshrined in literature. These entrepreneurs have been considered as the fourth pillar in production, assisting in employment creation and revenue mobilisation (Aziz, Fahim, Usmani & Rizman, 2013; Ngerem & Ezipkpe, 2016; Ndofirepi, 2020).

This fundamental role played by entrepreneurship necessitated its introduction and teaching in most educational institutions (König, Juric & Koprivnjak, 2016; Ndala, 2019), after its purported teaching in 1938 at Kobe University and in 1947 at the Harvard Business School (Chimucheka, 2014). Globally, there has been an increase in the number of tertiary institutions that offer entrepreneurship education. Research indicates that about one thousand six hundred (1600) higher education institutions in the United States of America have introduced the teaching of entrepreneurship-related courses since the year 2006 (Pittaway & Edwards, 2012). Ndofirepi (2020) also reported that about twenty-

three (23) public universities in South Africa offer entrepreneurship-related programmes. Similarly, in Ghana, almost every tertiary institution runs a programme or related course in entrepreneurship (Asitik & Nunfam, 2019). The move followed the government's strategy in 2003 to reduce poverty through education, in compliance with the United Nations Sustainable Development goal number one.

However, even before the Government of Ghana's directive in 2003, formal entrepreneurship education had featured in the country's structural adjustment programme in the mid-1990s (Hilson & Potter, 2005). The retrenchment of public sector workers demanded for the introduction of short-term entrepreneurship programmes, to prepare retrenched workers to pursue self-employment (Adom, 2016; Nyadu-Addo & Mensah, 2017). Again, the recommendation to ensure the teaching and learning of entrepreneurship by the United Nations, through the International Labour Organisation (ILO) and the United Nations Development Programme (UNDP) in 1993, also led to its teaching in some developing countries, including Ghana (Asamoah, 2015). The move by the United Nations led to the integration of entrepreneurship into technical and vocational education and training (TVET) programmes, and into university education through the introduction of a Master of Philosophy programme in Vocational and Technical Education at the University of Cape Coast, Ghana.

Despite the move by governments as well as individuals to ensure the introduction and teaching of entrepreneurship programmes, especially at the tertiary level, there is debate as to whether this can be achieved; that is to say, whether entrepreneurship and its associated traits are inherent or teachable (Kozlinska, 2016; Riebenbauer, Dreisiebner & Stock, 2018). While the advocates of the human capital theory argue, generally, that investment in education results in the acquisition of relevant knowledge which is needed in the labour market, the proponents of the psychological traits theory are of the view that traits, such as entrepreneurial capabilities, are inborn or inherent (Unger et al., 2011; Dahmann & Hickie, 2012; Kozlinska, 2016). Be it learnt or inherent, the proponents of the resource-based view believe and argue that these entrepreneurial capabilities are an inherent part of firms' internal resources, and as such, are needed by them to enhance

their competitive advantage (Asiedu, 2019; Martin & Javalgi, 2019). The human capital theory and the resource-based view theory form the theoretical basis for this study.

1.2 BACKGROUND AND CONTEXT OF THE STUDY

As research on the relevance of tertiary education in the transition to a knowledge-based economy grows, tertiary institutions are required to produce employable graduates with the necessary capabilities to work effectively within an organisation, and that are able to adjust to the ever-growing needs of industry and the labour market. The burden on tertiary education institutions, especially universities, to produce graduates who are employable, has increased (Crayford, Fearon, McLaughlin, & van Vuuren, 2012; König, Juric & Koprivnjak, 2016; Ndala, 2019; Kornelakis & Petrakaki, 2020), especially following the recent economic recession and the global pandemic (Covid-19) situation (Mainga, Murphy-Braynen, Moxey & Quddus, 2022). There is also pressure on both governments and other stakeholders to contribute to this drive, in order to ensure the development of human resources with the capabilities to contribute to the growth of national economies and employment creation. Research, for instance, indicates that governments have committed to substantial investments in higher education globally, in the form of financing and provision of other material resources, to promote teaching, research and training (OCED, 2018; Ndala, 2019).

It is interesting to note that in an era of growing unemployment among graduates, issues have been raised about the ability of graduates to meet the demands of employers and to create jobs (International Labour Organisation (ILO), 2020; Walmsley, Decker-Lange & Lange, 2022). Recruiters, generally, demand the services of graduates who are well-rounded with not only technical knowledge and skills, but also behavioural ones, and are willing to make sacrifices for the survival and development of organisations (Department of Business Innovation & Skills, 2015; Griffiths, Inman, Rojas & Williams, 2018; Dadzie, Fumey, & Namara, 2020). Moreover, the shift in technology and other contingent factors have also increased employers' expectations to employ graduates who have entrepreneurial or enterprising capabilities, to especially help in making firms more competitive (Mitra, 2011; Mwiya, 2014; Mainga, Daniel & Alamil, 2022). This move is anchored in the resource-based view.

The resource-based view (RBV) posits that a firm's resources form part of the primary determinants of its performance, and contribute to its sustainable competitive advantage (Mweru & Muya, 2015). Barney (1991) argued that an organisation's competitive strategies are mostly influenced by its accumulated tangible and intangible resources. These resources include, but are not limited to, entrepreneurial capabilities, personal values, material resources, etc. (Gupta, Tan, Ee & Phang, 2018; Nason & Wiklund, 2018; Sabourin, 2020). The theory provides a platform that focuses on the analysis of these various resources, to understand an alternative approach to industry players and their competitive advantages. The RBV, therefore, emphasises the need by firms to hire and develop staff who possess the relevant capabilities that are valuable, rare, inimitable, and non-substitutional, in order to extend their human resource base and remain competitive (Sabourin, 2020). A firm's ability to invest in its human capital at either the individual or corporate level, determines the achievement of its economic goals (Assensoh-Kodua, 2019).

The effects of this pursuit by organisations to employ human resources that are valuable, rare, inimitable and non-substitutional, have been to create the need for students to develop themselves through investment in education, in order to be competitive in the job market (Mainga, Daniel & Alamil, 2022). As posited by the human capital theory, formal education is crucial in improving the productive capabilities of an individual. The theory argues that an individual who invests in their human capital, is able to gain competitive advantage and sustained relevance within a given job market, as knowledge, attitude, as well as skills are seen as intangible assets for organisational sustainability (Wuttaphan, 2017). The theory also assumes that with the right investment in education, the individual is able to acquire capabilities that yield positive returns, through meaningful employment and higher earnings (Ajidem & Alimi, 2021). Education, therefore, becomes an inseparable element of human capital investment, through which humans develop capabilities that provide the foundation for organisational development, sustainability and competitiveness (Widarni & Wilantari, 2021).

As a result of the quest to develop the current and future human resources with capabilities that are currently in demand in labour markets, the relevance of

entrepreneurship and entrepreneurship training and programmes have been acknowledged, with special emphasis on entrepreneurship education (Aboobakar, 2020; Anosike, 2019). As such, the number of tertiary institutions that offer entrepreneurship education has increased in recent years (Longva, 2019). Educational institutions now consider the need to teach entrepreneurship education, simply because it has been considered essential for developing entrepreneurial capabilities that are needed for growth and development in an economy, as well as its potential role in reducing graduate unemployment (Akanbi, 2010; Elechi, 2013; Malebana & Swanepoel, 2015). However, if entrepreneurship education is seen as a key strategy to increased innovation and sustained economic growth, as well as fostering employment (Grozdanic, Jovancevic & Djuricic, 2013; Afriyie & Boohene 2014; König, Juric & Koprivnjak, 2016), then it seems that most developing countries have not enjoyed its benefits yet. Statistics show that graduates still struggle to become absorbed into the Ghanaian labour market (Danish Trade Union Development Agency, 2020; Lauder & Mayhew, 2020). For instance, Afriyie and Boohene (2014) argue that Ghana's economic capacity to absorb new graduates into the labour market has decreased, hence necessary interventions must be made in order for graduates to escape the possibility of not being employed after tertiary education. Out of three hundred thousand (300,000) graduates churned out by the educational institutions into the Ghanaian labour market annually (International Labour Organisation, 2018; Dadzie, Fumey & Namara, 2020), an average of 14% of youth and 6.9% of adults are unemployed (Danish Trade Union Development Agency, 2020). Ampadu-Ameyaw, Jumpah, Owusu-Arthur, Boadu and Fatumbi (2020) also argued that the youth unemployment rate remains higher compared to the proportion of the population above the youth bracket (35+ years), because the public sector only absorbs about 80,000 out of the 300,000 graduates.

Despite the growing interest in the field of entrepreneurship education by governments, educational institutions, non-governmental organisations, as well as businesses (UNCTAD, 2010; Mensah, 2013; Valerio, Parton & Robb, 2014), questions remain as to whether: (1) entrepreneurship is worth the investment; (2) entrepreneurship training enhances students' abilities to compete in today's labour market; and (3) entrepreneurship students make efficient, effective and successful business leaders

(Gafar, Kasim, & Martin, 2014; Othman, Othman & Juhdi, 2022). The central problem that has inspired this research is the need to recognize and understand how entrepreneurship education influences graduate employability in Ghana.

1.3 RESEARCH PROBLEM STATEMENT AND RESEARCH OBJECTIVES

1.3.1 Problem Statement

In recent years, research on entrepreneurship education (EE) has evolved as an attractive theme at local and international conferences, because of its potential effectiveness as a tool for addressing unemployment and other socio-economic challenges inhibiting sustainable development throughout the world (Marques & Albuquerque, 2012; Akhuemonkhan, Raimi, & Sofoluwe, 2013; O'Connor, 2013; Ojeifo, 2013; Elert, Andersson & Wennberg, 2015; Tiliye, 2015). Entrepreneurship education or training, like other educational programmes, is designed to serve different purposes. In some instances, entrepreneurship education has been considered as the process of inculcation of essential entrepreneurial skills, knowledge, attitudes, abilities, and competences in learners, that prepare them to contribute meaningfully to the sustainable growth, development, and survival of the society and humanity (Akanbi, 2010; Elechi, 2013). According to Kalani, Rani, Shah, Dahar and Shiyi (2022), and Mei and Symaco (2020), entrepreneurship education programmes are designed to inculcate entrepreneurial awareness and motivation in students, train them with what is needed to set up a business and manage its growth, as well as develop the entrepreneurial abilities needed to identify and exploit business avenues.

As a result of the present worldwide economic crises, if graduates who receive entrepreneurial training can make a difference in business establishments (Packham, Jones, Miller, Pickernell, Thomas, 2010; El-Gohary, O'Leary & Radway, 2012), then it is extremely important to investigate and understand how employable individuals with entrepreneurial capabilities are. Aside from the need to understand and establish a clear dichotomy between entrepreneurship and education in most studies, Galloway, Kapasi and Whittam (2015) argue that very few studies have scrutinized the influence that entrepreneurship education has on employment. It is not surprising that many educators in the field of entrepreneurship, have called for more studies with a dynamic research

approach, to establish the impacts of entrepreneurship education on graduates (Gray, 2013; Johnson and Christensen, 2014; Nabi, Linan, Fayolle, Krueger & Walmsely, 2017). Duval-Couetil and Long (2014) also argue that there is very limited knowledge about the careers of individuals who went through entrepreneurship education at tertiary institutions.

Research on the effects that stem from entrepreneurial training or education have been poorly understood, and are often associated with ambiguous results (Elert, Andersson, & Wennberg, 2015; Sousa, de Almeida, Mansur-Alves & Huziwara, 2020). While numerous researchers have identified a positive influence of entrepreneurship training on students' supposed attractiveness and viability of establishing and sustaining a new business or start-up, other studies have concluded that the impacts are negative (Oosterbeek, et al., 2010; Fayolle & Gailly, 2013; Lyons & Zhang, 2019). In a similar vein, Lorz (2011: 2) also argues that: "If we consider the situation of research on the outcomes of entrepreneurship education at this point, we note that, on the one hand, there is a continuous effort to expand entrepreneurship education programme offerings. On the other hand, there is a lack of rigor in past research studies and ambiguous results regarding the impact of entrepreneurship education".

In spite of the efforts made by governments of developing economies to promote entrepreneurship education to curb unemployment (UNCTAD, 2010; Onyia, 2011; Mensah, 2013; Valerio, Parton, & Robb, 2014), graduate unemployment is still on the rise. Almost every university in Ghana offers entrepreneurship, either as a course or programme of study, but graduate unemployment is still high (Bamfo, 2013; Fosu & Boateng, 2013; Uhunmwangho & Osayomwanbor, 2014). Studies by Valerio, Parton and Robb (2014), and Uhunmwangho and Osayomwanbor (2014) found that about 50% of Ghanaian youth who graduate from Ghanaian tertiary institutions (universities and polytechnics), find it difficult to secure employment after two years of national service, while 20% fail to gain jobs after three years of national service.

Studies have indicated that most graduates are not interested in self-employment, but rather prefer working in a corporate organisation (Green & Henseke, 2021). Singh,

Darmavi, Mansor, Singh and Mahmood (2018) argued that although many fresh graduates possess entrepreneurial capabilities that could enable them to start their own businesses, only a limited number choose self-employment over wage employment. In a similar vein, Enniful, Boakye-Amponsah and Nduro (2016) found that about 80% of Graphic Design graduates of the then Takoradi Polytechnic, now Takoradi Technical University, who had the opportunity to participate in an entrepreneurship course, did not consider setting up a business as a solution to unemployment. If studies have also established the desire of employers to hire graduates who have enterprising capabilities (Mitra, 2011; Mwiya, 2014), then there is the need to find out the relevance to these organisations of the entrepreneurial capabilities that graduates possess, especially where there are limited studies on the effects of entrepreneurship education on the intrapreneurial intentions of graduates (Hytti & Heinonen, 2013; Longva, 2019).

As a result of the complexity of entrepreneurship education, owing to the diversity and multiplicity of its goals, along with the content and delivery, there is the need to ascertain which entrepreneurial development activities and approaches to entrepreneurship education, significantly influence the development of such entrepreneurial competencies (Ndofirepi, 2020). Surprisingly, research indicates that participation in these developmental activities increase students' employment prospects, as well as affecting individuals' labour market outcomes (Bangerter & Roulin, 2013; Lau et al., 2013; Ndou et al., 2018; Korzhov & Pasko, 2020); however, research on the role of these entrepreneurial activities has been minimal (Fulgnce, 2015). Studies (Lackéus, 2013; Moberg, 2014; Piperopoulos & Dimov, 2014; Bell & Bell, 2020; Amalia & Korflesch, 2021) have also been conducted on approaches to entrepreneurship education, however, much is not known about which of these approaches to adopt, especially within higher education institutions (Lackeus, 2013).

Against this backdrop, a study on how entrepreneurship education influences graduate employability in an emergent economy, would be theoretically and practically relevant to the field of research in entrepreneurship education; it would also contribute to reducing the dearth of knowledge on the effects of entrepreneurship education on graduate

employability in Africa, and Ghana in particular. The research objectives and questions are formulated accordingly.

1.3.2 Research Objectives

The aim of this study was to evaluate the impact of entrepreneurship education on graduate employability in Ghana. Specifically, the study sought to:

1. Determine the entrepreneurial capabilities gained by graduates through entrepreneurship education;
2. Analyse the relevance of entrepreneurial capabilities within organisations;
3. Investigate entrepreneurial activities undertaken by graduates in entrepreneurship education;
4. Determine the approaches employed in teaching entrepreneurship education;
5. Examine the effect of entrepreneurial activities on the development of the entrepreneurial capabilities of graduates;
6. Assess the effect of the approaches to teaching entrepreneurship on the entrepreneurial capabilities of graduates; and
7. Assess the effect of entrepreneurial capabilities on graduate employability.

1.3.3 Research Questions

The main purpose of the study was to evaluate the impact of entrepreneurship education on graduate employability in Ghana. To achieve this, the following research questions and hypotheses guided the study:

1. What are the entrepreneurial capabilities gained by graduates through entrepreneurship education?
2. What is the relevance of entrepreneurial capabilities to organisations?
3. What are the entrepreneurial activities undertaken by graduates in entrepreneurship education?
4. What are the approaches employed in teaching entrepreneurship education?
5. To what extent do entrepreneurial activities affect the development of the entrepreneurial capabilities of graduates?
6. What are the effects of the approaches of teaching entrepreneurship education on the entrepreneurial capabilities of graduates?

7. To what extent do entrepreneurial capabilities affect graduate employability?

1.4 RATIONALE OF STUDY

Given the importance that entrepreneurs and intrapreneurs play in today's labour market, this study is crucial. The number of universities offering entrepreneurship programmes is growing, in spite of the inadequate and clear scientific answers regarding the influence of entrepreneurship education on participating students, and the resultant increase in the graduate unemployment rate (Nabi, Linan, Fayolle, Krueger & Walmsley, 2017; Dadzie et al., 2020; Kavita, 2020). This study explored the influence of entrepreneurship education on graduate employability and will provide government institutions responsible for academic programme accreditation, as well as universities and other stakeholders, especially industry, with insights to ensure that relevant content is included when designing curriculum for entrepreneurship programmes. This can then lead to the holistic development of graduates. Thus, the study has both academic and practical implications on the development and teaching of entrepreneurship in tertiary education institutions.

In line with the fact that researchers have indicated that rigorous research on the influence of entrepreneurship education on graduate employability is minimal (Oosterbeek, van Praag, & Ijsselstein, 2010; Rideout & Gray, 2013; Nabi, Linan, Fayolle, Krueger & Walmsley, 2017), the current study hopes to help bridge the methodological gap. As such, it seeks to: (1) gather and compare data from three different groups of respondents, namely, human resources managers, lecturers, and graduates; and (2) deviate from most of the traditional studies where pre-post designs (Graevenitz, Harhoff & Weber, 2010; Longva & Foss, 2018; Cera & Cera, 2019; Cera, Mlouk, Cera & Shumeli, 2020) are used, to reach a conclusion on the effects and/or impacts of entrepreneurship education. In effect, the current study will contribute to the theoretical, practical and empirical knowledge of entrepreneurship education, by helping to reduce the dearth of knowledge on the effects of entrepreneurship education on graduate employability in Africa, especially in Ghana, and bridging the methodological gap.

It is also worth noting that although studies have established the positive impacts of entrepreneurship education, there seems to be a lack of studies on effects of entrepreneurship education on graduate employability in developing countries, especially in Africa (Babatunde, 2016; Alaref, Bradmann, & Premand, 2019). Literature also shows that most of the impact studies of entrepreneurship education were carried out in developed countries (Lackeus, 2014; Newbold, 2014; Piperopoulos & Dimov, 2014; Rauch & Hulsink, 2014; Sanchez, 2014; Okolie, Igwe, Nwosu, Eneje & Mlanga, 2020; Colombelli, Panelli, & Serraino, 2022), but not in developing countries, especially in Africa (Steenekamp, 2013; Babatunde, 2016). There is, therefore, the need to bridge this gap by ascertaining the effects of entrepreneurship education on graduate employability, within the context of a developing country.

Although entrepreneurship education is recognised to be relevant to the development of learners and societies (Duval-Couetil & Long, 2014; Valerio, Parton & Robb, 2014; Singh, Darmawi, Mansor, Singh & Mahmood, 2018; Li & Wu, 2019), there seems to be limited scientific research demonstrating its impacts, as distinct from traditional education (Longva & Foss, 2018). In addition, there is limited research establishing the correlation between processes in education and the products of these processes; hence, it is challenging for practitioners in education to understand and appreciate which activity works well, for what purpose, under what conditions, and leading to what behavioural changes in the learner (Byabashaija & Katono, 2011). The current study bridges this gap by concentrating on the effects of entrepreneurship education on the development of an employable graduate.

1.5 OVERVIEW OF RESEARCH METHODOLOGY

The study employed a mixed methods research approach. This approach implies the usage of multiple methods, to complement the strengths and weaknesses of each of the methods used. As such, integrating different methods (i.e., qualitative and quantitative approaches), means that the insufficiencies of one approach can be compensated by the strengths of the other (Carr & Griffin, 2013; Feters, Curry & Creswell, 2013; Sekaran & Bougie, 2013; Zikmund, Babin, Carr & Griffin, 2013; Hamlin, 2015). The mixed methods design was used to derive a clearer picture of the issues under study, and the

convergent model of this approach was employed by the researcher. The purpose of this was to gather and integrate data from both qualitative and quantitative means, in order to assist in providing a complete analysis of the research problem (Creswell, 2013). Data collection was done at the same time and then integrated into the interpretation of the results. The application of the mixed methods approach was meant for: (1) triangulation – collecting data from different sources through the use of different methods, so that information gathered could be integrated to make judgements and decisions on the themes under study; and (2) complementarity – capitalising on the strengths of one approach to complement the deficiencies of the other. The overview of the research methodology has been summarised in Table 1.1.

Table 1.1: Overview of the research methodology

Elements of research method	Elements considered for the study
Philosophy	Pragmatist
Research Design	Convergent Mixed-Method
Target Population	3523
Accessible Population	1778
Sample Size	342
Sampling	Quota Sampling, Convenience Sampling
Data Collection	Questionnaire and Interviews
Data Analysis	Descriptive Statistics, SEM, Thematic Analysis
Pilot Testing	Groupe Ndoum Company Takoradi Technical University
Ethical Consideration Approval	University of KwaZulu-Natal (HSSREC/00000011/2019) (Appendix A1 & A2)

The study was carried out in some state-owned enterprises (SOEs) and tertiary institutions in Ghana. Ghana has over eighty-four (84) state-owned enterprises, comprising forty-four (44) wholly-owned state-owned enterprises and forty (40) joint venture companies (JVCs), operating in various sectors of the Ghanaian economy, which are either fully or partially owned by the government. Eighteen (18) of these state-owned enterprises, considered by the SOE Annual Aggregate Report (2016) as well governed, were selected for this study. These eighteen selected SOEs were from different sectors, including energy, water, agriculture, finance, communication, manufacturing, housing, mining, and transport.

Graduates and teaching staff from Ghanaian universities were also selected. These universities were the University of Cape Coast (UCC), University of Ghana (UG) and Cape Coast Technical University. The University of Cape Coast and the University of Ghana were selected for the study because they are considered as pioneers in the introduction and teaching of entrepreneurship in Ghana. The Cape Coast Technical University, which was formerly the Cape Coast Polytechnic, was selected for the study because of its traditional mandate of teaching vocational and technical programmes, as well as for its accessibility to the researcher.

The focus of this study was to evaluate the effects of entrepreneurship education on graduate employability in Ghana. The target population for the study consisted of three groups, namely:

1. All graduates deployed to do national service at the selected eighteen state-owned enterprises, from September 2018 to August 2019;
2. All human resources (HR) managers from the selected eighteen state-owned enterprises; and
3. All academics teaching entrepreneurship at the three selected universities in Ghana.

The target population for the study comprised of:

1. Three thousand, four hundred and eighty-eight (3,488) graduates deployed to do their national service, from September 2018 to August 2019, in eighteen state-owned enterprises;
2. Eighteen (18) HR managers from the selected state-owned enterprises; and
3. Seventeen (17) academics from tertiary institutions, specifically the University of Ghana (UG) in the Greater Accra Region, and University of Cape Coast (UCC) and Cape Coast Technical University (CCTU) in the Central Region, where entrepreneurship education is offered.

In total, a population of three thousand, five hundred and twenty-three (3,523) participants were targeted in the study.

Twelve out of the eighteen selected enterprises were accessible for data collection. The remaining six state-owned enterprises were not involved because the human resources managers were not willing to partake in the study. Therefore, the accessible population consisted of twelve enterprises, twelve HR managers and seventeen academics from the three tertiary institutions. The breakdown of the accessible population is as follows:

1. One thousand, seven hundred and forty-nine (1,749) graduates deployed to do national service from September 2018 to August 2019, at the twelve accessible state-owned enterprises;
2. Twelve (12) human resources managers from the twelve accessible state-owned enterprises; and
3. Seventeen (17) academics from the three selected tertiary institutions.

Therefore, this study utilised an accessible population size of 1,778 ($1749 + 12 + 17$).

The study employed quota and convenience sampling techniques to identify the graduates, and a census approach for the academics and the human resources managers. A census approach is an attempt to list all elements in a population of interest, and to measure one or more characteristics of these elements; in other words, census data are collected from all elements of the population (Kulshreshtha, 2013). The quota and convenience sampling techniques were used on graduates (1,749) who were doing their national service during the 2018/2019 academic year, specifically those deployed to the twelve (12) state-owned enterprises considered by the SOE Annual Aggregate Report (2016) as well governed. The census approach was utilised for the HR managers from the twelve SOEs, and the academics teaching entrepreneurship education in the three selected universities. A sample size of 342 (made up of 313 graduates, 17 academics and 12 human resources managers) was used for the study.

The instruments for the study included questionnaires and interview guides. The questionnaires were administered to graduates, while the interview guides were distributed to the human resource managers as well as to academics who teach entrepreneurship. The questionnaires and the interviews were administered to participants and conducted by the researcher, with the help of research assistants. The interview provided the researcher with the opportunity to ask supplementary probing

questions, to obtain further in-depth information from the respondents (Taylor, Sinha & Ghoshal, 2006). Thus, a multi-level system approach was adopted to maximize information available to the researcher, and to enhance data credibility.

Data collected from the questionnaire were analysed quantitatively, using both descriptive and inferential statistics; they were then edited to remove errors and coded accordingly. The data obtained were analysed using the computer software Statistical Product and Service Solutions (SPSS 21.0 version). The quantitative analysis involved the use of mean, standard deviation and structural equation modelling. The analysis of the interviews involved the usage of narration from participants' transcripts, data findings, describing data to derive meaning, and interpretation of raw data compared to the existing literature. NVivo 12 Pro was used to analyse qualitative data.

1.6 LIMITATIONS OF THE STUDY

The current study utilised non-probability sampling techniques (quota and convenience sampling), hence its results cannot be generalized. It must be noted that with the number of institutions that offer entrepreneurship education in Ghana, the sample of institutions selected cannot be considered comprehensive. Furthermore, the results of this study cannot be generalized, because there are more programmes similar to or considered to be superior to entrepreneurship education, which are designed with the intention of producing individuals who are capable of fitting easily into the labour market, either by way of employment seeking or creation. Hence, a person's participation in entrepreneurship education cannot be used as a yardstick for his or her automatic absorption into the labour market.

Entrepreneurial education, as a programme or course, is multidisciplinary in nature, and differs in terms of content, facilitation, aims, mode of assessment, duration of study, and purpose, amongst other things, even within a similar geographical area. Owing to this, graduates from these programmes are likely to exhibit a variety of characteristics, hence the effects of entrepreneurship education cannot be generalised, even within the same geographic context.

As a result of paucity of information on entrepreneurship education in an emergent economy, the researcher considered information from different fields in the study, to establish relationships between variables. In spite of all this, the study seeks to fill some research gaps in the areas of entrepreneurship education and graduate employability within developing economics.

1.7 THESIS STRUCTURE

This section focuses on the structure of the thesis and consists of five chapters:

Chapter 1: Chapter one presents the introduction to the study. The chapter discusses its background and context, problem statement, as well as the research objectives and questions. Other areas covered are the rationale of the study, a brief overview of the research methodology, the limitations, and its structure.

Chapter 2: Chapter two discusses the literature review of past theories and concepts in relation to this study. The conceptual review takes a look at key concepts on graduate employability, entrepreneurial capabilities and activities, and approaches to entrepreneurship education. The chapter also discusses impact studies in entrepreneurship education. Extant theories employed in this study in the areas of human capital development and entrepreneurship, are also discussed. Specifically, human capital theory and resource-based theory, are discussed in this section. The chapter also reviews existing studies on entrepreneurship education and the development and relevance of entrepreneurial capabilities, entrepreneurial activities, approaches to entrepreneurship education, and the effects of entrepreneurial capabilities on graduate employability.

Chapter 3: In this chapter, the research methodology adopted for the study is discussed. In sum, the research approach, research design, population, sample and sampling procedures, data collection methods, as well as the data analysis are discussed. Issues of reliability, validity mainly of pretesting of research questionnaires, and ethical considerations for the study, also form part of the discussion. The chapter also outlines the justification for the research methodology used.

Chapter 4: The analysis and interpretation of results for quantitative and qualitative data are discussed in chapter four. The quantitative data gathered from graduates from the various tertiary institutions in Ghana, who were involved in national service exercises within 2018/2019 academic year, are analysed by means of descriptive and inferential statistics. The qualitative data obtained from human resources managers and academics is analysed using NVivo 12 Pro. The chapter also presents a detailed discussion of the research findings in relation to the research questions and objectives, as well as the hypotheses.

Chapter 5: The chapter ends with the conclusion and recommendations of the study. The summary of findings, conclusions, and recommendations are presented in line with the research objectives. The limitations of the study and suggestions for further research, are also presented in this chapter.

1.8 CHAPTER SUMMARY

The chapter provided the introduction, background to and context of the research, problem statement, as well as the research objectives, questions and hypotheses. The rationale for the study, which highlighted the research gap in the studies on the impact assessment of the outcomes of entrepreneurship education, was presented. A brief description of the research methodology adopted for the study, a justification for the chosen research design, along with its limitations, were presented. The subsequent chapter will discuss the literature review on extant theories and concepts in entrepreneurship education, entrepreneurial capabilities and graduates' employability.

CHAPTER TWO

GRADUATE EMPLOYABILITY, ENTREPRENEURSHIP EDUCATION AND ENTREPRENEURIAL CAPABILITIES

2.1 INTRODUCTION

Chapter One focused on the introduction and background to the study. The current chapter discusses concepts, extant theories in areas of economics and human capital development, along with studies on graduate employability, entrepreneurial activities, approaches to entrepreneurship education, as well as impact measurement in entrepreneurship education. The extant theories cover human capital theory and resource-based theory, while existing studies on various relationships between the variables were also reviewed.

2.2 GRADUATE EMPLOYABILITY

The concept of employability has been researched in several countries, such as Ghana (Bawakyillenuo, Akoto, Ahiadeke, Aryeetey & Agbe, 2013; Boateng, Eghan & Adu 2015; Damoah, Peprah & Brefo, 2021), India (Mohan, 2013), Nigeria (Asuquo & Inaja, 2013), South Africa (Aliu & Aigbavboa, 2020), the United Kingdom (Benson, Morgan & Filippaios, 2013; Minocha, Hristov & Reynolds, 2017), and Taiwan (Pan & Lee, 2011), among others. Graduate employability has gained global recognition in the past few years, not because of evidence of interest shown by various governments, but because of the complexities associated with the recruitment of graduates that have been expressed by employers (Institute for Employment Studies, 2015). Research (Rudhumbu, Makambe, Mkali & Ndlovu, 2016) indicates that employers appreciate the aptitudes and attitudes of graduates, as much as academic qualifications. It is, therefore, essential for job seekers, who are mostly graduates, to develop the capabilities most demanded by potential employers and the labour market (Tan & French-Arnold, 2013; Al-Shehab & Al-Hashimi, 2021). Researchers (Nugroho, Nizam, Rahmat & Handayani, 2013; Griffiths, Inman, Rojas & Williams, 2018) conclude that to produce quality university graduates, institutions of learning should consider shaping their academic curricula in accordance with industry's demands.

The term "employability" was coined in the mid-1950s, but empirical research on the topic began in the 1990s, with an initial focus on the social and human capital surrounding them (O'Neil, Allred, & Baker, 1997; Su & Zhang, 2015). As a result of rising cases of unemployment, especially among graduates, issues of graduate employment and employability are now global. Research has established that graduate employment is worthy of discussion in professional settings, commentary reviews, the media, social media, national economic debates, employer surveys, political meetings, and employee forums (Samuel, Bassey & Samuel, 2012; Aida, Norailis & Rozaini, 2015; Rudhumbu, Makambe, Mkali & Ndlovu, 2016; Green & Henseke, 2021).

Related studies demonstrate how employability is defined as a factor that influences educational goals and practises (Jackson, 2013; British Council, 2015). Despite the fact that employability has gotten a lot of attention over the last decade, it still has no clear definition, which has led to the emergence of numerous interpretations and perspectives on it (Holmes, 2013; Jackson, 2013; Belwal, Priyadarshi & Al Fazari, 2017). Employability, for instance, is described as a student possessing the necessary skills and knowledge related to the work they desire to do (Republic of South Africa, 2011; Holmes, 2013). Bridgstock (2009) claims that this limited perspective focuses on generic and discipline-specific abilities, as well as initial employment outcomes. Though these classifications have the drawback of excluding the soft talents that companies value in graduates, they are nonetheless useful (Kim, 2012; Weissemann, 2012; Nwajiuba, Igwe, Akinsola-Obatolu, Ituma & Binuomote, 2020). Notwithstanding, in today's extremely competitive labour market, studies (British Council, 2015; Rudhumbu, Makambe, Mkali & Ndlovu, 2016; Suleman, 2018) reveal that employers have a keen interest in applicants' aptitudes and attitudes (soft skills), which include flexibility, problem solving and adaptability, confidence, teamwork, analytical skills, integrity, and communication skills.

It was noted that whilst some researchers defined the term in line with the type of skills (be it hard or soft skills) an individual possesses, others defined the term either from a job-getting approach, an individual attributes development approach, or from a supply-led or demand-led perspective (Hillage & Pollard, 1998; Knight & Yorke, 2000; Harvey,

2001; Paranjape, 2007; Rothwell & Arnold, 2007; Thijssen, Van der Heijden & Rocco, 2008; Chandrakumara, 2015). The job-getting approach or the supply-led approach relates to “the ability to secure a graduate (or appropriate) job within a specified time after graduation, to retain the post and to develop and succeed within the chosen career” (Knight & Yorke, 2000: 12). Paranjape (2007) also defined graduate employability from a job-getting approach, as the potential or capacity to remain economically active, without long spells of unemployment, and with wages that are commensurate with the inputs of the individual. The majority of the job-getting definitions of employability are relatively restricted, in that they do not truly assist academics in determining what skills graduates might possess that might aid them in finding work (Harvey & Knight, 2005).

From the perspective of an individual's qualities, employability is defined as an educational notion pertaining to graduates' competence to handle employment. As a result, graduates' employability refers to their capacity to obtain work, rather than being equipped for jobs through education or experience (Harvey, 2001; Knight & Yorke, 2000; van der Heijden, 2001). In this regard, Harvey (1999:4) defined graduate employability as “... the propensity of the graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organisation”. Yorke (2006:8) accordingly defined employability as “skills, understandings and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations, which benefit themselves, the workforce, the community and the economy”. Chandrakumara (2015) also defined employability from the individual attribute approach, as the possession of a set of knowledge, skills, as well as attributes that increase the likelihood of an individual choosing and securing an occupation.

The definitions of employability by Chandrakumara (2015) and Yorke (2006) are broad, in the sense that they do not consider employability as job-seeking requirements, but a means to choosing a desirable job, and contributing to its development and survival. Some scholars (Yorke, 2006; Hillage & Pollard, 1998; Bridge et al., 2010; Guilbert, Bernaud, Gouvernet & Rossier, 2016; Chhninzer & Russo, 2018) defined employability as the ability to work for others, which necessitates dependable attitudes, skills and

knowledge, in order to manage job positions, market oneself to managers, and grow along the career path over time. Rather than meeting specific employer demands, these definitions have placed a greater emphasis on student development and achievement, as well as learning for life, which are equally valued by employers.

Graduate employability, in a broader sense, can be defined as the non-market characteristics that portray a potential worker as an industrious team member, who values public good, appreciates multiplicity, and can solve problems (Kim, 2012; British Council, 2015). As a result, the definition focuses on a more holistic approach to employability, which considers personal traits (McQuaid & Lindsay, 2005), disciplinary differences (Barrie, 2004, 2006), and places employment in the context of a person's life, besides labour market demands (Rychen & Salganik, 2003). Hillage and Pollard (1998:2) consider employability as the “capability to move self-sufficiently within the labour market to realise potential through sustainable employment”. From a similar viewpoint, Jackson (2013) stated that graduate employability would result in both graduates learning the skills necessary by industry, and employers realising that graduate employability is more than merely filling skills shortages in the workplace.

In the context of this study, graduate employability is considered from both a job-getting or individual attributes development approach, and from a supply-led or demand-led perspective. This is because these definitions take into consideration both the soft and hard skills that are mostly needed by employers, as well as the capabilities that are likely to enhance the chances of graduates finding employment (Knight & Yorke, 2000; Su & Wu, 2006; Paranjape, 2007; Tan & French-Arnold, 2012; Jackson, 2013; British Council, 2015; Rudhumbu, Makambe, Mkali & Ndlovu, 2016).

2.3 GRADUATE EMPLOYABILITY AND THE SITUATION IN THE GHANAIAN LABOUR MARKET

Despite Ghana's youthful population being more educationally minded, the supply of skills required from tertiary institutions by the key growth and job-creating industries, remains insufficient (Country Operations Department, 2012). This is due to a misalignment between the skills and information required by companies, and the types

of educational programmes available (Osmani, Weerakkody, Hindi & Eldabi, 2019; Baah-Boateng, 2020; Hossain, Alam; Alamgir & Salat, 2020; Uddin, 2021). Most graduates of Ghana's universities, polytechnics, and other higher educational institutions used to be employed in the public sector; however, over the past few years, the situation has drastically shifted (Ampadu-Ameyaw, Jumpah, Owusu-Arthur, Boadu & Fatumbi, 2020). The contemporary labour market, primarily the formal sector, employs roughly 10% of the overall labour force, with the other 90% working in the informal sector or unemployed (British Council, 2016; Danish Trade Union Development Agency, 2020).

As many countries face economic issues, greater emphasis is being placed on the necessity for higher education institutions to produce quality graduates who, with their specialised knowledge and abilities, are needed (Teichler, 2007; Bezuidenhout, 2011; Garwe, 2013; Adesnia, 2013; Succi & Canovi, 2020). For instance, while the International Labour Organisation (ILO) argues that the global unemployment rate, which is 13.6 percent, was expected to rise by 0.1 percent in 2020 and 2021, the current unemployment rate stands at 8.7 percentage for sub-Saharan Africa and 7 percent for Ghana (Danish Trade Union Development Agency, 2020; International Labour Organisation (ILO), 2020). According to researchers (Garwe, 2013; Bah et al., 2015), this situation has exposed labour markets to immense pressures to absorb the massive numbers of graduates who are graduating from higher education each year. In addition to this, half a million people over the age of 15 will be added to the labour market by 2035.

There seems to be a mismatch between the supply of labour by tertiary institutions and the labour market demands in Ghana and globally (Damoah, Peprah & Brefo, 2021; Ngulube, 2020; Uddin, 2021). Researchers (Country Operations Department, 2012; Baah-Boateng, 2020) argue that although the education system in Ghana has produced a substantial number of literate students, especially graduates from tertiary institutions, the capabilities required by the labour market to ensure the production of goods and services are woefully inadequate, especially within the formal sector of the economy. As a result, there are more jobs, but insufficient labour – a challenge that has been aggravated simply because most graduates appear to select the available jobs they are equipped to pursue.

Most graduates now prefer to work in the informal sector for lesser pay because of the pressure and competition for formal sector jobs (British Council, 2016). Although research (Ali & Jalal, 2018) has established that finding a job and earning a good salary depends on one's ability to attain a higher qualification, it is still argued that university education in Ghana has failed to produce employable graduates, who can work for wage jobs or be self-employed (Dai Kosi, Tsadidey, Ashiagbor & Baku, 2008; Damoah, Peprah & Brefo, 2021).

Ghanaian universities have been considered as excessively academic and have failed to produce graduates who are innovative, entrepreneurial in nature, and can create jobs; rather, they have created individuals who are mostly job seekers (British Council, 2016). Employers that took part in research done by the British Council in 2016, found that the difficulties associated with looking for work and the resulting condition of unemployment in Ghana, are mostly due to a lack of employable graduates rather than a lack of employment prospects. However, it appears that stakeholders are unsure about the nature and scope of the problem, when attempting to build a link between higher educational institutions and graduate employment. This is due to a lack of tracer studies and reliable statistics on graduate unemployment, as well as formal input from businesses and educational institutions, due to insufficient coordination (Oliver, Whelan, Hunt, Hammer, Jones, Pearce & Henderson, 2011; Mgaiwa, 2021).

2.4 CONCEPT OF ENTREPRENEURSHIP CAPABILITIES

The term 'entrepreneurship capabilities' has been defined in different ways and with different motives by researchers in the fields of management, entrepreneurship and human resource management. Bird (1995:51), for instance, defined the term as the "underlying characteristics such as generic and specific knowledge, motives, traits, self-images, social roles, and skills which result in venture birth, survival, and/or growth". Man, Theresa and Chan (2002:124) also considered the term from a narrow perspective to reflect "the total ability of the entrepreneur to perform a job role successfully". This definition implies that entrepreneurial capabilities can only be found in entrepreneurs, and is not remarkably different from that of Ahmad (2007:22), who contended that it is the "individual characteristics that include both attitudes and behaviours, which enable

entrepreneurs to achieve and maintain business success”. In his research, Lackéus (2013:1) offered a broader definition for the term, by considering entrepreneurship competencies as “knowledge, skills, and attitudes that affect the willingness and ability to perform the entrepreneurial job of new value creation; that can be measured directly and indirectly; and that can be improved through training and development”.

Barazandeh, Parvizian, Alizadeh, and Khosravi (2015: 3) defined the term entrepreneurial capabilities as “(an) entrepreneur’s skills and entrepreneurial personality”. The term entrepreneurial capabilities will be used in this study to denote the totality of experiences, knowledge, skills, values, and attitudes that students acquire from entrepreneurship training or education, which are needed to ensure the effective and efficient performance of a given task. In defining the term entrepreneurial capabilities, it can be viewed either from an innate, internalized or natural perspective, or from an acquired, externalised or artificial perspective. The former represents inborn or internalised characteristics, such as traits, self-efficacy, image, attitudes, as well as social roles (Mohamad & Sidek, 2013; Barazandeh, Parvizian, Alizadeh & Khosravi, 2015), whilst the latter represents externalised characteristics, such as knowledge, experiences and skills that are learnt through theoretical or practical learning or work (Ahmad, 2007; Guzmán-Cuevas, Cáceres-Carrasco & Riberio-Soriano, 2009; Ismail, 2012; Santos & Bode, 2013). Research indicates that the innate, internalised or natural competencies are difficult to be developed or changed, whilst the acquired, externalised, or artificial ones can be developed through training, education and practice (Ahmad, 2007; Malekipour, Hakimzadeh, Marzieh & Zali, 2018; Castro & Zermeno, 2021).

Notably, several studies have reported different but related entrepreneurial capabilities over the years. Studies have, for instance, contextualised entrepreneurial capabilities, be they innate or acquired, into nine domains, namely: commitment, strategic, conceptual, opportunity, organising and leading, relationship, learning, personal, and technical competencies (Nakhata, 2018; Nakhata, 2018; Tehseen & Anderson, 2020; Rehman, Elrehail, Nair, Bhatti & Taamneh, 2020). The European Union (2017:32) has also developed an entrepreneurship capability framework made up of fifteen capabilities, namely: spotting opportunities, creativity, envisioning, valuing ideas, ethical and

sustainable thinking, self-awareness and self-efficacy, motivation and perseverance, as well as mobilising resources. Others are financial and economic literacy, mobilising others, taking initiative, planning and managing, coping with uncertainty, ambiguity and risk, working with others, and learning through experience. These fifteen competencies have been categorised into three broad areas as: ideas and opportunities, resource, and translation into action, as shown in Table 2.1.

Table 2.1 Entrepreneurship Capability Framework

Ideas and Opportunities	Resource	Translation into Action
Spotting opportunities	Self-awareness and self-efficacy	Initiative taking
Creativity	Motivation and perseverance	Planning and managing
Envisioning	Mobilising resources	Coping with uncertainty, ambiguity and risk
Valuing ideas	Financial and Economic literacy	Working with others
Ethical and sustainable thinking	Mobilising others	Learning through experience

Source: European Union (2017)

These capabilities, as indicated in Table 2.1, could also be grouped as: entrepreneurial attitude, entrepreneurial skills, and knowledge in entrepreneurship. Knowledge is defined as covering “mental models, declarative knowledge and self-insight; skills connote marketing skills, resource skills, opportunity skills, interpersonal skills, learning skills, and strategic skills, whilst attitudes are represented by entrepreneurial passion, self-efficacy, entrepreneurial identity, proactiveness, uncertainty/ambiguity tolerance, innovativeness and perseverance” (Lackeus, 2015: 37).

Researchers (Duval-Couetil, 2013; Bell, 2016; Clemente, Giner & Velez, 2020) have questioned the likelihood of graduates obtaining long-term work as a result of changing economic realities, such as labour-force shifts and downsizing, particularly in organisations and cultures where most graduates are solely prepared with job skills. Despite widespread reservations about the value of schooling, companies frequently assess gaps between candidates' skills and those necessary in the workplace (OECD &

ILO, 2014; World Economic Forum, 2014; Pimentel, Silva, Master & Amorim, 2016). Ling and Venesaar (2015: 334), therefore, argue that “the development of entrepreneurship competencies together with professional knowledge and skills, increase the competitiveness of students and graduates in the labour market”. These capabilities, as outlined by Lackeus (2015), are presented in Table 2.2.

Table 2.2: Entrepreneurial Capabilities

Sub Theme	Main Themes
Mental Models	Knowledge
Declarative Knowledge	
Self-insight	
Marketing Skills	
Opportunity Skills	
Resource Skills	Skills
Interpersonal Skills	
Learning Skills	
Strategic Skills	
Entrepreneurial Passion	
Self-efficacy	
Entrepreneurial identity	
Proactiveness	Attitudes
Uncertainty	
Innovativeness	
Perseverance	

Source: Lackeus (2015)

The current study expounds on what researchers (Augier & Teece, 2009; Zahra, 2008; Dyer, Gregersen & Christensen, 2009; Felin, Zenger & Tomsik, 2009; Xiang, 2009; Klein, 2008; Lackeus, 2015; Powell & Sandholtz, 2012; Abdelgawad, 2013) in entrepreneurship education consider as entrepreneurial capabilities that are perceived as useful by employers (Samuel, Basse & Samuel, 2012; Tan & French-Arnold, 2012; British Council, 2015; Rudhumbu, Makambe, Mkali & Ndlovu, 2016), and how these capabilities relate to what Oliver, Whelan, Hunt, Hammer, Jones, Pearce and Henderson (2011) consider as graduate employability indicators (see Table 2.3). The current study

seeks to argue that irrespective of the perspective on capabilities (internalised or externalised), they could be developed or changed through education.

Table 2.3: The fourteen capabilities that make up the Graduate Employability Indicators

Abbreviated title	Description
Knowledge	Work related knowledge and skills
Writing	Writing clearly and effectively
Speaking	Speaking clearly and effectively
Thinking	Thinking critically and analytically
Quantitative	Analysing quantitative problems
Using ICT	Using computing and information technology
Teamwork	Working effectively with others
Independent Learning	Learning effectively on your own
Intercultural Understanding	Understanding people of other racial and ethnic backgrounds
Problem-solving	Solving complex, real-world problems
Values & Ethics	Developing a personal code of values and ethics
Community Engagement	Contributing to the welfare of your community
Industry awareness	Developing general industry awareness
Social contexts	Understanding different social contexts

Source: Oliver et al. (2011)

The literature review showed that most of the capabilities considered by researchers or organisations, are generally related. Based on the literature review, Table 2.4 was developed, by blending these capabilities to create, it is believed, a more comprehensive set of graduate employability indicators, which contextualise the need of employers in Ghana.

Table 2.4: Graduate Employability Indicator derived from literature review

Variables	Sub Themes	Main Themes
Work-related knowledge and skills (Oliver et al., 2011) Developing general industry awareness (Oliver et al., 2011) Financial and economic literacy (European Union, 2017) Mental models (Lackeus, 2015) Declarative knowledge (Lackeus, 2015)	Knowledge	Knowledge
Writing clearly and effectively (Oliver et al., 2011) Speaking clearly and effectively (Oliver et al., 2011)	Communication Skills	Skills
Thinking critically and analytically (Oliver et al., 2011) Ethical and sustainable thinking (Oliver et al., 2011) Analysing quantitative problems (Oliver et al., 2011)	Strategic Skills	
Learning effectively on your own (Oliver et al., 2011) Learning through experience (European Union, 2017)	Learning Skills	
Working effectively with others (European Union, 2017) Understanding people of other racial and ethnic backgrounds (Oliver et al., 2011) Understanding different social contexts (Oliver et al., 2011) Valuing ideas (European Union, 2017) Working with others (European Union, 2017) Mobilising others (European Union, 2017)	Interpersonal Skills	
Planning (European Union, 2017) Time management (European Union, 2017) Management of materials (European Union, 2017)	Resource Skills	
Persuading (Lackeus, 2015) Assessing marketplace (Lackeus, 2015) Customer relationship (Lackeus, 2015) Conducting market research (Lackeus, 2015)	Marketing Skills	
Spotting opportunity (European Union, 2017)	Opportunity Skills	
Using computing and Information Technology (Oliver et al., 2011)	ICT Skills	
Self-awareness (European Union, 2017) Self-efficacy (European Union, 2017) Self-insight (Lackeus, 2015)	Self-Efficacy Skills	Attitudes
Initiative Taking / Envisioning (European Union, 2017)	Proactiveness	
Coping with uncertainty, ambiguity and risk (European Union, 2017; Lackeus, 2015)	Uncertainty	

Entrepreneurial identity and Entrepreneurial passion (Lackeus, 2015) Motivation and perseverance (European Union, 2017) Mobilising others (European Union, 2017)	Entrepreneurial Passion	
Developing a personal code of values and ethics (Oliver et al., 2011)	Values and Ethics	
Contributing to the welfare of your community (Oliver et al., 2011)	Community Engagement	
Creativity (European Union, 2017)	Creativity	
Solving complex, real-world problems (Oliver et al., 2011)	Problem-Solving	

Source: Own compilation

2.5 ENTREPRENEURIAL ACTIVITIES IN ENTREPRENEURSHIP EDUCATION

Educational institutions' efforts to produce graduates with entrepreneurial skills that encourage personal and economic development, while improving employability, are frequently referred to as skills development activities or initiatives (Fulgence, 2015). Employer participation in the development of curriculum and course material (Frye, Ketteridge & Marshall, 2009; Manwaring, Holloway & Coffey, 2020), extra-curricular activities (Kuh, Tchibozo 2007; Milner, Cousins & McGowan, 2016; Preedy, Jones, Maas & Duckett, 2020), practical field work and internship activities (Callanan & Benzing, 2004), career guidance for students (Bridgstock, 2009), professional clubs (Bridgstock, 2009), as well as career talks, volunteering, watching inspirational speakers, participating in competitions (Ndou, Secundo, Schiuma & Fassiante, 2018), among others, are considered as some such activities.

Employers value these entrepreneurship education projects or events because they impart entrepreneurial skills to students. According to studies (Lau, Hsu, Acosta & Hsu, 2013; Tchibozo, 2015; Ndou et al., 2018; Korzhov & Pasko, 2020), entrepreneurial activities improve knowledge, skills, attitudes, work-related traits, and experiences. As a result of these considerations, a graduate's employability may be predicted based on his or her engagement in entrepreneurial activities, which provides the impetus for the current study to explore how these activities have affected graduate employment.

2.6 APPROACHES TO ENTREPRENEURSHIP EDUCATION

Entrepreneurship education is often categorized into three approaches, namely: education and/or teaching about entrepreneurship, education and/or teaching for entrepreneurship, and education and/or teaching through entrepreneurship (Lackéus, 2013; Moberg, 2014). Although the terms education and teaching are often used interchangeably in the categorization of the approaches to entrepreneurship education, the current study will limit the use of the word “education” to: for, about, and through entrepreneurship. The approaches mentioned above are possible because of the distinction between the cognitive and non-cognitive skills that entrepreneurship education offers (OECD, 2009; Heinonen & Hytti, 2010; Lackéus, 2013; O'Connor, 2013; Moberg, 2014). Education "about" entrepreneurship, which entails a content-heavy and theoretical approach, solely concentrates on cognitively focused entrepreneurial abilities, in order to provide students with a general understanding of issues in entrepreneurship (Lackéus, 2013; Moberg, 2014; Piperopoulos & Dimov, 2014). In other words, the most popular technique in higher education institutions is education "about" entrepreneurship, which tries to instill in learners information about what entrepreneurs do and what entrepreneurship is (Mwasalwiba, 2010; Bell & Bell, 2020).

Education “for” entrepreneurship, or the demand model of entrepreneurship education, denotes the promotion of enterprising behaviour and focus on a vocational-oriented approach, to provide learners with the necessary entrepreneurial capabilities (Kozlinka, 2016; Lackéus, 2013; OECD, 2009). That is, entrepreneurship education attempts to develop individuals who can start their own firms or initiatives (Blenker et al., 2011; Hannon, 2005; Mathieu, 2006; Hoppe et al., 2017). Entrepreneurship education, according to Lewis (2002), focuses on the development of a set of skills, abilities, and characteristics that enable individuals, organisations, and communities to be flexible, creative, innovative, and adaptive in the face of rapid social and economic change.

Education “through” entrepreneurship refers to a process-based, frequently experiential approach, in which students participate in a real-world entrepreneurial learning experience (Kyrö, 2005; Vincett & Farlow, 2008; Lundqvist, & Williams Middleton, 2013). Education “through” entrepreneurship emphasises the usage of entrepreneurship

as a teaching methodology (Surlemont, 2007; Moberg, 2014). Education “through” entrepreneurship is inextricably linked with the concept of enterprise education, since it spans a far broader perspective than education “for” or “about” entrepreneurship (Gibb, 1992; Jones & Iredale, 2010; Moberg, 2014). The approach is amplified, according to Kirby (2004) and Seikkula-Leino et al. (2015), when educators use the development of the creation of a new venture, to assist students in acquiring a diverse range of business knowledge and skills or competencies required to function effectively in an organisation or society.

2.7 IMPACT STUDIES IN ENTREPRENEURSHIP EDUCATION

Impact evaluation of entrepreneurship education (EE) has been a challenge for both academia and industry (Rideout & Gray, 2013; Gafar, Kasim & Martin, 2014; Peterka, Koprivnjak & Mezulic, 2015; Nabi, Linan, Fayolle, Krueger & Walmsely, 2017). Martin (2014) observed that past studies on impact assessment strategies in entrepreneurship programmes, were not credible because of time interval factors, as well as differences in entrepreneurship programmes offered in various educational institutions across the globe. It is argued that research on impacts (be they positive or negative) of entrepreneurship education has been understood and carried out poorly; despite this, numerous studies have identified positive influences of entrepreneurship training on students’ supposed attractiveness and viability of establishing and sustaining a new business (Souitaris, Zerbinati, Al-Laham, 2007; Bakotic & Kruzic, 2010; Oosterbeek et al., 2010; Fayolle & Gailly, 2013). Other studies also reported negative outcomes of impact studies (von Graevenitz, Harhoff & Weber, 2010; Oosterbeek et al., 2010).

In general, there seem to be methodological challenges in studies on the impacts of entrepreneurship education, that have led to inconsistent assessments. This argument is supported Nabi et. al (2017), who noted that there is little rigorous research work available on the general effects of entrepreneurship courses and programmes. The argument is not different from that of researchers (Oosterbeek et al. 2010; Von Graevenitz et al., 2010; Lorz 2011; Johnson & Christensen, 2014), and others, who also concluded that studies have failed to establish the effects or impacts of entrepreneurship education on its products or society. Apart from these issues raised, literature argues that

some studies adopt pre-post or ex-post design, sometimes encompassing a control group as well as self-selected respondents, with a pre-determined and biased results favouring EE (Gorman, Hanlon & King, 1997; Graevenitz, Harhoff & Weber, 2010; Lorz, Mueller & Volery, 2013; Carpenter & Wilson, 2021).

In the same vein, studies also indicate that research on the influence of entrepreneurship education, in many instances, simply describes entrepreneurship courses (Gorman et al., 1997; Vesper & Gartner, 1997), and debates on what good entrepreneurship education or training content is (Fiet, 2001; Gafar, Kasim, & Martin, 2014). Others also evaluate the economic influence of EE, by comparing the employability of graduates who went through entrepreneurial training and those who did not (Loh Rahim, 2016). Although several authors (e.g., Alanazi, 2018; Martinez-Gregorio, Badenes-Ribera & Oliver, 2020; Seth, 2020) have established positive effects of educational programmes on students' entrepreneurial intentions to engage in entrepreneurial activities and on individuals' attitudes, most of these studies failed to distinguish between different forms of education and overlooked the potential of entrepreneurship programmes (Robinson & Sexton, 1994).

It is relevant to also note that diversity of approaches in the field of entrepreneurship education, in terms of the variety of stakeholders and target audience, aims, and content make the assessment and impact evaluation of EE very difficult (Sirelkhatim & Ganji, 2015). These divergences account for the inadequate number of studies regarding entrepreneurship education, and impact evaluation and assessment practices in this field (Fayolle & Gailly, 2008; Pittaway et al., 2009; Draycott et al., 2011; Pittaway & Edwards, 2012; Fayolle, 2013; Ndou, Secundo, Schiuma & Passiante, 2018). As a result of the plethora of EE approaches, researchers appreciate the need to look from many angles, when measuring its impacts (Cunningham & Lischeron, 1991; Johannisson et al., 1998; Fayolle, 2013). Pittaway and Cope (2007), and Ruskovaara (2014), therefore, suggest the urgency of evaluating and comprehending the elements within entrepreneurship education that are working and why.

It also argued that the influence of entrepreneurship courses and programmes cannot be similar in every context, hence it is proposed to undertake the relevant studies that can clearly distinguish situations under which entrepreneurship education can be effectively measured (Walter & Dohse, 2012). Falkäng and Albeti (2002) are also of the opinion that research and impact assessment methods in entrepreneurship training are not well defined, and that the means of measuring such impacts are not clear. Despite the challenges in impact assessment of EE, there has been an increased interest in this by different stakeholders (Pittaway et al., 2009; Mwasalwiba, 2010).

The measurement of the impact of entrepreneurship education can be done in several ways. Whilst Mwasalwiba (2010) suggested that it can be done by either assessing the advancement in EE as a discipline of study, or ascertaining students' advancement against standardised criteria. Vesper and Gartner (1997) proposed an impact indicator which includes the totality of publications by an institution's faculty, as well as the number of programmes and courses offered. Other indicators, according to Vesper and Gartner (1997), were the courses' influence on the development of society, innovations created, alumni involvement, outreach of scholars, as well as the number of alumni start-ups. Again, Falkäng and Alberti (2000) reiterated that impact studies in entrepreneurship education and programmes should focus on the relevance and appropriateness of the course content.

The most important indicators for impact assessment of EE, according to Mwasalwiba (2010), and Lüthje and Franke (2003), are new ventures created by the graduates of the curriculum, students' academic performance, and psychological constructs (including, but not limited to, students' perceptions, attitudes and intention to act, self-efficacy). Other indicators as suggested by Mwasalwiba (2010), and Lüthje and Franke (2003) were contribution towards societal development and technological advancement, as well as participant (student, alumni) satisfaction. Fayolle and Gailly (2008) are of the view that the evaluation criteria in impact studies in entrepreneurship education, should be associated with the assessment of cognitive and psychomotor skills, and students' interests. Fayolle and Gailly (2008) recommended other indicators to include awareness, intention levels, as well as social involvement in class activities, and argued that

extremely inadequate research had been done to evaluate the essential variables in education.

Different practical orientations concerning impact evaluation of entrepreneurship education also exist. Fayolle et al. (2006) categorized the aspects of measuring entrepreneurship education into two groups, namely: direct and indirect impact measurement. Fayolle et al. (2006) argued that the direct impact measurement had to do with the number of new ventures established or job creation by graduates, while the indirect one dealt with the enhancement of entrepreneurial spirit (developments of skills, attitudes and knowledge vital in promoting entrepreneurial behaviour and mindsets) within a target group. This position implies that impact research of entrepreneurial education is typically based on the use of subjective and objective measures.

On the one hand, the subjective measures of the impacts of EE often relate to changes in self-efficacy, attitudes, skills, and knowledge (Lüthje & Franke, 2003; Fayolle & Gailly, 2008; Mwasalwiba, 2010; Nabi et al., 2017, Ishmail, 2018). On the other hand, the objective measures focus on entrepreneurial capabilities, in line with nascent entrepreneurs' changes in behaviour, and the number of enterprises established by the graduates of entrepreneurship education (Smith, 2015; Kozlinska, 2016). However, the current study breaks the traditional boundaries of impact studies in entrepreneurship education, by considering and measuring its impacts on students' psychological constructs – changes in interest, attitudes, confidence, perceptions, abilities, skills, self-efficacy. The study also measures the impacts of entrepreneurship education by assessing enhancement in entrepreneurial spirit (developments of skills, attitudes and knowledge vital in promoting entrepreneurial behaviour and mindset) – within a target group, as suggested by Lüthje and Franke (2003), Fayolle and Gailly (2008), Mwasalwiba (2010), Kozlinska, (2016). These are from the perspectives of three different respondents, namely, graduates, lecturers and human resources managers.

Amidst the challenges and inadequacies that characterise studies on the impact of entrepreneurship education (Viswesvaran & Ones, 2000; Zheng & Liu, 2011), researchers (Zimmerer & Scarborough, 2008; Zheng & Liu, 2011; Fayolle & Gailly,

2013; European Union, 2015; Babatunde, 2016) have established that it influences the employability of graduates. Coelho, Loureiro and Ratten (2018) argue that entrepreneurship education provides students with the capabilities that are essential in the establishment of a business; it also inculcates critical decision-making skills in learners, that enhance their success in the job market. Matlay (2008) also investigated the impact of EE on employability, by exploring its impacts on students' entrepreneurial knowledge, skills and attitudes, among sixty-four (64) final year undergraduate students pursuing various degrees in eight (8) higher education institutions in the UK. Matlay's evaluation of respondents' answers showed that entrepreneurship education impacted the knowledge and skills required to embark on an entrepreneurial career. The study revealed that before students participated in entrepreneurship education, most of the participants had average knowledge on entrepreneurship and very low specific entrepreneurial capabilities.

2.8 EXTANT THEORIES FOR THE STUDY

This section discusses the theories used for the study. This study employed the human capital theory and the resource-based theory. The purpose of using these theories is to develop a complete framework that establishes the links between how entrepreneurial capabilities are gained and then utilized.

2.8.1 Human Capital Theory

Human capital theory (HCT) tries to expatiate the rationale behind investing in individuals, and benefits that they gain from activities that are meant to ensure their holistic development. Becker (1964: 402) stated that "in human capital theory, people rationally evaluate the benefits and costs of activities, such as education, training, expenditures on health, migration, and the formation of habits that radically transform the way they are". In essence, the theory contends that individuals or groups with higher levels of knowledge, skills, and other competencies, as a result of educational investment, are more likely to achieve better performance outcomes compared to those with lower levels of information, skills, and other competencies (Ployhart & Moliterno, 2011; Nassazi, 2013; Adom & Asare-Yeboah, 2016).

Researchers (Ucbasaran, Westhead, & Wright, 2008a; Beach, 2009; Unger, Rauch, Frese, & Rosenbusch, 2011; Mamabolo, 2016) conceptualise human capital as competencies that are manifested in the ability to accomplish a function, in order to create economic value. The theory, according to Becker (1964), advocates that education or training instils essential competencies in workers, with the intention of helping them increase their efficiency and productivity in an organization. These capabilities are often developed via educational investments and acquired experiences (Gibb, 2002; Cope, 2005; Unger et al., 2011; Adom & Asare-Yeboah, 2016), and constitute a vital asset that is distributed differently among personalities; as a result, it is critical to comprehend differences between these personalities, in order to explore and identify opportunities (Shane & Venkataraman, 2000; Anderson & Miller, 2003; Gartner et al., 2005; Ehrlich, Li, & Liu, 2017).

At every phase of entrepreneurship education, the need to develop entrepreneurial capabilities (skills, knowledge, attitudes, etc.) in learners is critical because of their role in organisational and individual performance (Hashim, Raza & Minai, 2018; Behling & Lenzi, 2019; Macedo, Hahn, Bianchi & Ogoshi, 2020). Cooper, Gimeno-Gascon and Woo (1994; 372), therefore, argue that “if a framework can be developed to predict new venture performance before major financial and other investments have been made, it can lead to substantial benefits for entrepreneurs, those who supply resources to them, and for researchers. It may permit the identification of ‘high risk’ or ‘high potential’ businesses at an early stage”. Ucbasaran, Westhead and Wright (2006) also opine that each phase of the process in the entrepreneurial journey, provides the individual with the opportunity to accumulate the entrepreneurial capabilities needed to augment their basic human capital endowment. These capabilities can be contextualized into specific and general components which constitute human capital. These skills have been classified by researchers as venture-specific human capital, entrepreneurship-specific human capital, and general human capital (Ucbasaran et al., 2006; Trang, Do & Luong, 2019).

Unger, Rauch, Frese, and Rosenbusch (2011) also contextualise these capabilities as task-related and non-task-related human capital. Task-related human capital or entrepreneurship-specific human capital relates to activities of starting and running a

business, such as industrial and start-up experience, as well as previous business owner experience (Mamabolo, 2016; Trang, Do & Luong, 2019). Non-task-related human capital or generic human capital is not associated with activities of starting a business, but has individualised human capital characteristics not limited to age, education, gender, management or technological expertise, which are universal to all forms of economic activity (Dimov & Shepherd, 2005; Zarutskie, 2010; Marvel, Davis & Sproul, 2016).

Alternatively, Hickie (2012) and Choi and Chang (2020) established a clear dichotomy between venture-specific and entrepreneurship-specific human capital. Hickie (2012) argued that the former is associated with an individual's capabilities and experience gained from entrepreneurship education relative to specific markets, while the latter is connected to the entrepreneurial capabilities associated with venturing into a new start-up that he or she gains from EE, but not necessarily in the same field as that start-up. Venture-specific human capital, according to Ucbasaran et al. (2006: 29), has to do with "an entrepreneur's knowledge of the venture domain relating to customers, suppliers, products, and services".

Formal education, work experience, and age are often considered by researchers as the common measures of general human capital (Unger et al., 2011; Martin, McNally & Kay, 2013; Kozlinska, 2016; Hatak & Zhou, 2021). However, several entrepreneurial start-up activities, as well as experiences which are seen as immediate predictors of development and survival, are regarded as the determiners of entrepreneurship-specific human capital (Unger et al., 2011; Estrin, Mickiewicz & Stephan, 2016; Choi & Chang, 2020). At the core of the theory of human capital is the concept of education and/or training. As a result, if an entrepreneur needs to add to his or her fountain of capabilities, then formal education or training is essential (Zainol, Al Mamun, Ahmad & Simpong, 2018). In this vein, Becker (1993: 392) argues that "training may change a lifestyle from one with perennial unemployment to one with stable and good earnings". The theory emphasises that the superiority of an employee's human capital and this resource, often translate to an employee's ability to perform a specific task (Becker, 1975). Studies conducted by Kourilsky and Walstad (2007), Pickernell, Packham, Jones, Miller, and Thomas (2011), and Kuzminov, Sorokin and Isak (2019) on human capital theory, have also established

a positive relationship between attainment of a higher education and entrepreneurial activities and development. For instance, Hickie (2012: 771), reported that “entrepreneurs with higher education have significantly higher performance than those with medium levels of education - high school graduates or some college”.

In understanding the effect of entrepreneurship education and training, the human capital theory propounded by Mincer (1958) and Becker (1964) promises a better appreciation of such impacts (Martin, McNally, Kay, Michael, 2013). Since entrepreneurial capabilities can be considered as a stock of human capital, graduates’ possession of these resources must mean that they receive a wage premium, separately from their human capital standard, such as education or labour market experience (Hanushek & Zhang, 2009; Kucel, Masferrer-Llabines, & Vilalta-Bufi, 2013). The arguments of the proponents and the various elements of the entrepreneurship human capital theory have been presented in Figure 2.1 below.

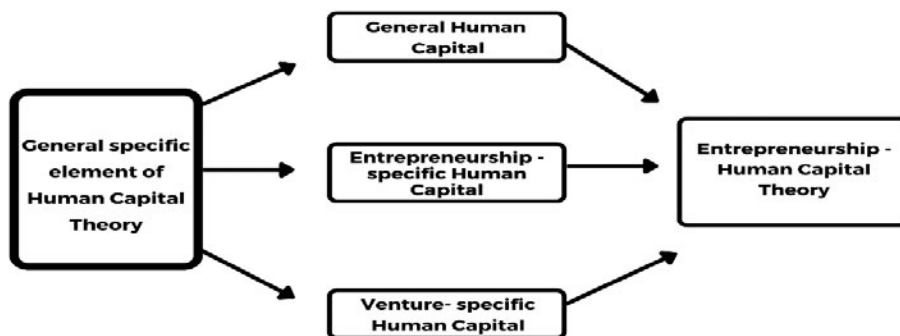


Figure 2.1: Diagrammatical representation of Entrepreneurship Human Capital Theory
Source: Own compilation

The current study will employ two major components of entrepreneurship-specific human capital according to Hickie (2012), namely entrepreneurial capability and attitudes, to explore how entrepreneurship education ensure their development in learners.

2.8.2 Resource-based Theory (RBT)

In trying to establish a connection between an organisation's resources and performance, the resource-based theory (RBT) has been universally accepted as a research lens (Barney, 1991; Powell & Dent-Micallef, 1997). The theory expounds on the reasons behind disparities in the performance of firms in relation to resources. It argues that any organisation is positioned to create a sustained competitive advantage over other organisations, if the organisation has its own distinctive resources that are of value, rare, inimitable, and non-substitutable (VRIN). Firms that possess these resources are able to produce goods or services to satisfy human needs with maximum effectiveness, efficiency and growth over a period of time.

RBT theory argues that a firm's resource should possess four distinct characteristics (VRIN), in order to provide a competitive edge. The value of the firm's resource is explained in terms of its ability to help in cost minimization and threat mitigation, thereby increasing the net revenue. The resource is also expected to be rare so as to provide the firm with monopolistic ability. The perfect inimitability of a resource implies difficulty in duplicating this resource, while non-substitutability implies that the resource should not have close substitutes. The distinct nature of a resource, therefore, requires firms to search and acquire resources that are likely to position them to maximise profit, as they compete in the same environment with other industrial giants (David & Simpson, 2017; Vasudevan 2021).

Resource-based theory is based on the assumption that there is heterogeneity in intangible factors, hence firms differ in terms of the resources and capabilities that they possess at any moment. Competitive advantage is achieved when the economic rents from resources are obtained on the basis of market factors and their imperfections, and not merely the imperfections of the market of products (Camara, 2018). Heterogeneity of resources and capabilities, therefore, explains the difference in performance between firms, and influences a firm's reaction to strategic decisions. The current study employed RBT on the assumption that a firm's internal resources represent the strategic capabilities that ensure proper usage of resources, and increase competitive advantage, which leads to higher productivity and performance.

The applicability of the theory in the current study, was based on the fact that it provides employers with the opportunity to understand the mix of resources that are required to ensure the sustainability of market competitiveness, evaluate organisational resources, and provide a strategy for resource utilisation (Asiedu, 2019). Despite the contributions of RBT, it has been criticised for failing to provide employers or managers with a technique of creating and acquiring resources that are rare, valuable, non-substitutional, and inimitable, or how they can control resources (Shafeey & Trott, 2014). It is also argued that the theory fails to indicate to firms the human capital that is needed to gain competitive advantage (Sanchez, 2008).

2.8.3 Justification for the Use of the Theories

In summary, it is worth noting that there are various arguments concerning the degree to which entrepreneurship education can be taught, as well as the competencies that can be developed through it (Bechard & Gregoire, 2005; Elmuti, Khoury & Omran, 2012; Field, 2014; Jesar, 2015; Pounder, 2016). On one side of the coin, if one agrees that entrepreneurship competencies are personality traits or inborn (Kerr, Kerr & Xu, 2015), then, because education and training rarely modify a person's basic personality, EE is unlikely to have a significant impact (Bryant, 2006). Alternatively, if it is admitted that entrepreneurial competencies are mostly developed through experience (Chiru, Tachiciu & Ciuchete, 2012; Department of Business Innovation and Skills, 2015), then education and training could have a major effect on their development. Researchers who believe in the efficacy of entrepreneurial education and training in developing competencies, differ as to the degree to which such interventions should be practical and experience-based, rather than formal classroom training (Markman et al., 2002; Jesar, 2015; Pounder, 2016).

Although Becker's (1964) human capital theory has made significant contributions to research on human management, it has been critiqued for specific reasons. Specifically, it has been criticized for relegating the role of other domains of an individual, especially the psychomotor domain. The theory propounds the development of the cognitive abilities of the individual through education. However, studies by Heckman and

Rubinstein (2001), and West et al. (2016) on the non-cognitive domain, indicated that the development of competencies does not necessarily relate to capabilities that are developed by individuals through their experience, reasoning or senses. West et al. (2016) argue that the non-cognitive domain of the individual, which consists of behaviours, learning strategies, mindsets, attitudes, and social abilities, can have a significant impact on how people learn. Self-efficacy, grit, motivation, self-control, resilience, optimism, hope, and the capacity to collaborate with others are all entrepreneurial attributes (Heckman & Rubinstein, 2001; Luthans et al., 2007, 2008; Avey et al., 2010a, West et al., 2016), and are all neglected features of the affective domain in Becker's theory.

Besides the criticism, human capital theory has a number of advantages for studying entrepreneurial growth and development, since human capital may evolve and change over time, whereas personality and qualities are more permanent. HCT argues that competencies (skills, knowledge and attitude) derived from education and related experiences, have economic value (Becker, 1964). As a result, the study sees these entrepreneurial competencies as elements that can be learnt through education and exposure to experiences.

A blend of human capital theory and resource-based theory would help to elucidate the relationship between innate capabilities acquired through investments (education – both formal and informal) in human capital, and their value within an organisation. Again, as human capital can be developed or changed over a period of time, on the one hand, personality traits as well as qualities, on the other hand, are seen to be more stable over time (Mamabolo, 2016), the combination of the two theories is essential for this study. The study is also situated on the premise that as students are exposed to the right content, pedagogy, approaches, and skill development activities, they learn and develop new as well as innate skills. These capabilities are needed by graduates to aid them in seeking employment opportunities, compete favourably in the labour market, and contribute to a firm's competitive advantage. This process of the acquisition of competencies is enhanced through investments (education) in human capital in graduates from tertiary

institutions. Therefore, to better understand the outcomes of entrepreneurship education, the human capital and resource-based theories are combined in this study.

2.9 EXISTING STUDIES ON THE RELATIONSHIP BETWEEN STUDY VARIABLES

This aspect of the literature review concentrates on previous studies in line with the study objectives.

2.9.1 Entrepreneurship Education and Development of Entrepreneurial Capabilities

As a result of changing economic realities regarding labour force shifts and downsizing, researchers (Duval-Couetil, 2013; Bell, 2016; Green & Henseke, 2021) have questioned the probability of graduates gaining employment, especially in the formal sector as well as in societies where most graduates are equipped with only employment skills. Although there are common concerns regarding the value of education, employers often consider the gaps between the capabilities that candidates possess and those required at the workplace (World Economic Forum, 2014; Pimentel, Silva, Master's, & Amorim, 2016; Fahimirad, Nair, Kotamjani, Mahdinezhad & Feng, 2019; Prikshat, Montague, Connell & Burgess, 2020).

Entrepreneurship education and entrepreneurial capabilities embody hard and soft skills, which are necessary for graduates to either create their own jobs, or to enhance their employment opportunities in the labour market (Lapina & Sceulovs, 2014; Pimentel, Silva, Master, & Amorim, 2016; Premand et al., 2016; Jones, Pickernell, Fisher & Netana, 2019). The European Union (2012) posited that the intention of teaching EE is to develop responsible and enterprising personalities, with the necessary entrepreneurial capabilities to attain goals that they set, for both their individual organisations or public enterprises, as well as for themselves, in order to live a meaningful life. In examining the entrepreneurship education needs among artisans and craftsmen in Enugu State, Nigeria, Ona (2006) found that entrepreneurial capabilities comprising of skills in public relations, accounting, marketing, management, record-keeping, as well as communication, represented important elements for entrepreneurs' success.

Mumuni, Bowan and Insah (2013) examined the influence of a competency-based approach to entrepreneurship education on the acquisition of relevant entrepreneurial capabilities, and it was found that EE positively affected the development of entrepreneurial capabilities. Unfortunately, their study could not present an analysis of the qualitative data. In 2013, Sánchez also conducted a study on the effect of entrepreneurship courses and programmes of an entrepreneurship education programme, on entrepreneurial capability development and intention. The study found that entrepreneurship courses and programmes increased students' entrepreneurial competencies in the study group, while the competencies of those in the control group did not. Although the study assessed the effect of entrepreneurial education on a limited number of entrepreneurial capabilities, its contribution to knowledge and research on the significant role entrepreneurship education plays in developing entrepreneurial competencies was far-reaching. A study by Okoro (2014) also examined the effect of entrepreneurship programmes on entrepreneurial capability development among students in four federal south-eastern universities in Nigeria, and concluded that EE enhanced the development of entrepreneurial competencies among undergraduate students.

Oboreh and Nneba (2019) also conducted a study to investigate the effect of entrepreneurship education on the skill acquisition of graduates in some public universities in Nigeria, and found that it had a positive influence on the development of their entrepreneurial skills. However, the study could not specify the exact skills or competencies that students had acquired from entrepreneurship education. Yang (2018) found that EE influenced the development of entrepreneurial capabilities in graduates, specifically, that it resulted in the development of proactiveness, risk-taking propensity and innovativeness. Adeyemo, Ogunleye, Adeyemi, and Kareem (2021) similarly conducted a study to determine the effects of entrepreneurship education on entrepreneurial competency development, and found that it had a positive influence on polytechnic students' competency acquisition in Nigeria. However, Aurik and Astri's (2018) study to ascertain the differences in entrepreneurial capability development among students who read programmes in entrepreneurship and management, revealed that there were no significant differences in the entrepreneurial capabilities developed by the cohorts.

The current study, therefore, predicts that entrepreneurship education has the potential to influence the development of entrepreneurial capabilities among graduates.

2.9.2 Relevance of Entrepreneurial Capabilities to Organisations

As research on the relevance of tertiary education in the transition to a knowledge-based economy grows, tertiary institutions are being required to produce employable graduates who have acquired the necessary capabilities to work effectively within an organisation, and are able to adjust to the ever-growing needs of industry and the labour market (Suleman, 2018; Mainga, Daniel & Alamil, 2022). The burden on tertiary education institutions, especially universities, to produce graduates who are employable has increased drastically in recent times (Crayford, Fearon, McLaughlin, & van Vuuren, 2012; König, Juric & Koprivnjak, 2016; Behle, 2020).

In an era of growing unemployment among graduates, issues have been raised about the ability of job applicants to meet the expectations and requirements of employers (Romgens, Scoupe & Beusaert, 2020; Damoah, Peprah & Brefo, 2021). Recruiters, generally, demand the services of a graduates who are well-rounded, with not only technical knowledge and skills, but also the behavioural ones, and who are willing to make sacrifices for the survival and development of the organisation (Rynes, Herath & Ranasinghe, 2011; Department of Business Innovation & Skills, 2015; Okolie, et. al, 2020; Succi & Canovi, 2020). As a result of the quest to train the current and future human resources with the capabilities currently demanded by labour markets, the relevance of entrepreneurship training and/or programmes has been acknowledged, particularly at the tertiary level. There is, therefore, an increasing demand on educational institutions to foster the development of entrepreneurial capabilities in graduates, to enable them to compete favourably in the labour market (Gibb, 2008; Pauceanu, Rabie & Moustafa, 2020).

Interestingly, as employers argue about the capabilities of graduates from higher educational institutions across the globe, educators there believe that the former have failed to appreciate the kind of potential that the latter have, and the contributions they could offer to ensure the transformation of organisations (Griesel & Parker, 2009; Teng,

Pahlevansharif & Turner, 2019; Pauceanu, Rabie & Moustafa, 2020). Studies have established the relevance of entrepreneurship capabilities in a firm's performance (Hoyos-Ruperto et al., 2013; Sidek, 2013; Lazar & Paul, 2015; Tehseen & Ramayah, 2015; Foster, 2018; Pulka & Mohamad, 2021), while others (Foster, 2018; Pulka & Mohamad, 2021) have shown that these are needed by organisations to increase their sustainable competitive advantage. Lazar and Paul (2015) concluded that employees who possess entrepreneurial competencies are able to coordinate, monitor and organise firms' internal and external resources, which ensures their effective performance. Mahadalle and Kaplan (2017) also argue that aside from the ability of employees with entrepreneurial capabilities to assist in resource mobilisation and efficient utilisation, the possession of knowledge of tools and instruments about a job, and the mastery of tasks and work content, are essential qualities that help organisations to develop a sustainable competitive advantage.

Researchers (Mahadalle & Kaplan, 2017; Hashim, Raza & Minai, 2018; Macedo, Hahn, Bianchi & Ogoshi, 2020) have argued that entrepreneurial capabilities are essential ingredients that promote business growth. A study conducted by Macedo, Hahn, Bianchi and Ogoshi, (2020) on entrepreneurs in Santa Catarina, Brazil, found that entrepreneurial capabilities influenced the performance of Micro, Small and Medium Enterprises (MSMEs). Sarwoko (2013), and Mahadalle and Kaplan (2017) opine that employees' entrepreneurial capabilities assist an organisation in developing corporate vision and strategy, improve its ability to weigh risks and take them, assist it in identifying its clients' needs, as well as assist in budget planning, development and preparation. Laguna, Wlechetek and Talk (2012) also stipulate that these entrepreneurial capabilities improve managers' abilities and the success of the business. Laguna et. al (2012) further argue that entrepreneurial capabilities provide a manager with a creative approach to solving problems, and help in identifying and reducing difficulties that affect organisational performance.

A study by Abaho, Sylvia, Ntayi and Kisubi (2016) on capabilities, entrepreneurial competency and performance of Ugandan small and medium-sized enterprises, found that entrepreneurial capabilities help firms to create new markets and meet new market

demands in an innovative manner. The study also found that entrepreneurial capabilities enable firms to marshal resources needed to enhance innovation and access clients. Mohamad and Sidek (2013) also revealed a mediating role of entrepreneurial capabilities in the performance of microfinance institutions and small enterprises, and found that those such as technology adoption, business expansion strategies, and problem-solving skills are useful in improving the performance of the business unit. Mohamad and Sidek (2013) further argued that these entrepreneurial capabilities positively correlate with the sustainability and growth of enterprises. Sanchez (2011) also conducted a study to ascertain the effects of the influence of entrepreneurial competencies on the performance of small firms in Spain, and discovered that they play a significant role in competitive advantage, organisational capabilities and, in general, firm performance.

Studies (Baron, 2008; Cardon, Singh & Drnovsek, 2009; Cardon, Gregoire, Stevens & Patel, 2013; Biraglia & Kadile, 2016) have established that entrepreneurial passion leads to positive consequences, such as higher levels of performance and wellbeing, opportunity identification, exploration and exploitation, as well as positive emotions, expressed as pride, love, enthusiasm, and joy towards one's job or profession. This implies that entrepreneurial passion inspires entrepreneurs to develop their confidence, overcome challenges, and remain focused on their entrepreneurial activities (Biraglia & Kadile, 2016). Laaksonen, Ainamo and Karjalainen (2011) confirmed that when an entrepreneur is highly motivated and holds positive emotions about his or her job, he or she is able to remain focused, maintain a high level of creativity, and recognise crucial new ways in the exploration and exploitation of opportunities.

A study by Cardon et al. (2009) found that when an entrepreneur holds inventor identity, entrepreneurship passion will influence opportunity recognition, basically because of its impact on effective problem-solving. Cardon et al. (2009) also argued that when entrepreneurs belong to the founder identity school of thought, then their entrepreneurial passion is likely to impact venture creation because of the effect it has on problem-solving and persistence; however, when the salient role is developer identity, then entrepreneurial passion will impact effectiveness in venture development because of its effect on absorption and persistence.

Researchers (Cherian & Jacob, 2013; Agu, 2015) have also established that self-efficacy influences the performance and productivity of employees. Studies conducted by Agu (2015) and Hellervik, Hazucha, and Schneider (2002) found that, for an organisation to maximize productivity, an employee must possess relevant self-efficacy, as this trait plays a crucial role in influencing one's choices, level of commitment and effort, as well as perseverance. Cherian and Jacob (2013) found that self-efficacy influences the ability to acclimatize oneself with technological advancement, handle changes in career plan, generate new ideas, perform efficiently as a team member, and the ability to develop more competencies. Cherian and Jacob's study (2013) on analysing the effect of self-efficacy on employee performance, found that, overall, it has a positive influence. The study argued that self-efficacy impacts the organisational behaviour of practising professionals, thereby influencing their confidence in delivery and performance. Other studies by Baum and Locke (2004), Forbes (2005a), Hmieleski and Corbett (2008), and Hmieleski and Baron (2008) also established a relationship between entrepreneurial self-efficacy and venture performance.

In their study, Ahlin, Drnovsek, and Hisrich (2012) found that in order to foster the innovativeness of all employees, a proactive organisation must be built first. Ahlin et al. (2012) further argued that developing proactive employees was essential for an organisation to overcome challenges, by recommending innovative solutions as well as preventing problems before they arose. According to Marcati, Guido and Pelsuo (2008), this is achieved through firms' proactiveness that can be achieved through intuition, long-term vision and open-mindedness. A study conducted by Kikul and Walter (2002) concluded that one significant entrepreneurial attribute that serves as a determining factor as to whether a firm will utilise information on new opportunities to develop and integrate e-innovations, is the personal attribute of proactivity.

Graduates' ability to enhance their skills in coping with uncertainty, are seen as an element that is necessary to promote the sustainability and development of an organisation. A study by Byrne (2012) found that the ability of a graduate to embrace uncertainty, satisfied not only the interest of the organisation in the short term, but also assisted in its sustainability and survival in the long term. The study also established that

a graduate's ability to cope with uncertainty, is considered as one of the most influential employability skill sets for 21st century engineers to work in society and to ensure its development. Findings of a study conducted by Meijer (2008) depicted that the ability of entrepreneurs to cope with uncertainty, impacted their decisions and actions concerning innovation.

Other studies (Bigiardi, 2013, Wijetunge & Pushpakumari, 2013, Bakar & Zainol, 2015) have also established a significant link between innovativeness, financial performance, general business performance, and product or service quality. For instance, studies by Wijetunge and Pushpakumari (2013) found that organisational innovativeness positively impacted the performance of businesses. Studies conducted by Bigiardi (2013) as well as by Bakar and Zainol (2015) also concluded that an increase in the level of staff innovativeness, resulted in an increase in organisational performance. Egbetokun, Siyanbola, Olamade, Adeniyi and Irefin (2008) likewise argued that incremental innovation is significantly linked to the production of quality products and services.

It has also been established (Milan, de Toni & Dorion, 2010; Oliphant, 2016) that an entrepreneur's mental model triggers his or her ability to combine limited resources from different environmental contexts, to solve challenges and to efficiently maximise scarce resources for productivity. The mental model also provides the entrepreneur with the direction in which he or she should navigate within the working environment, to ensure the effective management of resources as well as the ability of staff to communicate ideas to team members for support. Vijay and Ajay (2011) also found that entrepreneurial skills provide entrepreneurs with the ability to recognise, utilise and develop market opportunities. The study further argued that the entrepreneurial capabilities of a graduate assist an organisation in identifying better quality opportunities, and encourage him or her to embrace the risks needed to turn such opportunities into useful outcomes.

Researchers (Van Gelderen 2012; Covin & Miller, 2014; Gerschewski, Lindsay & Rose, 2016) in entrepreneurship and enterprise education have established the relevance of perseverance as a motivating factor in business start-up and growth. Studies conducted by Covin and Miller (2014), Gerschewski, Lindsay and Rose (2016), and Van Gelderen

(2012) have confirmed that perseverance is a vital attribute that assists in the starting and running of entrepreneurial ventures, and is directly related to continuous goal setting and attainment in the face of organisational difficulties or challenges. Van Gelderen (2012) also argued that any entrepreneurial or enterprising activity(ies) requires a spirit of perseverance, since the potential barriers and/or challenges are numerous, and the rate of occurrence is likely to make it impossible for the entrepreneur to keep up the initial levels of motivation required to ensure the sustainability and the survival of the venture.

2.9.3 Entrepreneurial Activities and Development of Entrepreneurial Capabilities

The approach by educational institutions of producing graduates with entrepreneurial capabilities that promote personal and economic development, and enhance employability, is often considered as skills development activities or initiatives (Precision, 2007; Rahman, Majid, Zubair, Yusof, Ghalib, Dzulkifli, Janon & Shuib, 2012; Fulgence, 2015; Abelha, Fernandes, Mesquita & Seabra, 2020). Some of these initiatives include employer involvement in the design of the curriculum and content of courses (Cranmer, 2006; Weligamage, 2006; Frye, Ketteridge & Marshall, 2009), extracurricular activities (Tchibozo 2007; Mabrouk, Jawad, Abdelmabood & Marzouk, 2020; Alnaeem, 2021), practical fieldwork and internship activities (Bhattacharya & Neelam, 2018; Bilsland, Carter & Wood, 2019), career guidance for students (Bridgstock, 2009), professional clubs (Bridgstock, 2009; English, Scheepers, Fleischman, Burgess & Crimmins, 2021), career talks, participating in business plan competitions (Watson, McGowan & Cunningham, 2018; Tipu, 2019), as well as volunteering and watching inspirational speakers (Adesola, Outer & Mueller, 2019; Okolie, Nwajiuba, Binuomote, Ehiobuche, Igu & Ajoke, 2020).

Active participation in extracurricular activities ensures the development of desirable capabilities in students (Mabrouk, Jawad, Abdelmabood & Marzouk, 2020; Alnaeem, 2021). A study by Alnaeem (2021) indicated a positive relationship between extracurricular activities and communication skills development in students. While employers are certain about the usefulness of extracurricular activities in the development of competencies, graduates also appreciate the skills they have developed because of their participation in these. As studies by Lau, Hsu, Acosta and Hsu, (2014),

as well as Tchibozo (2007) found, employers find participation in such events beneficial to the workplace, while the testimonies of graduates also claim that participation in ‘non-market-oriented extra-curricular activities’ is a good means to develop the employability attributes sought after by employers. However, the degree of involvement, diversity, duration, and frequency of such activities, seem to play a crucial role in impressing employers (Tchibozo, 2007; Ndou, Secundo, Schiuma & Passiante, 2018).

Studies (Bangerter & Roulin, 2013; Ivaniushina & Zapletina, 2015; Castro & Zermeno, 2021) have also confirmed a positive relationship between participation in extracurricular activities and labour market outcomes. As studies have concluded, most fresh graduates possess little or no work experience, and as such, it is their participation in extracurricular activities which sheds light on qualities that are usually not taught in the classroom (Ivaniushina & Zapletina, 2015; Brown & Hesketh, 2004). This assertion was buttressed by Merino (2007), whose study confirmed that graduates who were involved in extracurricular activities, found jobs more closely related to their line of studies than those without involvement in such activities. Additionally, students who could not get the opportunity to engage in extracurricular activities, were believed to possess lower occupational capabilities than individuals who did (Tchibozo & Pasteur, 2007).

It has been further established (Ivaniushina & Zapletina, 2015; Castro & Zermeno, 2021) that participation in extracurricular activities, promotes the development of psychological traits in learners. Cuschieri’s (2012) study revealed that participation in extracurricular activities helps to boost personal development, including enhancing self-confidence, self-esteem and self-worth. The study also confirmed that participation in student organisations, provide opportunities for students to practice roles that are essential for their professional career development, and that serve as a good link between academic knowledge and practical experience in areas such as: goal setting, time management, decision-making, planning, problem-solving, enhancing communication skills, and a better conceptualization of their own abilities and talents. Studies have also reported that extracurricular activities provide a favourable context for the psychological growth and development of students (Bohnert, Fredricks & Randall, 2010; Eccles & Roeser, 2011; Ivaniushina & Zapletina, 2015; Castro & Zermeno, 2021). Furthermore,

other studies (Cuschieri, 2012; Bangerter & Roulin, 2013; Lau, Hsu, Acosta & Hsu, 2014; Ivaniushina & Zapletina, 2015) indicate that extracurricular activities have a positive impact on students' employability, and that the degree to which specific capabilities are developed is dependent upon the degree of involvement in these activities.

Studies (Aggett & Busby, 2011; Adjei, 2013; Chen, Hsiao, Chaang & Chou, 2017; Bhattacharya & Neelam, 2018; Bilsland, Carter & Wood, 2019) have established that internships assist students in developing several capabilities in generic areas, like communication, human resource management, personal relationships, decision-making, planning, as well as effective team participation. A study conducted by Ebner and Soucek (2021) indicated that internships facilitate labour market entry, since it promotes positive employability perceptions among graduates, by inculcating the right entrepreneurial capabilities and reducing job entry worries. Adjei (2013) also revealed that industrial work experience reinforces classroom learning, and produces skilled and knowledgeable students with productive and employable skills. In related studies conducted by Overton, Kelly, McAlister, Jones and Mac Vicar (2009), and Martin et al. (2011), it was revealed that students are able to develop personal confidence and professional career paths as a result of their exposure to and participation in experiential learning opportunities that were not part of classroom activities. The capabilities that students acquire from participating in these activities are, according to Brown et al. (2003), associated with graduate employability. In essence, practical attachments assist students in the development of transferable capabilities, as they experience real work activities (Mason et al. 2009; Paisey & Paisey, 2010).

Research conducted by Johnson (2000), Okay and Sahin, (2010), as well as by Karunaratne and Perera (2015) also concluded that, since the labour market does not necessarily require only individuals with higher academic knowledge, but rather individuals with core capabilities that are needed to promote organisational performance and competitive advantage, participation in internship increases the marketability of graduates. This is because studies (McMahon, 2004; Juhdi et al., 2010; Fulgence, 2015) have concluded that through an internship or practical attachment, individuals develop

their career, are exposed to various cultures and ethnic backgrounds, improve their communication skills, as well as develop essential information management capabilities. A study conducted by Chen, Hsiao, Chaang and Chou (2017) on the effect of off-campus internship programmes on university students' entrepreneurial attitudes and capacity, also concluded that these assisted students in gaining relevant job experience. Chen et.al (2017) again argued that internships help students in identifying, appreciating, and developing their strengths and weaknesses, and improved students' employability and/or entrepreneurial capabilities. The value of industrial attachments to students is irrefutable (Mengistu & Mahesh, 2019; Ranabahu, Almeida & Kyriazis, 2020; Ebner, Soucek & Selenko, 2021); however, previous research shows that organisational and employee characteristics influence interns' experiences during these (Abdi & Dorathy, 2019; Ibrahim, Zin & Vengdasamy, 2020).

Research (Egbe-Okpenge & Igbo, 2013; Paul, 2013; Okolie, Nwajiuba Binuomote, Igu & Ajoke, 2020) has indicated a positive relationship between career guidance and employability. Paul (2013) concluded that graduate employability is influenced significantly by career guidance. Okolie, Nwajiuba Binuomote, Igu and Ajoke (2020) found that career guidance enhances career ambitions and interests, development plans, graduate employability, and the development of competencies that are sought by employers. A study conducted by Egbe-Okpenge and Igbo (2013) investigated the relationship between the availability of career counselling and the development of entrepreneurial capabilities among Nigerian students, and established that a positive relationship exists between them. Studies by Herr (2003), Bhuyan (2007), Obi (2013), and Izuchi and Obed (2017) also identified the essential role of career guidance in promoting an environment that is psychologically conducive, and which stimulate and inspires entrepreneurial spirit among students. Daudu (2007) and Papert (1996) in their studies also recognised the value of counselling, in creating a space where students are provided with the guidance and tools to map their way forwards.

Partaking in activities at an entrepreneurship club, provides students with capabilities which are crucial in promoting employability during their professional careers, irrespective of the motive or aim of the club. Academics often associate the development

of students' entrepreneurial capabilities with engagement in professional clubs (Pittaway, Gazzard, Shore & Williamson, 2015; Preedy, Jones, Maas & Duckett, 2020), as well as its impact in increasing their participation with professional practices, and assisting them in learning through an experiential approach (Blimpo & Pugatch, 2020). The development of oral and written skills, and skills in management and enterprise, are also considered as some of the benefits of taking part in club activities (Montes & Collazo, 2003; Ndou et al., 2018), and help to improve students' employment prospects (Rutter & Jones, 2007; Thirunavukarasu, Chandrasekaran, Betageri & Long, 2020). Researchers (Pittaway, Gazzard, Shore & Williamson, 2015; Ndou et al., 2018) are also of the opinion that through participation in entrepreneurship club activities, students are able to develop personal motivation and self-confidence.

Ebede (2015) argued that students develop a better appreciation of conceptual themes that facilitate their learning experiences, as a result of the formal and informal communication and interactions between individuals' experiences. The study further argued for the need to acknowledge the crucial role played by students' organisations, as these clubs provide valuable and practical approaches to learning, as well as platforms that facilitate the sharing of experiences and engagement in future career activities. Similarly, Cooper, Herly and Simpson (1994) opined that the tendency to gain relevant capabilities, was greater for students who had the opportunity to participate in club activities, than for those who did not. In a related study, Huang and Chang (2004), as well as Preedy et al. (2020), also found that in the United States of America, students' participation in clubs often defines the development of their interpersonal capabilities, while enhancing their marketability within a career path more than their academic certificate.

Andrews (2007) also argued that student clubs and other related activities, enhance the acquisition of relevant educational and developmental values, that cannot be attained in the classroom. In their study, Gassman, Reed and Widner (2014) found that students' leadership activities outside regular classroom activities, contribute to the development of the leadership potential of graduates. Foubert and Grainger (2006) also found that there is a strong positive correlation between students' involvement in clubs and their

level of psychological development. Despite the importance of professional or entrepreneurship clubs in ensuring the development of entrepreneurial competencies, Pittaway, Gazzard, Shore and Williamson (2015) argued that studies on the effects of students' clubs on entrepreneurship education have been inadequate. It is against this background that the study tries to explore these avenues in EE in Ghana, and their relevance in the development of entrepreneurial competencies.

Although there are mixed reports in studies (Holdworth & Quinn, 2010; Smith, 2010; Hoskins, Leonard & Wilde, 2020) on the effects of volunteerism on employability, the educational benefits of volunteering on attitudes, behaviours and values, and the psychosocial aspects of an individual cannot be underestimated. Studies (Low et al., 2007; National Youth Agency (NYA), 2007; Drever, 2010; Stukas, Hoye, Nicholson, Brown & Aisbett, 2017; Zainea, Toma & Tohanean, 2019; Liszt-Rohlf, Fields, Gerholz, Seco & Haury, 2021) have indicated that students develop confidence, self-esteem, and learn new skills through volunteering, such as organisational, communication, and group skills. Research (Hirst, 2001; NYA 2007; 2008) has proved that volunteering is considered as a tool to prepare for employment. Researchers (Kay & Bradbury, 2009; Sports Leaders, 2013; Streetgames, 2014) have also reported an increase in organisational and self-management skills, as a result of participation in volunteerism. Streetgames (2014) concluded that organisational skills, such as discipline and interpersonal skills, as well as specific skills, including coaching, leadership, and working with young people, are developed through sporting volunteerism. However, NYA (2008) argued that not enough has been done to ascertain the effects of volunteerism on competency development, and its ripple impact on graduate employability.

It has been established (Watson, McGowan & Cunningham, 2018; Tipu, 2019) that business plan competitions promote the development of entrepreneurial competencies. Watson, McGowan and Cunningham (2018), in their study to explore business plan competitions as a methodology to promote nascent entrepreneurial learning, found that they serve as way to promote entrepreneurial learning activities among graduates. Interestingly, their findings were not different from that of Tipu (2019), who found that

business plan competitions facilitate the development of entrepreneurial competencies, networking opportunities, and access to mentors. The findings of the study conducted by Qureshi, Saeed and Wasti (2016) found that business plan competitions had positive effects on the relationship between a learner's personality, intellectual development, identity aspirations, and general entrepreneurial competencies. The findings were in line with that of Russell, Atchison, and Brooks (2008) who found that business plan competitions in entrepreneurship education, provide students with mentorship opportunities, develop their entrepreneurial competencies, improve their self-confidence, and increase the propensity for risk taking and mitigation. Bell (2010) argued that these real-world, practical education competencies and experiences, that students encounter through EE, not only whip up their interest to set up new ventures, but are of significant interest to employers.

These activities in entrepreneurship education are important to employers because they provide students with entrepreneurial capabilities. Studies conducted on the effects of entrepreneurial activities have shown a positive impact on the development of knowledge, skills, attitudes, work-related characteristics, as well as experiences (Stuart et al., 2011; Lau, Hsu, Acosta & Hsu, 2013; Tchibozo, 2015; Adesola et al., 2019; Okolie et al., 2020). Owing to these arguments, it can be assumed that the employability of a graduate can be determined by his or her participation in entrepreneurial activities. This study tries to establish how these activities influence graduate employability by proposing that:

H₁: Entrepreneurial activities in entrepreneurship education positively affect the development of entrepreneurial capabilities of graduates

2.9.4 Approaches to Entrepreneurship Education and Development of Entrepreneurial Capabilities

Although research (Markowska, 2011; Akhmetshin, Mueller, Yumashev, Kozachek, Prikhodko & Safonova, 2019; Farrukh, Raza, Sajid, Rafiq, Muhammad, Hameed & Ali, 2021; Colombelli, Panelli, & Serraino, 2022) has indicated that entrepreneurial capabilities can be acquired (through experience) and developed (through education),

psychological theorists are of the view that the development of these capabilities through education are not feasible, since these capabilities are inborn or inherent (Hickie, 2012; Nagler & Naude, 2014). In contrast to this argument by psychological theorists, there are a number of studies (Huq & Gilbert, 2013; Sawaya & Bhero, 2018; Kozachek, Prikhodko & Safonova, 2019; Farrukh, Raza, Sajid, Rafiq, Muhammad, Hameed & Ali, 2021 Colombelli, Panelli, & Serraino, 2022) that have established the significance of entrepreneurship education on entrepreneurial capabilities development. This presupposes that those entrepreneurial capabilities should not be considered as innate characteristics that a group of individuals possesses, but rather a set of processes that an entrepreneur goes through.

Studies (Danish Foundation for Entrepreneurship, 2014; Colombelli, Paneli, & Serraino, 2022) in entrepreneurship education have indicated that the approach used (education about, education for, and education through entrepreneurship) influences the development of either the cognitive (business-oriented) or the non-cognitive (enterprising) entrepreneurial competencies. However, studies on strategies through which these approaches impact entrepreneurial capability development have been minimal (Piperopoulos & Dimov, 2014; Colombelli, Paneli, & Serraino, 2022; Zhao, Zhao, Shi, Du, Marjerison & Peng, 2022). This current study seeks to explore how the different approaches to entrepreneurship education affect entrepreneurial capability development in graduates.

Research (Lackéus, 2013; Moberg, 2014; Piperopoulos & Dimov, 2014) on entrepreneurship education has indicated that the approach used affects the development of entrepreneurial capabilities, according to its various aims. A significant relationship has been established between the purpose of the approach to EE and the capabilities that students are expected to acquire. A study by Lackéus (2013) argued that the education “about” entrepreneurship approach to entrepreneurship education, influences the development of a general understanding of the issues in entrepreneurship. The advocates of the education “about” entrepreneurship approach argue that it aims to inculcate an understanding in students regarding what entrepreneurs do and what entrepreneurship is, which implies the selection of content with its focus solely on cognitively-oriented skills

development for entrepreneurship (Lackéus, 2013; Moberg, 2014; Piperopoulos & Dimov, 2014; Amalia & Korflesch, 2021).

The advocates of the education “for” entrepreneurship approach argue that its focus is to ensure the development of individuals who can create their own businesses or ventures (Blenker et al., 2011; Hannon, 2005; Mathieu, 2006; Amalia & Korflesch, 2021). A study by Lewis (2002) asserts that the approach seeks to inculcate in the student a sense of capabilities, as well as attributes, that help organisations to enhance their flexibility, creativity and innovation during periods of global political, economic and social transformation. Co and Mitchell (2006) also argue that education for entrepreneurship is taught with the sole intention of developing the present and future entrepreneurs, by inspiring processes in entrepreneurial practice, and offering students the appropriate strategies necessary to practice or establish a new venture. That is, education for entrepreneurship implies developing an entrepreneur equipped to create and sustain a business (Mwasalwiba, 2010). Furthermore, in a study conducted by the OECD (2008), it became evident that education for entrepreneurship primarily influences the development of a variety of capabilities, including teamwork, critical thinking, risk management, among others.

The proponents of the education for entrepreneurship approach are also of the view that the type of teaching methods selected, influence the entrepreneurial capabilities to be developed (Kozlinska, 2016). Mkala and Wanjau (2013) argue that when entrepreneurial knowledge, skills and attitudes need to be inculcated in students, the education for entrepreneurship approach is adopted. The advocates for the education about the entrepreneurship approach argue that since it is meant to ensure the development of individuals’ cognitive ability, the use of a lecture-based or traditional method is appropriate (Mwasalwiba, 2010; Tasnim, 2012; Arasti, Falavarjani & Imanipour, 2012; Fatoki, 2014). The lecture-method of teaching in entrepreneurship education, provides space for repetition and memorization of important entrepreneurial capabilities by learners (Larson, 2000; Mwasalwiba, 2010). Fayolle and Gailly (2008) also found that the teacher-centred approach to knowledge transmission, promotes the usage of teaching methodologies that foster the absorption of knowledge.

A study conducted by Fatoki (2014) found that the traditional lecture method of teaching in entrepreneurship, provides opportunities for students to develop, construct, and study the theories related to entrepreneurship, venture and firm creation, and the contribution of entrepreneurs to economic growth and development. The study further found that the traditional lecture method, as recommended by the advocates of educating about entrepreneurship, ensures the development of entrepreneurial processes and is based on the transfer of knowledge about entrepreneurship. The study also revealed that the teaching method fails to develop entrepreneurs as such, but rather employees for entrepreneurs. Their finding was in line with Mwasalwiba (2010), who argued that the education about entrepreneurship approach is less effective in promoting the development of entrepreneurial attributes, and produces passive participants.

Other researchers such as Mkala and Wanjau (2013), as well as Smith and Paton (2011), also found that the traditional lecture method and its associated “chalk, blackboard and talk” strategy to the teaching of entrepreneurship, implies the development of cognitive ability and the creation of entrepreneurial awareness, leading to the production of knowledgeable persons. The findings of the study were consistent with those of Adedeji and Rahman (2018), who argued that the method is less responsive in developing the needed entrepreneurial capabilities, and that students are trained to look for jobs rather creating employment. It can be deduced from the discussion, that the education about entrepreneurship approach only fosters the development of capabilities related to entrepreneurship processes, and not development of entrepreneurs.

It has been established that the education through entrepreneurship approach, focuses on both the development of cognitive and non-cognitive entrepreneurial competencies (Moberg, 2014; Amalia & Korflesch, 2021); hence the approach recommends the use of a teaching strategy(ies) that ensures the holistic development of graduates. Its proponents, therefore, advocate for an action-oriented strategy (Lackeus, 2013). Moses, Oluwafunmilayo, Olokundun, and Gbenga (2015: 56) found that action-oriented strategies “contribute to the building of critical leadership skills, inculcate the advantages of extraordinary commitment to extra-curricular work, and dedication of one’s time to learning of enterprise and ethical governance principles within their communities”. The

adoption of an action-based strategy to the teaching of entrepreneurship is able to enhance individuals' capabilities in critical thinking and analytical skills, information identification and evaluation, as well as in designing and implementing organisational strategic plans (Moses, Olokundun & Gbenga, 2015).

Makimurto-Koivumaa and Belt (2015) found that when an action-based strategy is employed, learning takes place outside actual instructional sessions, and becomes highly reflective and self-evaluated. Makimurto-Koivumaa and Belt (2015) further argued that during reflection in and on action, as suggested by Schön (1983), the developmental and knowledge construction processes of students are supported. This strategy provides the opportunity for learning experiences, collaborative learning, teamwork, continuous reflection, self-efficacy, self-insight, as well as perseverance (Zuber-Skerrit, 2002). Furthermore, studies (Arvaja, Häkkinen, Rasku-Puttonen & Peltö, 2002; Hytti & O'Gorman, 2004; Heinonen & Poikkijoki, 2006; Fayolle & Gailly, 2008) have revealed that the action-based strategy recommended by the proponents of education through entrepreneurship, provides an opportunity for students to actively participate in the learning process, inspires experience and ensures the understanding of entrepreneurial issues. Kirby (2004b) also established a relationship between education through entrepreneurship and the development of competencies. Kirby argued that the use of business context enhances the effective use of the enterprise creation process, which assists individuals in developing a proper understanding of their business, and the acquisition of transferable competencies.

Research (Marope, Griffin & Gallagher, 2017; Olokundun, 2017) also indicates that the content of a programme influences the type of capabilities to be inculcated. Education about entrepreneurship, which is sometimes referred to as a theoretical or content-oriented course, focuses on increasing the knowledge of students who are entrepreneurs, what they do, and how they do it, as well as general information on entrepreneurship education (Honig, 2004; Kuratko, 2005; Mwasalwiba, 2010; Piperopoulos & Dimov, 2014; Sirelkhatim & Ganji, 2015). Education for entrepreneurship, which is considered as a practically-oriented or occupationally-oriented course (Lackeus, 2013; Piperopoulos & Dimov, 2014; Sirelkhatim & Ganji, 2015), is meant to encourage and enhance the

intention of participants (graduates) to be future entrepreneurs. Lastly, education through entrepreneurship, also known as an action-oriented course aimed to train entrepreneurs, promotes new venture creation and develops entrepreneurial capabilities (Bridge, Hegarty & Porter, 2008; Vincett & Farlow, 2008; Lundqvist & Williams Middleton, 2013; Sirelkhatim & Ganji, 2015).

The proponents of education about entrepreneurship argue that the content of the approach centres on topics relating to entrepreneurial traits, economic success, awareness and understanding of entrepreneurial knowledge, as well as entrepreneurial success; indeed, the selection of such topics assists the individual in the inculcation of cognitive-oriented competencies (Piperopoulos & Dimov, 2014). Fiet (2000) found that in order to develop the cognitive skills needed to assist in making sound and meaningful entrepreneurial decisions, the content of education about entrepreneurship should be theoretically-oriented. Backstrom-Widjeskog (2010:112) also found that teachers perceive the content of education about entrepreneurship as “personality and skills developing activity that should permeate school work with the aim to develop strong identities and promote self-efficiency based on pupils’ own values”. Backstrom-Widjeskog (2010) further implied that the content of education about entrepreneurship, influences the development of individualised and socially-directed entrepreneurial capabilities that manifest in personal qualifications, contrary to functional entrepreneurial competencies needed for self-employment.

Bennett (2006) asserts that the curriculum content of education for entrepreneurship takes a skill-based approach, where attention is placed on providing students with the competencies about the mechanisms of running a business. Backstrom-Widjeskog (2010) advanced this argument by concluding that the content of education for entrepreneurship, emphasises a relationship between educational institutions and the corporate world, with the aim of producing graduates for working life. The content of the approach, therefore, argues for capabilities that are geared towards the development of vocationally or occupationally-oriented qualifications, as well as the actual needs of society (Backstrom-Widjeskog, 2010; Lackéus, 2013).

Fayolle and Gailly (2013), and Piperopoulos and Dimov (2014) buttressed this finding by postulating that the content of the approach is meant to afford students a bouquet of competencies, which are needed to promote entrepreneurial practices in idea generation and opportunity recognition, change adaptability, creativity and innovation, commercialisation, as well as risk-taking. Backstrom-Widjeskog (2010) concluded that practical or practice-oriented content fosters the development of characteristics and ways of thinking, that allow participants to explore alternatives and solve real-world business challenges themselves. The author further confirmed that the approach ensures that the content selected is student-centred, while the student's immediate environment provides a meaningful platform for developing entrepreneurial competencies.

The education through entrepreneurship approach, with its aim of developing entrepreneurial graduates, promotes the development of new businesses and entrepreneurial capabilities (Bridge, Hegarty & Porter, 2010; Lundqvist & Williams Middleton, 2013; Vincett & Farlow, 2008). Sirelkhatim and Gangi (2015) found that the content of the approach provides students with learning “with” and “through” real-life entrepreneurial experiences, that enable their development as entrepreneurs. The finding was in line with that of Vincett and Farlow (2008), who contend that the content of the education through entrepreneurship approach assists learners to experience being entrepreneurs, rather than pretending to be them. Vincett and Farlow's (2008) findings also confirm that of Dabbagh and Menascé's (2006), who found that the approach focuses on enabling students to pitch business ideas to investors and shareholders, while providing them (students) with the opportunity of experiencing a “real feel” of market forces.

Studies have investigated the effects of the different approaches to entrepreneurship education on the development of entrepreneurial capabilities, as supported by Bell and Bell (2016). It is therefore hypothesised that:

H₂: Entrepreneurship education positively affects the development of the entrepreneurial capabilities of graduates

H_{2a}: Education *for* entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates

H_{2b}: Education *about* entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates

H_{2c}: Education *through* entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates

2.9.5 Entrepreneurial Capabilities and Graduate Employability

Entrepreneurial capabilities have the potential to make employees useful in an organisation or industry (Aliu, 2007; Bakar, Islam & Lee, 2015). Entrepreneurship education has been found to promote the development of both hard and soft skills in students. This is not surprising, as studies (Hoang, Le, Tran & Du, 2020; Shah, Amjed & Jaboob, 2020) posited that the intention of teaching entrepreneurship education is to develop responsible and enterprising personalities, with the necessary entrepreneurial competencies to attain both individual and organisational goals.

Researchers (Samuel, Bassey & Samuel, 2012; Tan & French-Arnold, 2012; British Council, 2015; Rudhumbu, Makambe, Mkali & Ndlovu, 2016) have argued that, while academic certificates are crucial in the recent, highly competitive labour market, it is jobseekers' soft skills (attributes, problem-solving skills, flexibility and adaptability, teamwork, confidence and integrity, analytical skills, and communication skills), which are mostly acquired through entrepreneurship education or training, that are more essential to employers. In the same vein, Pereira (2016) argued that the development of entrepreneurial skills and capabilities are important to increase graduates' employability.

A study conducted by Damoah et al. (2021) on the perception of employers regarding the extent to which higher education equipped graduate students with employability skills, revealed that knowledge, enterprising leadership skills, teamwork skills, technical management skills, and interpersonal skills were perceived to be relevant by employers. Other employability skills were numeracy skills, communication skills, creativity and innovation, IT literacy skills, and learning skills.

Tejan and Sabil (2019), in their study to understand the perception of employability skills in Morocco, also found that employers require graduates to possess capabilities in leadership, an analytical mind, communication skills, as well as creativity. Capabilities in teamwork, work culture and planning were also seen as crucial. Eurobarometer's (2010) study revealed that almost all the capabilities listed in the survey, were rated as either very or rather important by recruiters, when recruiting graduates from higher educational institutions. Specifically, the survey showed that skills, notably teamwork and computer literacy, were rated at 88% and 98% as very or rather important, respectively, when recruiting graduates. The study reported that competencies such as reading and writing ability, adaptability, communication skills, as well as analytical and problem-solving skills were also rated as important by the majority (between 82% and 100%) of graduate recruiters; meanwhile, organisational skills and planning, decision-making skills, and good numeracy skills were rated as important when recruiting, by 80% of the respondents. Kleeman (2011), in a literature review on employability capabilities, found that communication, leadership, work culture, teamwork, conceptual and or analytical skills, learning theory and practice, professional qualities (ethics and self-management), as well as organisation or planning are the most needed employability skills needed by graduates in the hospitality industry to succeed in the labour market. The study found that communication skills were rated higher than the other skills.

A study conducted by Lowden, Hall, Elliot and Lewin (2011) found that employers seek specific capabilities from tertiary education graduates. These capabilities were teamwork, problem-solving, self-management, knowledge of or about the firm, communications and technological knowledge, literacy and numeracy, good interpersonal skills, initiative, and leadership skills. Other capabilities considered valuable by employers were motivation, tenacity, and commitment. The study also found that the capabilities perceived to promote graduates' employability, as identified by representatives from higher education institutions, were an enterprising, ethical, and enquiring nature, as well as involvement in learning and university life, amongst other capabilities. Other capabilities identified by them were work experience, participation in committees or extra-curricular activities, capacity to perform tasks independently, creativity and ability to solve problems, time management, presentation skills, self-

confidence, as well as graduates' willingness to learn and accept responsibility for their development. Uarta, Sumintana, Sudhana, Harriyanti (2017) confirmed that employers need graduates who possess entrepreneurial capabilities in communication, problem-solving, decision-making, self-awareness, self-confidence, creativity and initiative, willingness to learn, and lifelong learning.

In a study, Freire, Álvares and Montez (2011) established that capabilities, such as leadership abilities, understanding, communication, customer service, and emotional intelligence, are the most needed for effective performance at the workplace. An alternative view expressed by Rivera, Gallego, Álvares, Inchaustieta, Albizuri and Alvarez du Eulate (2012) stated that capabilities needed to find employment, and to remain and develop within an organisation, include willingness to work, people skills, responsibility, effort, as well as interpersonal skills. It is the opinion of Benson, Margan and Fillipaio (2013) that social as well as some inborn traits are considered important, and sought after more than technical skills by employers. The argument of Benson, Margan and Fillipaio (2013) could be considered relevant as Jonck and van der Walt (2015) argue that some personality traits are pivotal in ensuring career development. Asuquo and Inaja (2013) also reported that graduates should possess capabilities in networking, teamwork, persistence, continuous learning, risk-taking, as well as optimism and flexibility. Murugan and Ganapathy (2020), also, argued that these entrepreneurial capabilities are vital in determining graduate employability.

A study conducted by Premand, Brodmann, Almeida, Grun, and Barouni (2012) concluded that, in economies with low market demand for labour and increasing incidents of graduate unemployment, youth can only be developed to attain economic and financial independence, by inculcating in them the right entrepreneurial capabilities through entrepreneurship education. Soundararajan, Ravikumar and Aro-Gordon (2020) found that employers desire graduates to possess entrepreneurial capabilities, such as critical thinking, effective communication, teamwork, and problem-solving. Adofu and Akoji (2013) also conducted a study on the influence of the acquisition of entrepreneurship capabilities on poverty reduction in the Kogi State of Nigeria, and found

that respondents attributed inadequate entrepreneurial capabilities among the youth as the fundamental cause for the high incidence of poverty in Nigeria.

The British Council (2016) conducted a survey to evaluate graduate capabilities needed by employers in Ghana. The study found that employers emphasized the capabilities in the various fields that graduates study, as well as their ability to possess other relevant skills from other fields. The survey also pointed out that one's attitude and involvement in community activities and service, patriotism, willingness to stay in harmony with individuals from other backgrounds, and environmental awareness, represented qualities valued by employers. It was also noticed that employers were willing to recruit graduates with job-related experience, work-related skills, as well as practical skills, in order to reduce the resources that they (employers) expended in retraining graduates. Interestingly, these capabilities become relevant within an organisation, where there is a good work environment and employees are willing to work (Audretsch & Belitscki, 2017; Malecki, 2018).

The current study therefore proposes that:

H3: Entrepreneurial capabilities positively affect the employability of graduates

2.10 PROPOSED CONCEPTUAL FRAMEWORK OF THE STUDY

Studies (Mensah, 2013; Valerio, Parton & Robb, 2014; Mahadalle & Kaplan, 2017) have indicated the relevance of entrepreneurship education programmes in the development of both the individual and the society. However, despite the investments by governments as well as individuals in the teaching of entrepreneurship, there are arguments (Lin & Huang, 2015; Zhu, Zhang & Ogbodo, 2017; Tade, 2020; Pittaway, 2021) as to whether entrepreneurship education merits these investments (OCED, 2018; Ndala, 2019).

There is limited research establishing the correlation between processes in entrepreneurship education, and the products of these processes; hence, it is challenging for practitioners in education to understand and appreciate which activity or approach works well, for what purpose, under what conditions, and leading to what behavioural

changes in the learner (Pittaway & Cope, 2007; Byabashaija & Katono, 2011). Situated within the human capital and resource-based theories, the study investigates the relationship between entrepreneurial activities in entrepreneurial education, approaches to the teaching of EE, and development of entrepreneurial capabilities. Figure 2.2 below represents the conceptual framework of the study.

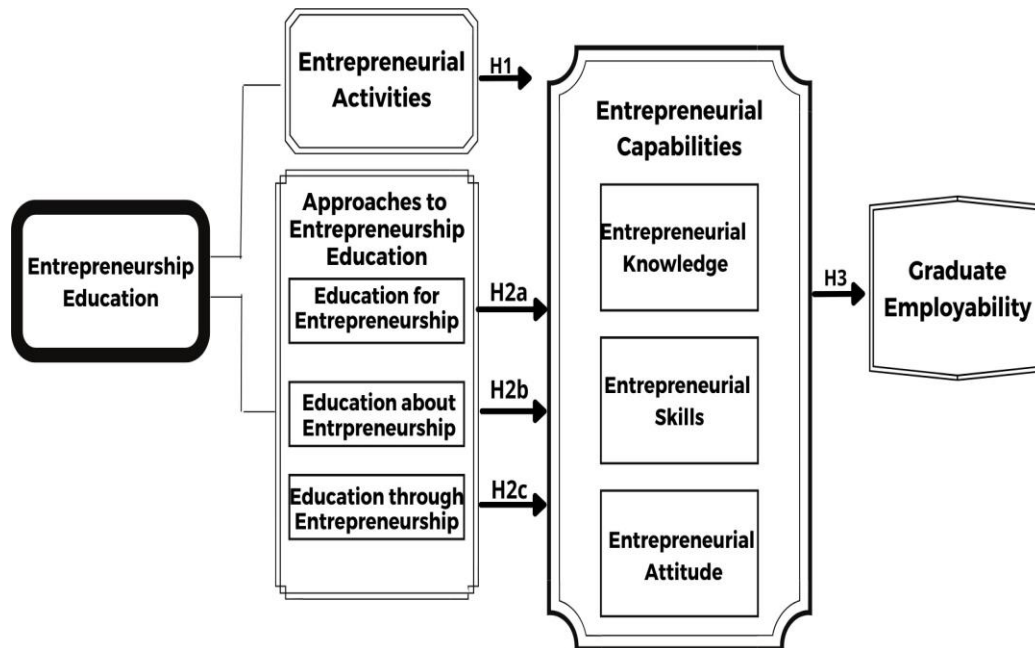


Figure 2.2: Conceptual framework establishing the nexus between entrepreneurship education, entrepreneurial capabilities and graduate employability

Source: Own Compilation

Figure 2.2 establishes the link between entrepreneurship education, entrepreneurial capabilities, and graduate employability. While on the one hand, the advocates of the human capital theory generally argue that investment in education results in the acquisition of relevant knowledge, which is needed by employers; on the other hand, the proponents of the resource-based view are of the opinion that entrepreneurial capabilities, which are a firm's internal resources, are needed by every firm to enhance its competitive advantage (Unger et al., 2011; Dahmann & Hickie, 2012; Kozlinska, 2016; Asiedu, 2019; Martin & Javalgi, 2019). The study therefore argues that entrepreneurship education could be used as a transformative tool in ensuring the development of these entrepreneurial capabilities in students.

2.11 CHAPTER SUMMARY

The chapter was characterised by a review of related concepts, extant theories, and studies on graduate employability, entrepreneurial activities, approaches to entrepreneurship education, and impact studies in EE. The human capital and resource-based theories were considered. The chapter presented a blend of what researchers in entrepreneurship education consider as entrepreneurial capabilities, the general capabilities perceived as needful by employers, and how these capabilities relate to what researchers consider as graduate employability indicators. The current study is one of the very few studies on the effects of entrepreneurship education on employability, that breaks the traditional boundaries of impact studies on EE, by considering and measuring its impacts based on psychological constructs. The subsequent chapter will discuss the research methodology.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter discussed the various theories underpinning the study. This chapter outlines the methodology considered in carrying out the study. The research approach, research design, population, sample and sampling procedures, data collection methods, and data analysis will also be discussed. Issues on reliability, validity, mainly on pretesting of research instruments, as well as ethical considerations considered for the study, form part of the discussion.

3.2 RESEARCH PARADIGM

Research paradigms are considered as philosophical orientations/perspectives, schools of thought or sets of beliefs or thinking that influence the research approach to a study (Creswell, 2013; Kivunja & Kuyini, 2017). The word paradigm, according to Kuyini (2017: 26), “constitutes the abstract beliefs and principles that shape how a researcher sees the world, and he or she interprets and acts within the world”. Creswell (2014: 4) considers a worldview as “a general philosophical orientation about the world and the nature of research that a researcher brings to a study”.

Researchers also argue that the research paradigm and/or worldview comprises four major elements, namely: ontology, axiology, methodology, and epistemology, which form the bases of thought, norms, beliefs, values and/or assumptions of each paradigm (Kivunja & Kuyini, 2017; Matjila & Merwe, 2021). The ontology of a paradigm has to do with the philosophical study of the nature of reality concerning a social issue under investigation, as well as the fundamental categories of relationship between existing phenomena. The axiology of a paradigm has to do with the general ethical issues that need to be addressed when designing a research proposal, which provide the researcher a ground for making the right decisions (Kivunja & Kuyini, 2017; Saunders, Lewis & Thornhill, 2019). The methodology of a paradigm deals with the research design, approaches, methods and procedures adopted for a particular study; meanwhile, the epistemology of a paradigm describes how researchers discover knowledge within their immediate environment (Okesina, 2020).

It has been established by researchers (Skinner, Hester & Malos, 2013; Mertens, 2014; Derera, 2015; Kivunja & Kuyini, 2017; Matjila & Merwe, 2021) that the type of paradigm a researcher adopts for a particular study, is influenced by an individual's epistemological and theoretical positions, as the adoption of a particular research approach is also influenced by the his or her beliefs. Although researchers (e.g., Skinner, Hester & Malos, 2013; Mertens, 2014; Derera, 2015; Kivunja & Kuyini, 2017) argue that research represents the outcome of one's values, beliefs, assumptions, and/or thoughts, it is believed that the nature of the research questions determines the approach most suitable for the study (Hamlin, 2015).

Four main paradigms or worldviews are found in most research literature. These paradigms or worldviews are: positivism or post-positivism, constructivism or interpretivism, transformative or critical, and pragmatism (Rehman & Alharthi, 2016; Kivunja & Kuyini, 2017; Okesina, 2020). The different research paradigms are discussed next.

3.2.1 Positivist Paradigm

The positivists consider the paradigm and/or worldview of research in line with what most researchers accept as the traditional paradigm, scientific method of investigation, or empirical science (Creswell, 2014). Researchers' ability to extend knowledge and understand human behaviour, is based on their experience to experiment, observe and reason critically (Okesina 2020), which offer them the opportunity to explore and interpret situations, and provide measurable and factual answers to questions (Sekaran & Bougie, 2013; Willig, 2013; Derera, 2015; O'Neil & Koekemoer, 2016). Aliyu, Bello, Kasim, and Martin (2014), and Mertens (2014) also argue that a paradigm is situated within the principle and doctrine of ontology, namely, that truth and reality are free and independent of the observer, hence is directed more towards quantitative rather than qualitative design. A paradigm provides researchers with the opportunity to deduct logic, formulate, and test hypotheses, to offer operational definitions, mathematical calculations, and equations, and, amongst other things, to make a conclusion (Creswell, 2013; Saunders et al, 2019). The proponents of the paradigm argue that, for research to

be considered as valid, credible, reliable, certain, accurate, and/or objective, it must be scientific (Okesina, 2020).

The paradigm cannot be applicable in every research situation, especially when the study of human behaviour is involved. Kivunja and Kuyini (2017), therefore, argue that the social world is different from the natural world and cannot be studied in the same manner, since the social world is not value free and neither is it possible to provide an explanation of casual nature. This argument led to the evolution of the post-positivist paradigm, which postulates that reality and truth are imperfect or absolute, but can be probable (Neuman, 2014). A basic distinction between the positivist paradigm and the post-positivist paradigm, is that while the former argues that reality can be studied, understood, and measured from social nature, the latter accepts that it is difficult to fully understand and measure reality, except if it is approximated (Kivunja & Kuyini, 2017; Rehman & Alharthi, 2016).

3.2.2 Constructivist Paradigm

The constructivist paradigm, which is also known as the interpretivist one, seeks to understand and appreciate the subjective nature of human experience (Nieuwenhuis, 2016; Kivunja & Kuyini, 2017). With this paradigm, the researcher seeks to appreciate the rules that underpin individuals' intentions to understand the world in which they live, by contextualising the power of the human mind and life experiences rather than the truth, since realities are socially constructed (Sekaran & Bougie, 2013; Aliyu, Bello, Kasim & Martin, 2014; Creswell, 2014; Dawadi, 2020). The paradigm emphasises the understanding of an individual's viewpoint about the world around them, and is geared towards qualitative research design (Thanh & Thanh, 2015; Nelson, 2020).

In order to ensure that studies in constructivist paradigms are well established and grounded on data collected or generated by the researcher, research should precede theories (Nieuwenhuis, 2016; Baid, 2019). As a result, when adapting this paradigm, data are collected and analysed using an approach which is in line with the grounded theory, and assumes either a naturalist methodology, subjectivist epistemology, relativist ontology, or balanced axiology (Kivunja & Kuyini, 2017). While naturalist methodology

assumes that the researcher acts as a participant, as he or she utilises and gathers data through discourses, interviews, folk group discussions, etc., the balanced axiologist argues that a study's results will automatically reflect the researcher's value. Subjectivist epistemology, on the other hand, assumes that as researchers interact with respondents, they can interpret the data collected through their thoughts and cognitive processes; on the other hand, relativist ontology argues that situations under study have multiple realities, which can be explored and evaluated for decision-making, through the interaction between the researcher and the respondents (Kivunja & Kuyini, 2017).

3.2.3 Transformative Paradigm

The transformative paradigm, which is also known as the critical paradigm, deals primarily with research related to social justice issues, and seeks to address economic, political, cultural, and social-related issues resulting in conflicts, struggle for power, social, economic, and social oppression (Creswell, 2014; Matjila & Merwe, 2021). This paradigm evolved because of dissatisfaction by researchers with the use of the traditional research paradigms, especially positivism and constructivism, who experienced oppression and opposition in their pursuit to provide solutions to societal challenges (Mertens, 2012; 2014).

The assumptions underpinning the paradigm are best understood from multiple philosophical and theoretical perspectives. Kincheloe and McLaren (2005: 92) contend that the theory is concerned in particular with issues of power and justice, and the ways in which: the economy; matters of race, class, and gender; ideologies and discourses; education; religion and other social institutions; and cultural dynamics, interact to construct a social system. Other scientists like Whitaker, Smith, Brasier, Petrakis and Brophy (2021), and Kravia (2016), contributed to the development of the transformative paradigm, by asserting that it serves as a basis for addressing relevant issues of power inequalities, social privilege, and justice.

The paradigm adopts a transactional epistemology (where the researcher ensures effective interaction and rapport with respondents), an ontology of historical realism that

exists as the study relates to oppression, an axiology that overcomes societal heritage or norms, and a methodology which is associated with dialogue (Kivunja & Kuyini, 2017).

3.2.4 Pragmatist Paradigm

The philosophers of this paradigm argue that it is impossible to obtain the truth about the real world by means of the scientific method, as propounded by the positivist philosophers; neither is it possible to determine social reality, as claimed by the interpretivist paradigm, but rather they agitate for the integration of paradigms, which could provide the researcher with the methods necessary to study a phenomenon at a given time (Mertens, 2015; Okesina, 2020). Studies (Mertens, 2015; O'Neil & Koekemoer, 2016; Kelly & Cordeiro, 2020), therefore, argue that the researcher's responsibility in conducting a study, should not be focused on the research methods, but rather on the research problem, as well as possible approaches to provide the necessary conclusions. As a result, the paradigm focuses on practical and/or applied research, especially the mixed methods approach, and emphasises the establishment of a relationship between theory and practice. The paradigm also focuses on pluralistic approaches that would encourage the usage of different worldviews, hypotheses, data gathering, and analysis methods (Sekaran & Bougie, 2013; Willig, 2013; Creswell, 2014; Kaushik & Walsh, 2019).

According to Kivunja and Kuyini (2017: 35), the pragmatist paradigm “advocates a relational epistemology, a non-singular reality ontology, a mixed methods methodology, and a value-laden axiology”. Thus, the pragmatist paradigm recommends the adoption of a mixed methods approach, which is suitable for the current study. The paradigm provides an opportunity for the adoption of the mixed methods approach, which grants researchers the avenue to use both quantitative and qualitative techniques, without compromising the quality of the research, by minimising the associated biases of both techniques (Bishop, 2016; Ganiyu, 2018). The paradigm was, therefore, considered appropriate for the study.

3.3 RESEARCH DESIGN

Bhattacharjee (2012: 44) defined the term ‘research design’ as “a comprehensive plan for data collection in an empirical research project. It is a blueprint for empirical research aimed at answering specific research questions or testing specific hypotheses, and must specify at least three processes: the data collection process, the instrument development process, and the sampling process”. Research design connotes the interactions that exist between the processes of investigation and techniques for data production, backed by relevant theories and procedures (Bryman & Bell, 2007; Skinner, Hester & Malos, 2013; Melnikovas, 2018). Research designs, according to Creswell (2014), are the strategies of enquiry needed to provide specific procedures within quantitative, qualitative, and mixed methods approaches. They are also known as the strategies of enquiry (Denzin & Lincoln, 2011).

Three major research approaches (quantitative, qualitative, mixed methods) have been identified in literature (Skinner, Hester & Malos, 2013; Creswell, 2014; Ugwu, Ekere & Onoh, 2021). Quantitative research is often based on the ontological assumption that measurement of reality or truth, is based on facts, findings, and experiences (Kothari, 2004; Zikmund, Babin, Carr & Griffen, 2013). The approach uses empirical measurements made up of numerical assessment tools and analysis of data to address researchable situations or issues, and is employed, mostly, when the main reason for the research is to explain, predict, and/or describe a given phenomenon (Cooper & Schindler, 2011; Makombe, 2017).

The qualitative approach, on the other hand, is devoid of the usage of quantitative or numerical data, but rather analyses words and actions to derive the meaning of a phenomenon, in order to make a sound judgement (Punch, 2014; Maarouf, 2019). It focuses on identifying underlying motives and new insights, hence providing the researcher with an avenue for flexibility in conducting his or her research (Zikmund et al., 2013; Mensah, 2016). A hybrid of these two designs is the mixed methods design, which both integrates the strengths and overcomes the weaknesses of each of the two designs (Fetters, Curr & Creswell, 2013; Creswell, 2015; Shannon-baker, 2016). As a result, the current study will adopt the mixed methods research design.

3.3.1 Mixed Methods Research Approach

The mixed methods approach is seen as a natural complement to the traditional research approaches (quantitative and qualitative) to study, and might involve philosophical assumptions as well as theoretical frameworks (Hamlin, 2015; Dawadi, Shrestha & Giri, 2021). Almalki (2016), Halcomb and Hickman (2015), and Zikmund et al. (2013) are of the view that an approach which involves the combined use of both quantitative and qualitative research methods in the collection and analysis of data, provides a broader understanding of research problems as compared with either the quantitative or qualitative research methods. The approach also uses multiple data sources and enhances the validity of the data to be collected (Sekaran & Bougie, 2013; Molina-Azorin, 2016; Mitchell, 2018). Aside from the value of triangulation associated with the approach, the generalisability of findings, transferability, and practical relevance of the research are enhanced (Molina-Azorin, 2016; Maarouf, 2019; Okesina, 2020). Malina, Norreklit, and Selto (2015) also believe that the approach is needed to explore the relevant aspects of and relationships between the human and social world.

Apart from the positivity associated with the use of the mixed methods approach in conducting research, it has been found that it is difficult in integrating the quantitative and qualitative methods because of the differences in epistemological and philosophical assumptions (Dawadi, Shrestha & Giri, 2021). The major argument arises, especially, when the findings of one method contradicts the findings obtained through the other, which would eventually make the validity of one method questionable (Almalki, 2016). Others have also questioned the inadequate commonality between researchers' views about mixed methods research. Salehi and Golafshani (2010; 189) argued that the "mixed method(s) approach is to serve the quantitative paradigm while leaving the qualitative methods to (a) secondary or auxiliary status". Salehi and Golafshani (2010) further argued that "others view mixed methods from its technical standpoint, which includes collection, analysis and interpretation of both quantitative and qualitative data in a study, without being encumbered by philosophy or other aspects of the research process ...". Although Almeida (2018), and Bracio and Szarucki (2020) argue that the mixed methods approach requires a greater deal of time and other material resources, the current research

uses it because it allows for integration and corroboration of views from three different cohorts of respondents.

3.3.2 Mixed Method Research Procedure

Researchers (Creswell, 2013; Zikmund et al., 2013; Hamlin, 2015; Mensah, 2016) have identified three major categories of mixed methods design, namely, the explanatory sequential, exploratory sequential, and convergent mixed methods.

3.3.2.1 Explanatory sequential mixed methods approach

This is a research design whereby the researcher begins a study with the collection and analysis of quantitative data, with the aim of obtaining relevant feedback to inform his or her decisions in the collection of qualitative data. By using the explanatory sequential mixed methods, the researcher is positioned to draw inferences about how qualitative information gathered was used to help explain the quantitative results (Zheng, 2015; Othman, Steen & Fleet, 2020). The design is termed “explanatory” and “sequential” because, while the deductive (quantitative) results are used to complement the qualitative results, the collection of quantitative data is followed by the collection of qualitative data, respectively (Hamlin, 2015; Mensah, 2016; Wipulanusat, Panuwatwanich, Stewart & Sunkpho, 2020).

3.3.2.2 Exploratory sequential mixed method

In the exploratory sequential mixed methods design, the researcher begins the data collection process with the collection and analysis of qualitative data, having developed an instrument and/or intervention, while a subsequent or second phase (quantitative phase) of the study follows (Zheng, 2015; Berman, 2017; Shiyanbola, Rao, Bolt; Brown, Zhang & Ward, 2021). That is, the researcher collects and analyses the qualitative results, and uses the findings to inform the quantitative data collection and analysis. Researchers have indicated that the approach assists the researcher in the identification of favourable instruments and measurable variables that could be explored in the quantitative phase (Hamlin, 2015; Mensah, 2016; Mihas, 2019). The core qualitative component is inductive, since the qualitative results are fed into the quantitative component (Hamlin, 2015).

3.3.2.3 Convergent parallel mixed methods

The convergent parallel mixed methods design is a category of the mixed methods research design, where the researcher uses both the qualitative and quantitative methods concurrently, in order to attain a better understanding of the phenomenon under study (Creswell, 2015; Demir & Pismek, 2018). The method, according to Sweeney (2016: 238), “involves the collecting and analysing (of) two independent strands of quantitative and qualitative data in a single phase, merging the results of the two strands and then looking for convergence, divergence, contradictions or relationships between the two datasets”. Zheng (2015) also argues that the method provides the investigator with the opportunity to advance multiple perspectives, and validate the database with others. The convergent parallel mixed methods design also provides the researcher with the opportunity to weigh methods, independently analyse results from components, and interpret as well as integrate the results (Creswell & Pablo Clark, 2011; Demir & Pismek, 2018).

3.3.3 Mixed Method Research Procedure for the Study

The convergent mixed methods approach was employed by the researcher. The purpose was to integrate the data obtained through both qualitative and quantitative means, to assist in providing a complete analysis of the research problem (Demir & Pismek, 2018). Data was collected synchronously and leveraged for the interpretation of results. While data from graduates, who were doing their national service with the selected state-owned enterprises, were gathered using questionnaires (quantitative), data from lecturers and human resources managers were gathered through in-depth interviews (qualitative and quantitative). The application of the mixed methods approach was meant for: (1) triangulation (collecting data from different sources using different methods, so that the information gathered could be integrated, to make judgements and decisions on different issues of the study), and (2) complementarity (capitalising on the strengths of one approach to complement the deficiencies of the other). The data collection procedure adopted for the study is illustrated in Figure 4. below.

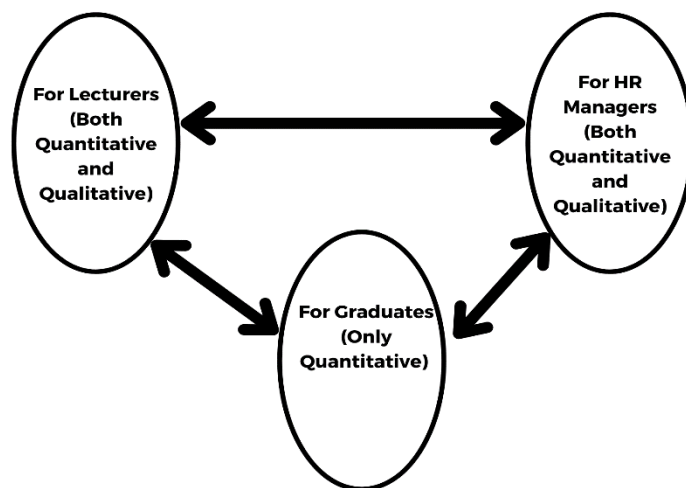


Figure 4.1: Mixed methods research procedure used

Source: Own compilation

Researchers in the field of EE have mixed reports regarding the usage of different research designs. While Babatunde (2016) reported that most studies in top journals had employed quantitative research at the expense of the qualitative approach, Blenker, Trolle Signe, Frederiksen, Korsgaard and Wagner (2014) reported the predominance of qualitative research, but also recommended the use of an integrated approach (mixed methods) so that more insightful conclusions can be reached. This, therefore, calls for consideration of the use of a mixed methods design, in the quest to provide more rigorous research in the study of effect or impact studies in entrepreneurship education. The current research fills this gap by employing a combination of both qualitative and quantitative strategies (mixed methods) with associated analysis, specifically with PLS-SEM; this is in contrast to an over-reliance on descriptive analysis, and the limited usage of mixed methods studies in EE research, as recommended by Blenker et al. (2014), and Kozlinska (2016). Table 3.1 provides a brief summary of the different methodological approaches adopted by some studies on the impact of entrepreneurship education.

Table 3.1: Selected Impact Studies on Entrepreneurship Education

Type of Study	Author and Year of publication
Quantitative	Charney & Libecap (2000); Harhoff, & Weber (2010); Oosterbeek, Van Praag & Ijsselstein (2010); Lange, Marram, Jawahar, Yong & Bygrave (2011); Sanchez (2011); European Union (2012); Fayolle and Gailly (2013), Steenekamp, 2013; Moberg (2014); Newbold (2014); Piperopoulos & Dimov (2014); Rauch & Hulsink (2014); Ben Nasr & Boujeldene (2014); Gielnik, Uy, Funken & Bischoff (2017); Adıgüzel, Z. & Musluhittinoğlu (2020); Rahim & Mukhtar (2021); Othman, Othman, & Juhdi (2022)
Qualitative	Matlay (2008); Mason & Arshed (2013); Gunzel-Jensen & Robinson (2014); Lackeus (2014); Nacuta (2014); Babatunde (2016)
Mixed methods	Lorz (2011), Mwasalwiba (2010), Mwiya (2014), European Union (2015), Kozlinka (2016), Longva (2019)
Systematic and meta-analytical reviews	Dickson, Solomon, & Weaver (2008); Rideout & Gray (2013); Martin, McNally & Kay (2013); Nabi et al (2017); Sousa, Almeida, Mansur-Alves, & Huziwara (2022)

Source: Adapted from Kozlinska (2016)

It can be deduced from Table 3.1 that more studies have been conducted using the quantitative approach than the qualitative or mixed methods approach.

3.4 STUDY SITE/AREA

The study was carried out in three tertiary institutions and some state-owned enterprises (SOEs) in Ghana. Eighteen (18) state-owned enterprises, out of the eighty-four enterprises (84), which were considered by the SOE Annual Aggregate Report (2016) as well governed, were selected for the study. These SOEs selected were from sectors of the economy such as energy, agriculture, communications, manufacturing, housing, finance, transport, as well as water. The enterprises and their various sectors of operation are presented in Table 3.2.

Table 3.2: State-owned enterprises selected for the Study

Name of Organisation	Sector of the Economy
1. Volta River Authority	Energy
2. Ghana Grid Company (GRIDCo)	
3. Electricity Company of Ghana Limited	
4. Bulk Oil Storage and Transportation Company	Oil
5. Tema Oil Refinery (TOR)	
6. Ghana National Petroleum Corporation	
7. Ghana Ports and Harbours Authority	Transportation
8. PSC Tema Ship Yard (PSC)	
9. Ghana Airport Company Limited	
10. Ghana Cocoa Board (COCOBOD)	Agriculture
11. Ghana Water Company Limited (GWCL)	Water
12. GIHOC Distilleries Company Limited	Beverages
13. Graphic Communications Group Ltd	Service
14. TDC Development Company Limited	
15. Precious Minerals Marketing Company (PMMC)	Minerals
16. Volta Aluminium Company Limited	Manufacturing
17. Ghana Reinsurance Company Limited	Insurance
18. National Investment Bank (NIB)	Banking

Source: Own compilation

In addition, the study selected graduates and teaching staff from Ghanaian universities. Since the University of Cape Coast and the University of Ghana are considered as pioneers in the introduction and teaching of entrepreneurship in Ghana (Bawuah, Buame & Hinson, 2006), they were selected for the study. The selection of the Cape Coast Technical University, which was formerly the Cape Coast Polytechnic, was because of its traditional mandate of teaching vocational and technical programmes, and its accessibility to the researcher.

Human resources managers were included in the study because of their working relationship with people from the national service, and are in a better position to provide adequate information about the employability of these individuals (service persons).

The review of literature on the study site also depicts that most of the studies on the effect of entrepreneurship education, were conducted in developed countries (Graevenitz, Harhoff & Weber, 2009; European Union, 2012; Moberg, 2014; Rahim, Abidin & Rosly, 2016; Longva, 2019), with very few concentrating on developing economies or countries in Africa in particular (Olomi & Sinyamule, 2009; Babatunde, 2016). For instance, a study by Graevenitz et al. (2009) on the effects of entrepreneurship education, was conducted at the Department of Business Administration in the Munich School of Management Ludwig-Maximilians-Universitat (LMU), Germany. Moberg's (2014) study was carried out on a cohort of 2,000 Danish ninth-graders, while Rahim et al.'s (2016) study on the impact or effectiveness of entrepreneurship education on graduate employability, concentrated on two hundred (200) students from the Universiti Teknologi MARA, Malaysia. Notable among studies on Africa are Babatunde (2016), Mwasalwiba (2010), and Olomi and Sinyamule (2009), with Babatunde (2016) adopting a case study to compare the impact of entrepreneurship education on developing entrepreneurial graduates of some selected universities in Nigeria and Britain. Mwasalwiba (2010) took stock of 108 publications and assessed the alignment in relation to objectives, teaching methods, target audience, as well as to impact indicators. Olomi and Sinyamule (2009) examined the entrepreneurial inclinations of 508 trainees selected from 12 vocational training centres in central Tanzania. In addressing these issues, the current study contributes to filling the gap on the dearth of studies on developing countries, by concentrating on Ghana.

3.5 RESEARCH POPULATION

Umar and Usman (2015: 50) defined population as “a theoretically specified aggregation of survey elements”. Rahi (2017: 3) also defined population “as all people or items one wishes to understand”. The focus of this study was to explore the impact of entrepreneurship education on graduate employability in Ghana. The target population for this study consisted of three groups of respondents, namely:

1. All graduates deployed to do national service at the eighteen selected state-owned enterprises, from September 2018 to August 2019, as per Table 3.3;
2. All Human Resources managers from the eighteen selected state-owned enterprises; and

3. All academics teaching entrepreneurship at the three selected universities in Ghana.

Table 3.3: Target Population of selected state-owned enterprises

Organisation	Number of NSS Persons Posted during 2018/2019 Service Year
1. Volta River Authority	372
2. Ghana Grid Company (GRIDCo)	144
3. Electricity Company of Ghana Limited	621
4. Bulk Oil Storage and Transportation Company	124
5. Tema Oil Refinery (TOR)	42
6. Ghana National Petroleum Corporation	177
7. Ghana Ports and Harbours Authority	533
8. PSC Tema Ship Yard (PSC)	3
9. Ghana Airport Company Limited	231
10. Ghana Cocoa Board (COCOBOD)	745
11. Ghana Water Company Limited (GWCL)	201
12. GIHOC Distilleries Company Limited	8
13. Graphic Communications Group Ltd	72
14. TDC Development Company Limited	1
15. Precious Minerals Marketing Company (PMMC)	9
16. Volta Aluminium Company Limited	10
17. Ghana Reinsurance Company Limited	4
18. National Investment Bank (NIB)	191
Total	3,488

Source: NSS (2018)

According to the NSS (2018), there were eighty-five thousand, seven hundred and eight (85,708) graduates deployed to do national service from September 2018 to August 2019. From that number, 3,488 were deployed to the eighteen selected enterprises, as indicated in Table 3.3 (NSS, 2018). There were eighteen (18) HR managers from the eighteen state-owned enterprises (SOE Annual Aggregate Report, 2016). According to the selected university database, there were seventeen (17) academics teaching entrepreneurship courses, divided as follows: six from the University of Ghana (DME -

UG, 2018), six from the University of Cape Coast (CESED – UCC, 2018), and six academics from the Cape Coast Technical University (DLS – CCTU, 2018).

Therefore, the target population for the study comprised of:

1. Three thousand, four hundred and eighty-eight (3,488) graduates deployed to do national service, from September 2018 to August 2019;
2. Eighteen (18) HR managers from the selected state-owned enterprises; and
3. Seventeen (17) academics from tertiary institutions, specifically the University of Ghana (UG) in Greater Accra, and the University of Cape Coast (UCC) and the Cape Coast Technical University (CCTU) in the Central Region, where entrepreneurship education is offered.

In all, a population of three thousand, five hundred and twenty-three (3,523) was targeted for the study. The target population for the study is presented in Table 3.4 below.

Table 3.4: Target Population of the Study

Target Population	Population Size
Graduates deployed to do national service at the 18 selected state-owned enterprises from September 2018 to August 2019	3,488
Human Resources Managers from the 18 selected state-owned enterprises	18
Academics from the Department of Marketing and Entrepreneurship, University of Ghana (UG)	6
Academics from the Centre for Entrepreneurship and Small Enterprise Development, University of Cape Coast (UCC)	5
Academics from the Department of Liberal Studies, Cape Coast Technical University (CCTU)	6
Total	3,523

Source: Own compilation

3.6 ACCESSIBLE POPULATION

The accessible population represents the final group of respondents from which data is collected (Asiamah et al., 2017). For this study, twelve out of the eighteen selected state-owned enterprises were accessible for data collection. The twelve state-owned enterprises represented different sectors of the economy. Six human resources managers did not partake in the study. This, therefore, affected the population of graduates and human resources managers. The accessible population in terms of the academics remained the same.

Therefore, the accessible population, as indicated in Table 3.5, comprised of:

1. One thousand seven hundred and forty-nine (1,749) graduates deployed to do national service from September 2018 to August 2019, at the twelve accessible state-owned enterprises;
2. Twelve (12) human managers from the twelve accessible state-owned enterprises; and
3. Seventeen (17) academics from the three selected tertiary institutions.

Table 3.5: Accessible Population

Target Population	Population Size
Graduates	1,749
1. Volta River Authority	372
2. Ghana Grid Company (GRIDCo)	144
3. Tema Oil Refinery (TOR)	42
4. Ghana National Petroleum Corporation	177
5. Ghana Ports and Harbours Authority	533
6. PSC Tema Ship Yard (PSC)	3
7. Ghana Water Company Limited (GWCL)	201
8. Graphic Communications Group Ltd	72
9. TDC Development Company Limited	1
10. Precious Minerals Marketing Company (PMMC)	9
11. Ghana Reinsurance Company Limited	4
12. National Investment Bank (NIB)	191
Human Resource Managers from the 12 accessible state-owned Enterprises	12
Academics	17
Academics from the Department of Marketing and Entrepreneurship, University of Ghana (UG)	6
Academics from the Centre for Entrepreneurship and Small Enterprise Development, University of Cape Coast (UCC)	5
Academics from the Department of Liberal Studies, Cape Coast Technical University (CCTU)	6
Total	1,778

Source: Own compilation

Therefore, this study utilised an accessible population size of 1,778, comprising 1749 graduates, 12 human resources managers from twelve state-owned enterprises, as well as 17 entrepreneurship lecturers (Table 3.5).

Research (Oosterbeek et al., 2010; Rauch & Hulsink, 2014; Piperopoulos & Dimov, 2015; Nabi et al., 2017) indicates that most studies on the effects or impacts of EE, have been devoted to the use of subjective measurements, particularly intentions,

entrepreneurial self-efficacy, as well as competencies, and often rely on students as the respondents or control group (Kozlinska, 2016). For instance, a study conducted by Oosterbeek et al. (2010) sought to measure the effects of EE on entrepreneurial intentions and skills (subjective measurement strategy), among two hundred and fifty (250) students of the AVANS Hoge School, Netherlands. Similarly, in their study Rauch and Hulsink (2014) compared the attitudes, intentions, perceived behavioural control, and behaviours related to new venture creation of one hundred and fifty-three (153), one hundred and forty-two (142), and seventy-four (74) students at the Rotterdam School of Management, Erasmus University, during the pre-test, post-test, and follow-up phases, respectively.

In contrast to the above studies and others conducted by researchers, the current study also employs the subjective measurement strategy, just like that of Babatunde (2016), but gathers information not only from students (graduates). The study, in addition to information from graduates, also gathered the perspectives of lecturers and human resources managers. While graduates represent direct benefactors of EE programmes, lecturers implement their curriculum, and can hence testify whether the content and goals have been imparted on the students; in the same way, human resource managers can attest to whether graduates possess such qualities.

3.7 SAMPLE SIZE

Sample is considered as a proportion of a population, which is selected for the purpose of obtaining information that is necessary to aid decision-making (Leavy, 2017). It involves the representation of part of a population (Pandey & Pandey, 2015). Singh and Micah (2014) and Johnston, Lakzadeh et al. (2019) suggest that a sample size should be determined either by direct calculation, using statistical formulas appropriate to the nature of the study, or by reference to tables, which set out recommended sample sizes for given populations. The study adopted Krejcie and Morgan's (1970) table for determining sample size, in order to guide the sampling of graduates. In line with Krejcie and Morgan's (1970) formula, a population size of between 1,700 and 1,800 would require a sample size of 313. The census approach was used for the academics and human resources managers, with a population of 17 and 12, respectively. Therefore, the total sample size for the study was 342. Table 3.6 illustrates the sample size for the study.

Table 3.6. Sample size for the study

Target Population	Population Size	Sampling Technique	Sample Size
Graduates	1,749	Quota Convenience	313
Human Resource Managers	12	Census	12
Academics	17	Census	17
Total	1,778		342

Source: Own compilation

A major limitation identified in the study of the effects of EE, has to do with the usage of sample size. Studies (Lorz, 2011; Kavita, 2020) have recommended the need to utilize larger a sample size, in order to increase the potential generalizability of EE impact studies. In his study, Lorz (2011) identified a methodological gap in the works conducted by Clouse (1990), Fayolle et al. (2006), and Jones et al. (2008), regarding the usage of a limited sample size, of less than one hundred (100), which assisted in obtaining a positive impact or effect. Kavita (2020) also found a small sample size as a limitation to a study conducted on the impact of EE on the entrepreneurial intentions of students. In an attempt to curb the situation, as suggested by Loz (2011) and Kavita (2020), the current study utilised a sample size of 342, which more accurately represented the total targeted population.

3.8 SAMPLING TECHNIQUES/STRATEGIES

The study employed quota sampling as well as convenience sampling techniques to identify the graduates, and a census approach for the academics and the human resources managers. The subsequent discussion provides a justification for the use of each of the sampling techniques.

3.8.1 Quota Sampling

Quota sampling is a proportionate, stratified sampling technique in which a predetermined proportion of individuals is selected from different strata, but on a convenience basis (Sekaran & Bougie, 2016). Thus, the population is selected non-randomly from strata to represent each of the relevant characteristics in similar proportion, to be representative of the population (Leavy, 2017). The sampling technique saw the identification of relevant characteristics of the population, based on the activities that each state-owned enterprise renders to the state. The sampling from the various state-

owned enterprises was based on the assumption that the sample would be a representation of the target population, as the variability in representation from the various quotas available, is the same as that in the target population (Saunders, Lewis & Thornhill, 2016). The quota sampling technique was adopted for the study because of the large and dispersed nature of the target population across different regions of the country. To obtain a sufficient response to ensure a representation of the population, Krejcie and Morgan's (1970) table for determining sample size, was adopted to guide the selection of an appropriate quota for the study. Table 3.7 below represents how the quota sampling was done.

Table: 3.7 Quota Sampling Table

Organisation	Target Population	Sample Size	Final Sample Size
1. Volta River Authority (VRA)	372	66.57	67
2. Ghana Grid Company (GRIDCo)	144	25.77	26
3. Tema Oil Refinery (TOR)	42	7.51	8
4. Ghana National Petroleum Corporation	177	31.67	32
5. Ghana Ports and Harbours Authority	533	95.38	95
6. PSC Tema Ship Yard (PSC)	3	0.053	0
7. Ghana Water Company Limited (GWCL)	201	35.97	36
8. Graphic Communications Group Ltd	72	12.88	13
9. TDC Development Company Limited	1	0.17	0
10. Precious Minerals Marketing Company (PMMC)	9	1.61	2
11. Ghana Reinsurance Company Limited	4	0.71	0
12. National Investment Bank (NIB)	191	34.18	34
Total	1749	313	313

Source: Own compilation

The quota for the target populations for each enterprise was calculated by dividing the target population by the total target population, and was then multiplied by the proposed sample size, as recommended by Krejcie and Morgan (1970).

$$\text{Quota} = \frac{\text{Target population for each enterprise}}{\text{Total target population}} * \text{Sample size}$$

For instance, the quota sample for Volta River Authority was calculated as:

$$= \frac{372}{1749} * 313 = 66.5728988 \text{ (67)}$$

It must be noted that the various enterprises where the quota was less than one, were considered insignificant and were not involved in the study.

3.8.2 Convenience Sampling

Convenience sampling is a type of non-probability or non-random sampling technique, where members of a target population are sampled because of their availability, willingness to partake in the research, and are geographically accessible (Sekaran & Bougie, 2016; Leavy, 2017). Although the targeted sampling size was achieved, the use of convenience sampling techniques is considered as a subjective representation of the sample, because only cases that were available appeared in the study (Saunders, Lewis, & Thornhill, 2016). However, the selected state-owned enterprises involved in the study organised the respondents prior to the researcher's visit. This provided the researcher with the opportunity to obtain data that were homogenous, and ostensibly purposeful representation of the targeted sample. The sampling technique was useful, since most of the organisations involved in the study had different offices, that were not easily accessible to the researcher. Data were, therefore, gathered from the various headquarters of the state-owned enterprises, specifically in Accra, and from individuals who were available during the data collection period.

3.8.3 Census

The census approach is an attempt to list the collected data from all elements of the population (Kulshreshtha, 2013). The census approach was used to gather relevant data from the human resources managers from the twelve state-owned enterprises, and the seventeen academics teaching entrepreneurship education in the three selected universities.

Aside from methodological issues concerning the usage of sample size, most studies conducted on the effects of entrepreneurship education using a subjective measurement strategy, adopted a single sampling technique. Moberg (2014), and Rahim et al. (2016), for instance, made use of simple random sampling, while others such as Graevenitz et al. (2009) were silent about the sampling strategy used.

3.9 DATA COLLECTION METHODS

Both primary and secondary data collection methods were used by the researcher. These methods are discussed below.

3.9.1 Primary Data

Primary data is considered as original information or items that are collected afresh and for the first time, for the purpose of a study (Mensah, 2016; Faryadi, 2019). The usage of primary data provided the research with the opportunity to control error, and reflect propinquity to the reality or truth (Faryadi, 2019). Two major data collection instruments were employed for the study. A questionnaire was used to gather data from the graduates, and in-depth interviews were utilised to collect data from the human resources managers and academics. These research instruments are discussed below.

3.9.1.1 Questionnaire Survey

A research questionnaire is a data collection instrument, made up of a written set of questions, which the respondents receive and return to the researcher after completion, or when answers are recorded (Zikmund et al., 2013; Sekaran & Bougie, 2013; 2016; Mensah, 2016). Researchers (Neelankavil, 2015; Sekaran & Bougie, 2013; 2016) have argued that the use of questionnaires is an effective and efficient data collection method, especially when the researcher has been able to identify variables of interest related to the study, and the aim is to ensure uniformity, consistency, and objectivity in data collection.

Questionnaires consist of either open-ended or closed-ended questions, or both. Open-ended questions permit the respondent to provide responses to a data collection instrument without a limit to the range of responses expected. Questionnaires with

closed-ended questions are seen as a fixed alternative data collection instrument, that provides the respondent with the opportunity to choose from either one of multiple responses or none (Sekaran & Bougie, 2013; 2016; Mensah, 2016). The use of open-ended questions has a greater propensity for providing more detail than closed-ended ones (Mensah, 2016). However, a questionnaire with closed-ended questions was considered appropriate for the study, as they were quick and easy to answer by study participants, and was likely to positively influence the response rate (Saunders et al., 2016).

Questionnaires can be administered electronically or manually, by either the researcher or assistants. The purpose of adopting both of these means of administering questionnaires, was based on the researcher's desire of ensuring that the response rate was maximised. The electronic means of administering questionnaires is less expensive (Sue & Ritter, 2012; Rice, Winter, Doherty & Milner, 2017). However, some researchers (Sekaran & Bougie, 2013; 2016; Saunders et al., 2016) prefer manual administration of questionnaires, because of the opportunity it affords in establishing rapport with the respondents, clarifying doubts, maximising the rate of return, as well as increasing the anonymity of respondents. It was based on these arguments that the current study resorted to the manual administration of questionnaires.

3.9.1.2 Administration of Questionnaire

The researcher administered the questionnaire personally with the help of two research assistants from the School of Business, University of Cape Coast. These research assistants were selected because they had been trained over the years in data collection, and possessed knowledge in research, with at least a first degree. An orientation was organised for them, where they were briefed on the purpose of the research, guidelines for data distribution and retrieval, as well as management-related issues regarding the data collection exercise. The orientation provided the opportunity to take research assistants through the template of the questionnaire, in order to help them clarify any ambiguities that were likely to crop up during the data collection exercise.

In all, three hundred and forty-four (344) questionnaires were dispatched to the respondents, to obtain a broader perspective on the issue under study. The distribution of this number (344) instead of three hundred and thirteen (313) questionnaires, hence a percentage increase of 10%, was in line with the recommendation by Kumar (2019) as well as Lang et al. (2019), namely that a larger sample size is needed to determine the precision and accuracy of the finding when testing hypotheses. The respondents were provided with ample time (a maximum of five days) to respond to the questionnaire.

3.9.1.3 Questionnaire Design

In line with the research objectives, the instrument (see Appendix B) for the data collection was designed by the researcher. Some major issues considered during the design of the instrument, were the wording of the questions, language, ethical, religious and gender-sensitive issues, variable categorization, scaling and coding, as well as the general appearance of the instruments. Following the argument by Saunders et al. (2016), that there is the need by the researcher to ensure precision in the data collection process, in order to obtain relevant sets of information, the questionnaires were designed based on the literature review. In all, the instrument for graduates was divided into five sections, in line with the research questions and the hypotheses as follows:

Section A: This section sought out the background information of the respondents, including demographic information, programme of study, year of graduation, university or institution attended, participation in an entrepreneurship course, duration of the entrepreneurship course, and other.

Section B: This section gathered information on the relevance of the entrepreneurial capabilities that graduates possess, and measured the extent to which such capabilities enhance their chances of employment.

Section C: This section dealt with the relevance of entrepreneurial capabilities in relation to organisations' competitive advantage, survival and sustainability, successful performance outcomes in business growth, employee performance, and one's ability to mobilise and utilise resources.

Section D: This section focused on the development activities (avenues) linked to and that enhance employability capabilities in entrepreneurship education, and how these avenues influence graduates' employability.

Section E: This section covered issues related to the approaches to entrepreneurship education, and their effects on the development of graduates' employability.

The development of the items in sections B, C, D, and E was based on previous relevant literature. The items in section B of the questionnaire were developed on the basis of researchers' opinions, such as Oliver et al. (2011), Fulgene (2015), Lackeus (2015), and the European Union (2017). Items in section C were also developed in line with recommendations by Sarwoko (2013), Lazar and Paul (2015), as well as by Mahadalle and Kaplan (2017). Section D was constructed on the recommendation of researchers, such as Bridgstock (2009), Cranmer (2006), as well as Frye et al. (2009). Finally, items in section E were derived from the works of Moberg (2014), Piperopoulos and Dimov (2014), as well as Kozlinska (2016).

3.9.1.4 In-depth Interviews

In-depth interviews were conducted to obtain the views of lecturers (facilitators of knowledge) and human resources managers (experts who hire the products of entrepreneurship education). Interviews are an interchange of opinions or perspectives between two persons or group of persons, conversing about a theme of mutual interest, with a view to discovering fundamental truths, beliefs, motivations, as well as attitudes about an important social issue or issues (Kvale & Brinkmann, 2009; Malhotra, 2010; Frost, 2011; Tracy, 2013; Derera, 2015). The above definition connotes that two main forms of interviews exist, namely the formal interview, which represents directed, planned, or structured interpersonal communication, and the informal interview, which is considered as an unstructured but research-relevant conversation that takes place between a researcher and a participant(s).

The interview guide developed for the study had both open-ended and close-ended questions. While the open-ended questions were meant to gather qualitative data, the

close-ended ones were meant to gather quantitative data (Appendices C1 & C2). The use of an interview provided the researcher with the opportunity to look deeper into the phenomenon under study, while taking into consideration the environmental and contextual factors (Babatunde, 2016).

3.9.1.5 Administration and Structure of In-depth Interviews

The researcher conducted an in-depth interview with academics (lecturers) who work in three public universities in Ghana, and human resources managers from selected state-owned enterprises. These individuals were selected for the study depending on their availability during the period of the interview (between August and December 2019) and in line with its purpose. All participants who were available during the interview period were considered for the study, unless the respondent decided to opt out due to personal reasons. All the respondents were given ample time to respond to the section with closed-ended questions (quantitative), while the researcher followed up with the collection of the qualitative data at a convenient time for the participants. The interview ran for an average duration of about forty-five minutes. The interactions were recorded and later transcribed, while notes were taken to supplement the recorded conversation.

Appropriate themes were generated from the literature reviewed to serve as the interview guide. This strategy provided a springboard for the researcher in selecting interesting themes to explore. The researcher also took into consideration the need to explore new themes, test emerging hypotheses, and explore interviewees' feelings and opinions, without compromising the factual data. These approaches were in line with recommendations by Tracy (2013). The design of the interview guide also took into consideration wording, language, ethical, religious and gender-sensitive issues, variable categorization, scaling, and coding.

The interview guide was divided into five sections, in line with the research questions and the hypotheses, as follows:

Section A: This section presented the general background information of the respondents (academics and human resources managers). The background for academics covered

respondents' demographic information, highest qualification and area(s) of specialisation, name of educational institution where they work, level(s) at which they teach entrepreneurship, and name of the entrepreneurship course and/or programme. The section also gathered information on the duration of teaching entrepreneurship. The background information of the human resources manager was related to the respondent's demography, name of the organisation where the respondent works, his or her position in the organisation, and number of years there. Other information in this section captured the respondents' highest level of education. It must be noted that the subsequent sections of the interview guide, were developed in line with the research objectives, and are the same for both sets of respondents (academics and human resource managers).

Section B: This section gathered information on the relevant entrepreneurial capabilities that graduates acquire from participating in entrepreneurship education, and measured the extent to which such capabilities enhance their employability.

Section C: This section focused on the relevance of entrepreneurial capabilities in relation to an organisation's competitive advantage, survival and sustainability, successful performance outcomes in business growth, employee performance, and employee's ability to mobilise and utilise resources.

Section D: This section sought out information on the entrepreneurial activities in entrepreneurship education, that enhance the development of entrepreneurial capabilities in graduates, and how these activities influence their employability within the Ghanaian context.

Section E: This section of the interview guide comprised questions on approaches to entrepreneurship education used in Ghanaian universities, and the effects of these on the development of graduates' employability.

3.9.2 Secondary Data

Secondary data are information that has been previously collected and used by other sources (Bhattacharjee, 2012; Mensah, 2016). These data include both raw data and

published summaries, mostly found in books, journal articles, newspapers, and other relevant sources (Mensah, 2016; Saunders, Lewis, & Thornhill, 2016). The secondary data utilised for this study were derived from journal articles, unpublished theses, textbooks, and policy documents.

3.9.3.1 Data Collection for the Study

Literature (Gray, 2013; Rauch & Hulsink, 2014; Linan & Fayolle, 2015; Kalyoncuoğlu, Aydintan & Göksel, 2017; Adelaja & Minai, 2018) reveals that most studies on the effect and/or impact of entrepreneurship education, adopt the traditional pre-/post-test control group strategy in gathering relevant data. In contrast, Lepoutre, Berghe, Tilleuil and Crijns (2010) recommended the use of a retrospective pre-/post-test design, to assess the pre-/post-test effect of entrepreneurship education on students at a particular moment, contrary to the traditional pre-/post-test design. However, the current study did not follow the traditional pre-/post-test, where respondents are mostly students who have completed a course in entrepreneurship. Rather, the study adopted a post-test multiple group design to gather data from graduates, lecturers, and human resource managers. The purpose of this was to ensure that relevant data gathered from each of the respondent groups, was validated by another group, since most impact/effect studies, especially those involving the use of pre-post-test design, are characterised by response self-bias (Lepoutre et al., 2010; Carpenter & Wilson, 2021).

Despite Kozlinka's (2016) argument that the use of only the post-test strategy reduces the accuracy of the effects or impacts to be measured, the current study is interested in what students develop or acquire from their investment in entrepreneurship education, and not what they already know. Thus, they have pre or prior knowledge in entrepreneurship (either acquired or inherent), which can be developed and enhanced through their participation and investment in education, specifically through EE.

3.10 MEASUREMENT OF VARIABLES

The convergent mixed methods nature of the study (integrating both quantitative and qualitative data), provided an avenue for abductive reasoning – a process whereby both deductive and inductive approaches are valued. Since the researcher did not intend to

depend solely on an existing theoretical position, the constructs for the current study were not measured only from the perspective of constructs on the research objectives that have previously been tested or studied, but also from empirical literature reviewed.

The effects of entrepreneurship education were measured in terms of students' changes in interest, attitudes, confidence, perceptions, abilities, skills, self-efficacy, as well as in enhancement in entrepreneurial spirit within a target group, as suggested by Lüthje and Franke (2003), Fayolle and Gailly (2008), Mwasalwiba (2010), and Kozlinska (2016).

As a result of the fact that the term graduate employability remains a complex and problematic one, without much clarity or complete direction (Rae, 2007), it was measured in terms of graduates possessing the required soft and hard skills that are most needed by employers.

In this study, the construct of entrepreneurial capabilities was measured according to the recommendations of the European Union (2017), Lackeus (2015), and Oliver et al., (2011). There was due consideration given to increased sustainable competitive advantage (Lazar & Paul, 2015), business growth (Sarwoko, 2013; Mohamad & Sidek, 2013; Mahadalle & Kaplan, 2017), and an entrepreneur's success (Ona, 2006) that it fosters.

Following the arguments by some researchers (e.g., Shukran et al., 2004; Precision, 2007; Rahman et al., 2012; Fulgence, 2015), the approach by educational institutions to develop products (graduates) with entrepreneurial capabilities, that promote personal and economic development and enhance employability, is often considered as skills development activities, initiatives, or avenues. As a result, the current study measured entrepreneurial activities in line with students' involvement and participation in extracurricular activities, business plan competitions, volunteerism, workshops and conferences, career guidance and talks, professional clubs, and practical trainings and internships.

The review of related literature on the approaches to entrepreneurship education, revealed that three major approaches exist, namely: education for entrepreneurship (Lackéus, 2013; Moberg, 2014), education about entrepreneurship (Mwasalwiba, 2010), and education through entrepreneurship (Lundqvist & Williams Middleton, 2013). The influence of these approaches on the development of entrepreneurial competencies, was measured in terms of the contribution of their various aims, contents, and teaching methods. The influence of the aim or the purpose of these approaches on the development of entrepreneurial competencies, was measured in line with suggestions by researchers, such as by Hannon (2005), Mathieu (2006), Jones and Iredale (2010), Blenker et al. (2011), Lackéus (2013) and Moberg, (2014), and Piperopoulos and Dimov (2014). Meanwhile, the influence of the approaches' teaching methods on the development of entrepreneurial competencies, were measured in line with recommendations by Fayolle and Gailly (2008), Arasti et al., (2012), Mkala and Wanjau (2013), Fatoki (2014), Moses et al., (2015), Kozlinska (2016). Finally, the influence of the approaches' various content was measured in relation to the opinions of researchers such as Backstrom-Widjeskog (2010), Marope et al., (2017), Olokundun (2017), and Sirelkhatim and Ganji (2015).

3.11 DATA ANALYSIS

Multiple data analysis strategies were employed for the study, as a result of the mixed research methods approach adopted, which, according to researchers (Creswell, 2014; Mensah, 2016; Saunders et al., 2016), permit the use of two or more alternative approaches for data analysis as well as interpretation.

3.11.1 Quantitative Data Analysis

Data collected from the questionnaire were analysed quantitatively, using descriptive and inferential statistics. The data collected were checked, edited, coded, and assembled to remove errors, in order to enhance data quality, as recommended by Sekaran and Bougie (2016). The preparation of the data was done by the researcher with the help of two research assistants, and was then followed by data analysis, using computer software such as Statistical Product and Service Solutions (SPSS 23.0 version), and Partial Least Square to Structural Equation Modelling (PLS-SEM). The quantitative analysis involved the use of mean and standard deviations. Descriptive statistics were used to analyse

demographic profiles through percentages, tables, charts, and frequencies. The inferential statistical technique used was structural equation modelling.

In line with recommendation by researchers (Louangrath, 2017; Shaikh, Dars, Memon & Kazi, 2020) that a sample size of less than 30 decreases the statistical reliability of survey research findings, the sample size of less than 30 obtained for the academics and human resource managers was considered inadequate for quantitative analysis. As a result, the quantitative responses obtained from academics and human resource managers were analysed qualitatively and not statistically as recommended by (Sarja, 2020).

3.11.1.1 Partial Least Square Structural Equation Modelling (PLS-SEM)

Partial Least Square to Structural Equation Modelling (PLS-SEM) has been described as a multivariate and second-generation statistical technique, which enables the analysis of the direct and indirect relations that exist between several independent and dependent latent variables (Alnakhli, 2019). Its usage assists in the analyses of several multivariate statistics, such as factor analysis, regression analysis, canonical analysis, path analysis, growth curve modelling, and is considered as one of the most useful and influential statistical development tools in the social sciences (Hair, 2012).

PLS-SEM was used for the study because of its level of credibility in evaluating interrelationships between latent variables (Wong, 2019). According to Hair, Jr. et al. (2014) and Jihye (2015), SEM permits simultaneous estimation of several connections between variables, and accounts for direct and indirect effects of measurement errors in more than one endogenous and exogenous variable, especially when they are analysed concurrently. SEM is comparatively more reliable in the measurement of error, in addition to observed variables, than other first-generation analytical models, like regression (Schoemann et al., 2017). This is because SEM considers the measurement error in addition to the observed variables (Schoemann et al., 2017). In line with the recommendations from Kvalheim et al. (2019) and Jeon (2015) regarding the advantage of using SEM compared to other models, the PLS-SEM was used for this study.

There are two major multi-stage analytical processes involved in SEM, namely: measurement (outer) model analysis and structural path analysis. The measurement or outer model is meant to evaluate the indicator variable(s) in relation to the latent variable(s). In line with Hair et al.'s (2017) recommendation, average variance extracted (AVE) was used to check the convergent discriminant validity and convergent validity of measures that were associated with individual constructs, with the measurement model fitness being determined through factor loading and goodness of fit (R^2), while composite reliability was used to check for internal consistency. The structural model, which defines the nexus between the various latent variables, was used to evaluate the path coefficients, effect size (f^2), as well as the significance levels (P-values).

3.11.2 Qualitative Data Analysis

The analysis of the interviews involved transcribing the narrations from participants, data findings, describing data to derive meaning, and interpreting of raw data in comparison to existing literature. The interviews were analysed with NVivo 12 Pro. The collected data were edited, coded, filed, and errors were checked. Field editing and in-house editing were done to check for technical omissions, and ensure consistency, credibility, and completeness of data, before coding was done, to assign a numerical score to the edited data. This involved the provision of meaningful clarification, explanation, as well as interpretation of data obtained from the field. The data filing process involved the electronic storage of the transcribed data, with the help of the NVivo software.

The data preparation started with a verbatim transcription of information obtained from participants during the interview, and was exported to a Microsoft Excel sheet. During the data preparation stage, valuable statements or phrases were pre-coded by highlighting them with different colours, to aid in future reference. Member checking was done after each session of data transcription, to confirm and validate the accuracy of the data. The strategy was to enable respondents to confirm or make inputs in the transcribed document, and incorporating their responses in the analysis. This strategy was in accordance with the suggestion by Birt et al. (2016).

Coding started during the data collection and formatting stage. Saldana (2016) defines coding as the transitional process between data collection and extensive data analysis. The coding strategy consisted of first- and second-cycle coding. Nvivo coding and descriptive coding were the first-cycle strategies used for the study, while the second-cycle one consisted of pattern coding. The Nvivo coding strategy was used to capture statements from the respondents, and to provide a better understanding of the descriptions obtained (Miles et al., 2013). However, to situate participants' responses in line with the research objectives, and to represent their impressions, descriptive coding was employed where necessary (Theron, 2015).

The transcribed data were then coded into NVivo 12 Pro for analysis. The adoption of the NVivo software aided in easy identification of themes, and the organisation and analysis of cases. This software was also used to provide a better understanding of and access to the data, and make room for better analysis, explanation, mapping, and visualisation of the transcribed data. Pattern coding was adopted to permit categorization of the data, and to develop themes in relation to the research objectives. Predefined patterns derived from the literature, in accordance with the research questions, were used. The initial coding saw the generation of different codes, which were sorted into different themes in line with the research objectives. These codes were examined and reviewed on different occasions, to ensure that they were relevant and related to the themes or research objectives. The final coding process saw the comparison of the themes to the actual data sets, to determine their applicability in relation to the original transcripts.

3.11.2.1 Thematic Analysis

Thematic analysis is the process of analysing qualitative data through careful probing of data sets, to identify, search, and report relevant, repeated patterns (Kiger & Varpio, 2020; Peel, 2020). This process provides an opportunity to simultaneously organise and simplify complex data into manageable, meaningful, and understandable codes and categories, as well as into constructive themes (Peel, 2020). The strategy was adopted because it provided an avenue to manage the complexity associated with interview data coding, and its interpretation through the various phases of the thematic analysis process

(Nowell et al., Lochmiller, 2021). The study followed six systematic procedures outlined by Braun and Clarke (2006).

The first step involved repeated listening and transcribing of the audio data. The audio data were transcribed by three individuals (the researcher and two research assistants). The transcripts were later exchanged by the researchers for proofreading, to confirm and rectify potential subjectivity and biases on their part during transcription. The researcher then compared the transcripts to identify common grounds, and to familiarise himself with the data set through the active reading of the transcribed data. The transcribed data were then exported to NVivo 12 Pro to aid in the easy organisation of the data.

The second and third phases of the thematic analysis process, saw the generation of initial codes from the transcribed data, as well as the generation of themes, respectively. In the second phase, codes were well defined in line with the recommendation by Nowell et al. (2017), namely, to avoid the generation of overlapping codes. Notwithstanding this, overlapping codes emerged and were integrated in the subsequent step. The coding was done inductively in accordance with the issues raised by respondents under each thematic area. The third phase, on the other hand, witnessed cross-examination, analysis, comparison, as well as collation of codes, to generate potential and independent themes. Relevant codes were sorted and collated, to form the themes (Nowell et al., 2017). A deductive approach to theme identification (Braun & Clarke, 2012) was employed in line with the research objectives. However, relevant emerging themes from the examination, as well as the collation of codes, were identified and formed part of the discussions (Vario et al., 2017).

Steps four and five were devoted to reviewing, defining, and naming the relevant themes. In the fourth stage, each proposed theme was defined briefly and described adequately. The researcher then identified and organised relevant aspects of each theme, the data under the theme(s), the aspect of the data the theme addressed, and then compared and contrasted themes to ensure that they were grounded in the data set. During the fourth step, codes that were wrongfully captured under some themes, were recoded under the correct ones. Again, themes were validated in the entire data set, and additional codes

that were previously omitted, were generated and coded accordingly. In step five, the relevance of each theme was verified and organised coherently. A coherent narrative of how and why data were coded under various themes, provided a unique contribution and insights about the understanding of the research questions. Also, the interactive patterns of themes were established by the researcher on the basis of the data set. Possible areas of overlap within the themes, identifiable sub-themes, and scope of each theme were deleted, where necessary.

The last step in thematic analysis began with note-taking, theme description and selection, and a presentation of extracts from the data set in the previous steps. The final stage involved a detailed analysis, description, and interpretation of the findings. The study used both narrations and representations of data extracts (direct quotations from respondents), to relate the answers to the research questions offered by participants. Direct quotations were used to provide an adequate contextual and textual description of participants' arguments, in support of the themes generated.

Thematic analysis was employed for the current study, to provide a better understanding of the experiences, behaviours, as well as the thoughts of human resources managers and academics, about the effects of entrepreneurship education on graduate employability (Kiger & Varpio, 2020; Xu & Zammit, 2020).

Table 3.8 summaries the way that the various research objectives were analysed, the data source, as well as the analytical statistic adopted.

Table 3.8: Research objectives, data sources, and method of analysis

Research Objective	Data Collection Instruments	Processor	Analytical Statistic/Tool
1. To determine the entrepreneurial capabilities gained by graduates through entrepreneurship education	Questionnaire	SPSS v.22 NVivo 12 Pro	Mean and Standard Deviation Text Search Query
2. To analyse the relevance of entrepreneurial capabilities to organisations	Questionnaire In-depth Interviews	SPSS v.22 NVivo 12 Pro	Mean and Standard Deviation Mind map
3. To investigate entrepreneurial activities experienced by graduates in entrepreneurship education	Questionnaire In-depth Interviews	SPSS v.22 NVivo 12 Pro	Mean and Standard Deviation Project and Mind Maps
4. To determine the approaches employed in teaching entrepreneurship education	Questionnaire In-depth Interviews	SPSS v.22 NVivo 12 Pro	Mean and Standard Deviation Project Map
5. To examine the effect of entrepreneurial activities on the development of the entrepreneurial capabilities of graduates	Questionnaire In-depth Interviews	Partial Least Square Software NVivo 12 Pro	Partial Least Square-Structural Equation Modelling (PLS-SEM) Mind Maps
6. To assess the effect of the approaches to teaching entrepreneurship on the entrepreneurial capabilities of graduates	Questionnaire In-depth Interviews	Partial Least Square Software NVivo 12 Pro	Partial Least Square-Structural Equation Modelling (PLS-SEM) Mind Maps
7. To assess the effect of entrepreneurial capabilities on graduate employability	Questionnaire In-depth Interviews	Partial Least Square Software NVivo 12 Pro	Partial Least Square-Structural Equation Modelling (PLS-SEM) Mind Maps

Source: Own compilation

3.12 RELIABILITY AND VALIDITY

This section discusses the concepts of reliability and validity, in order to certify and ensure the attainment of the empirical research study's quality.

3.12.1 Reliability

Reliability, according to researchers (Creswell, 2014; Saunders et. al., 2016; Sürücü & Maslakci, 2018; Kavita, 2020), has to do with the replicability, dependability, and consistency of results obtained from a study, or the extent to which a measuring instrument and/or procedure for analysis yields consistent results or findings. Reliability can be viewed in two major ways: (1) either from the proportion of variance, as explained by the true score of a latent variable – hence the lesser the errors contained in the data,

the more reliable the result or instrument is; and, (2) or from the reproducibility of the results – that is, on the basis that a construct under study does not change between tests, hence a perfectly reliable instrument might produce the same score at different periods. It is relevant to state that reliability in this sense is not merely measured on the basis of obtaining a similar result, especially in quantitative research, since it is often straightforward and data are numerical in nature; rather, it is based on the dependability and consistency of the data, which can be attained either through the researcher’s position, audit trial, or triangulation (Zohrabi, 2013; Moon & Wolf, 2020).

The Cronbach Alpha coefficient, which measures internal consistency, was used to ascertain the reliability of the data collection instrument, specifically the questionnaire. As indicated by Robinson et al. (1991), the quality of the scales can be measured by the following standards: exemplary reliability ranges between 0.80–1.00; 0.70–0.79 for extensive reliability; 0.60–0.69 for moderate reliability; while 0.60 signifies minimal reliability. Although other scholars, such as Nunnally (1978) and Pallant (2005), have indicated that a Cronbach Alpha coefficient of 0.60 and 0.70 or more, respectively, is considered to be reliable, a benchmark of >0.70, as recommended by Field (2002), UCLA (2009), and Pallant (2016) was considered for this study. However, in line with the recommendation by Boohene et al. (2012), and Field (2014), that when measuring the reliability of attitude and conducting a study in a relatively new field, questionnaires may have lower alphas than the standard cut-off point of 0.70, and will still be considered reliable.

3.12.2 Pilot Test Reliability Results

Table 3.9 below represents the reliability test that was obtained from the pilot study.

Table 3.9. Instrument reliability results from pilot study

Study Variable	Number of Items	Cronbach’s alpha
Entrepreneurial capabilities	37	0.969
Relevance of entrepreneurial capabilities	5	0.977
Entrepreneurial activities	10	0.844
Entrepreneurship education	9	0.891

Source: Own compilation

As shown in Table 3.9, the least Cronbach alpha recorded (0.844) was above the benchmark recommendation of >0.70 by Pallant (2016).

In order to assure the reliability and trustworthiness of the qualitative analysis, the verbatim transcription method of member checking was adopted for the study. The strategy was to enable respondents to confirm or make inputs in the transcribed document, and for their responses to be incorporated in the analysis. Member checking promoted reflexivity and reduced elements of bias, since the researcher teaches entrepreneurship programmes in one of the universities involved in the study. This strategy was in accordance with the suggestions made by Birt et al. (2016) and Dodgson (2019).

3.12.3 Validity

Validity deals with the issue of whether research is believable or true, and measures or evaluates exactly the phenomenon intended or purported to be evaluated (Saunders et al., 2009; 2016; Zohrabi, 2013; Kotte & Lind, 2015). It can also be defined “as the absence of systematic measurement error” (Kotte & Lind, 2015: 27). To researchers, such as Owino (2013) and Zohrabi (2013), validity is an important condition for ascertaining the quality, dependability, trustworthiness, utility, and acceptability of research because conclusions rest upon information obtained from research instruments. Creswell (2014) made mention of three traditional forms of validity, namely: content validity, construct validity, and predictive or concurrent validity. Other forms of validity have been identified as measurement validity, external validity, internal validity, and ecological validity (Andrade, 2018). These terminologies are explained below:

Content Validity: This measures the extent to which the instrument provides adequate coverage of the elements, behaviours, and skills involved in a study, or of its objectives (Sekaran & Bougie, 2013; Zohrabi, 2013; Taherdoost, 2016). Saunders et al. (2016) argue that the extent to which the coverage could be considered as adequate, can be attained in two ways. First, by providing a careful definition of the research through the literature review and initial discussion with others, where necessary, and second, by using different experts in the field of study, to assess the quality of the instruments. In line with

recommendations by Zohrabi (2013), Saunders et al. (2016), and Yusoff, (2022), the researcher comprehensively reviewed the literature on the study phenomenon, and compared the findings with similar research conducted in the same area. As views of experts in the field were sought, the pilot study was also done to revise and rework words, in order to clear ambiguity in the instruments.

Construct or Measurement Validity: This connotes the extent to which an instrument exactly measures the constructs intended to be evaluated, and is often applicable in the measurement of social concepts and quantitative research (Bryman & Bell, 2007; Welman, Kruger, & Mitchell, 2007; Saunders et al., 2016). Construct validity is a measurement of validity that deals with multiple indicators, to determine how well these indicators of a construct converge or diverge (Neuman, 2014). In relation to this, Saunders et al. (2016) recommend that when different scales are used to measure the same or a similar construct, the correlation between scales is termed convergent validity, but when or where different scales are used to measure clearly different constructs, the correlation between the scales is distinct, hence it is termed discriminant validity.

To ensure the construct or measurement validity of the current study, instruments were pilot tested to provide room for recommendations and corrections. The pilot testing was conducted at the Takoradi Technical University and selected enterprises (GN Banks, GN Insurance, GN Printing, and Gold Coast Fund Management) of the Groupe Nduom companies. In all, twenty questionnaires were administered and retrieved, while two interviews were conducted. The feedback received from respondents on the instruments was corrected and effected. The decision was in line with recommendations by Maletic (2013), that to ensure the construct validity of an instrument, a pre-test or pilot test investigation should be carried out, to determine if the constructs are measuring exactly what they are intended to. The research employed a mixed methods approach, and utilised multiple respondents to validate the data collected.

Criterion-related Validity: This type of validity deals with the degree to which results obtained by an instrument developed for a study, correlate with established standards of a similar theme (Yasar & Cogenli, 2013; Heyden, 2017). Simply put, criterion validity

ascertains whether the instrument correlates with an external benchmark of the phenomenon being studied (Heyden, 2017). Criterion-related validity is made up of concurrent and predictive validity (Odukoya, Atayero, & Alao, 2015; Mushtaq, 2018), and it is mostly classified based on whether the instrument is meant for a current or future study (Heyden, 2017). Whereas concurrent validity deals with the extent to which a research instrument can predict a research outcome in the present, predictive validity deals with the degree to which the instrument is able to determine a future phenomenon (Mushtaq, 2018). To ensure the criterion-related validity of this study, the current instruments for the study were adapted and compared with other instruments that have been used in other research, especially in the field of entrepreneurship, and entrepreneurship education and/or training. However, most of these instruments were used in developed countries, hence the researcher contextualised them to developing countries, specifically Ghana.

External Validity: This type of validity deals with the applicability or generalisation of research findings beyond a particular research context. In other words, external validity looks at whether a researcher can generalise a result found in a particular setting, with a particular small group externally, to a broader range of settings and/or individuals (Zohrabi, 2013; Neuman, 2014).

Internal Validity: This form of validity implies that internal errors have been controlled; hence the research findings can be considered as credible (Neuman, 2014; Reiss, 2018). Internal validity, according to Zohrabi (2013: 258), is “concerned with the congruence of the research findings with the reality”. Zohrabi (2013) further argues that, internal validity has to do with the extent to which the researcher can observe and measure what is expected to be measured. Zohrabi (2013) propounded six major steps to be followed to ensure internal validity. These steps are triangulation, member checks, long-term observation at the research site, peer examination, participatory or collaborative modes of research, and researcher’s bias. In an attempt to achieve triangulation by means of relying on multiple research or data collection instruments, the researcher employed the use of both in-depth interviews and questionnaires. The purpose was in line with the recommendation by Zohrabi (2013), that the usage of a single data collection instrument

for a study makes the findings questionable and weak, while the use of several instruments provides an opportunity for the researcher to corroborate findings. In response to Merriam's (1998) step of ensuring participatory or collaborative modes of research to promote validity, the study involved three different categories of respondents, namely graduates, human resources managers, and lecturers or academics. The strategy was to ensure that the data collected from each stratum could be validated by another.

Ecological Validity: The ecological validity, according to Neuman (2014), measures the degree to which the social world or phenomenon under study, correlates with the respondents' world. Huntington (2017) and Andrade (2018) also advanced that ecological validity deals with whether or not research instruments cover the respondents' social, political, and economic life activities, cherished values, attitudes, etc. The current study ensured that the data collected from the respondents correlated with their experiences and capabilities, derived from their participation in EE and their utilization of such entrepreneurial capabilities at the workplace; these claims by graduates were then validated with responses from human resources managers.

3.13 PILOT TESTING

Ismail et al. (2017) explain that a pilot test or study is usually a smaller-scale piece of research work, which is mostly organised prior to the final full-scale study. Ismail et.al. (2017) further argue that pilot testing provides the researcher with an avenue to test, in practical terms, the likelihood of a research process, especially with the administration of research instruments, in order to arrive at the best possible means of conducting the final research study. To obtain credible information on the assessment of the validity and reliability of the research questionnaire, and to avoid challenges associated with its administration, Saunders et al. (2016) recommend the need to pilot the research instruments prior to the data collection stage of the research, with respondents who possess the same or similar characteristics to those of the actual respondents.

Prior to the pilot testing of the questionnaire, the researcher took the following steps. First, the research sought the advice of some experts from: the academic staff of the School of Business, University of Cape Coast, Cape Coast, Ghana; his supervisor; and

the panel of the Ethical Clearance Committee from the University of KwaZulu-Natal, South Africa. Second, the researcher incorporated the suggestions and recommendations into the questionnaires, which were designed to gather relevant information from respondents, in order to ensure content validity. Finally, the researcher conducted a trial run of the questionnaire. These steps were taken in line with the recommendation by Saunders et al. (2016), on the need to seek out the suggestions or comments of experts on the suitability and representativeness of a questionnaire, and Bell and Waters' (2014) endorsement of a trial run to determine the probability of the instrument achieving its intended purpose.

One of the factors considered necessary in pilot testing of an instrument, is the availability of resources (e.g., time and money) (Saunders et al., 2016). As a result of time constraints and inadequate resources, the researcher adapted the recommendation by Haire et al. (2007), that the sample size for pilot testing may range between four (4) and thirty (30) individuals. The pilot test for the present study was done on one Human Resources Manager and twenty service persons (graduates) at the Groupe Ndoum Company, as well as on one teaching staff of the Takoradi Technical University, Ghana. Groupe Ndoum and the Takoradi Technical University were considered for the test because of the similarities and commonalities between the respondents working in these institutions. The pilot testing was done between 30th July and 5th August 2019. The data obtained from the pilot testing did not form part of the data set for analysis of this study.

3.14 ETHICAL CONSIDERATION

Ethical considerations play a very crucial role in any credible research work (Cooper & Schindler, 2011; Welman et al., 2007; Zikmund et al., 2013). As a result, the study was designed in such a way that it would not pose any threat to the respondents. All research instruments were devoid of statements that connote ethnic, tribal, or gender-sensitive issues, and might be emotionally harmful to the respondents. The researcher also notified the research participants about the purpose of the study prior to data collection, and sought their permission to participate in it by signing an informed consent form. Copies of the consent forms used for the study have been attached as Appendices D1 and D2.

In conducting in-depth interviews with lecturers and human resources managers, the researcher sought the consent of these respondents to record their views. Interview sessions were conducted in a manner that reduced bias, while upholding the principles of confidentiality and anonymity. Participants were also assured anonymity and confidentiality. The researcher acknowledged any materials used in the study, except for the original contribution that the study achieved. This practice was to ensure that issues of plagiarism are given utmost attention. An ethical clearance certificate (HSSREC/00000011/2019) found in Appendix A1 and A2, was sought from the University of KwaZulu-Natal prior to the commencement of the research project.

3.15 LIMITATIONS OF THE STUDY

The current study cannot claim to offer a comprehensive investigation of extensive existing empirical studies on entrepreneurship education. It utilised non-probability sampling techniques (quota and convenience sampling); hence the results of the study cannot be generalized. Moreover, with the number of institutions that offer entrepreneurship education in Ghana, the sample of institutions selected cannot be considered comprehensive. There are other programmes, similar to or considered to be superior to entrepreneurship education, that are designed with the intention of producing individuals who are capable of fitting easily into the labour market, either by way of employment seeking or creation. Hence, one's participation in entrepreneurship education cannot be used as a yardstick for his or her automatic absorption into the labour market.

There is a paucity of information on entrepreneurship education in emergent economies. As a result, the researcher considered information from different fields, and established relations between the variables considered in this study.

A longitudinal study would have been more appropriate to enable an effective assessment of the influence of EE on graduates. However, due to time constraints and inadequate resources, a longitudinal study was not suitable.

3.16 CHAPTER SUMMARY

The chapter provided a discussion on the methodology used by the researcher for the study. Key elements considered by the researcher were the research paradigm, design, and population, sampling size and techniques, as well as data collection methods and analysis. Other issues discussed had to do with reliability and validity, pilot testing, ethical clearance, and limitations of the study. The subsequent chapter, Chapter 4, deals with the presentation and discussion of the empirical findings of the study, based on the analysis of data obtained from graduates, human resources managers, and academics.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

The preceding chapter provided a comprehensive discussion and justification of the research methodology employed. Chapter four, consists of the data analysis, presentation, and discussion of the empirical findings of the study, obtained from quantitative and qualitative data. Data were gathered from graduates by means of a questionnaire survey, while data from the human resources managers and academics were obtained by means of questionnaires and interviews. Quantitative results are presented using descriptive inferential statistics, while qualitative results are presented by means of a test query search, and a mind and project map in accordance with the research objectives.

4.2 RESPONSE RATE

The quantitative aspect of the study targeted a sample size of 313 graduates, who did national service between August 2018 to October 2019, at twelve (12) state enterprises. The researcher distributed 10% more questionnaires than the required sample size of 313, resulting in the distribution of 344 questionnaires. This was in line with the recommendation by Kumar (2019), and Lang et al. (2019), namely, that a larger sample size is needed to improve the accuracy of findings when testing hypotheses. However, 320 questionnaires were returned. Table 4.1 below shows the response rate for the study.

Table 4.1: Graduate Response Rate

Respondent	Number of questionnaires administered	Number of questionnaires received	Response Rate (%)
Graduates	344	320	93

Source: Own compilation

Three hundred and twenty (320) responses were received, which signified that a total response rate of 93% was achieved. Out of the 344 questionnaires collected, three hundred and thirteen (313), representing 90.98%, were useful, while seven (7), 2.03 %, were rejected because they were answered incompletely.

Although some researchers argue that there is no acceptable standard for what a reasonable response rate is (Derera, 2015), a response rate of 93%, which was achieved in this study, is considered high (Saunders et al., 2016). Despite the weaknesses associated with the use of surveys, the attainment of this rate was possible because, aside from the fact that the researcher sought permission from the various HR managers to administer the questionnaires to the graduates, the questionnaires were user friendly, and were administered by either the researcher or the two (2) research assistants. In addition, respondents were made to submit the questionnaire to their respective unit heads for onward transmission to the human resources managers.

The qualitative aspect of the study targeted a sample size of twenty-nine (29) respondents. The sample size was made up of seventeen (17) lecturers and twelve (12) human resources managers. Out of the twenty-nine (29) participants, eight (8) were lecturers from three public universities, while all twelve (12) human resource managers were from selected state enterprises participating in the research. Table 4.2 below is a tabular distribution of the respondents for the study.

Table 4.2: Lecturers and Human Resource Managers' Response Rate

Respondents	Data Collection method	Targeted Sample Size	No. of respondents who participated in the study
Lecturers	Quantitative and Qualitative Data	17	8
Human Resource Managers	Quantitative and Qualitative Data	12	12
Total		29	20
Total Response Rate			68.96%

Source: Own compilation

Table 4.2 shows that a total of twenty (20) responses, representing a response rate of 68.96%, was achieved. The low rate of responses from academics (lecturers), was attributed to the fact that four were on study leave, two were on sabbatical leave, one had resigned, one opted not to take part in the research, while the other one was not available during the data collection period. On the other hand, all the HR managers were willing and available to participate in the data collection.

4.3 INSTRUMENT RELIABILITY

Although scholars such as Nunnally (1978) and Pallant (2005) have indicated that a Cronbach Alpha coefficient of 0.60 or more is considered to be reliable, a benchmark of > 0.70 , as recommended by Field (2002) as well as Pallant (2016), was adopted for this study. The table below presents the reliability test obtained from the pilot study.

Table 4.3. Instrument Reliability Result from Pilot Study

Study Variable	Number of Items	Cronbach's alpha
Entrepreneurial capabilities	37	0.969
Relevance of entrepreneurial capabilities	5	0.977
Entrepreneurial activities	10	0.844
Entrepreneurship education	9	0.891

Source: Own compilation

As shown in Table 4.3 above, the lowest Cronbach alpha recorded, which was 0.844, was above the benchmark recommendation of > 0.70 .

4.4. DEMOGRAPHIC INFORMATION FOR RESPONDENTS

4.4.1 Demographic Information of Graduates

The demographic information on graduates for the study is presented in the subsequent discussion. Information analysed with respect to the general background data of the graduates, included gender, university attended, year of graduation or completion, as well as programme of study. Other relevant background information included in the discussion, included whether they read a course in entrepreneurship and the duration of the entrepreneurship course, whether they were equipped with entrepreneurial competencies that could enable them to start a business in the future, and whether they were in a position to start a business in the future.

The gender distribution of graduates who participated in the study, is presented in Figure 4.1.

Gender of Respondents

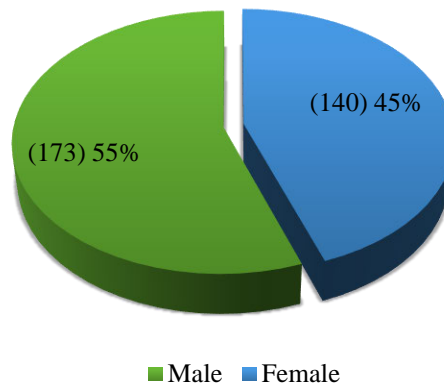


Figure 4.1: Gender Distribution of Graduates
Source: Own compilation

Figure 4.1 shows that the majority of the 313 respondents were male. While males represented 55% of the total respondents surveyed, females accounted for 45%. The finding is in line with studies (Aboagye, 2016; Donkor et al., 2019) that argue that there are gender disparities in higher education enrolment in favour of males, and that the enrolment numbers for girls are proportionately lower (Gender Parity Index of 0.64) than those for boys, especially in sub-Saharan Africa and Ghana.

A list of various universities attended by graduates, is displayed in Table 4.4.

Table 4.4: Institutions Attended by Respondents

No.	Institution	Frequency	%
1.	University of Cape Coast (UCC)	99	31.6
2.	University of Ghana, Legon (UG)	40	12.8
3.	Takoradi Technical University (TTU)	25	8
4.	Kwame Nkrumah University of Science and Technology (KNUST)	24	7.7
5.	University of Professional Studies, Accra (UPSA)	19	6.1
6.	University of Education – Winneba (UEW)	15	4.8
7.	Accra Technical University (ATU)	13	4.2
8.	University for Development Studies (UDS)	13	4.2
9.	Ghana Institute of Journalism (GIJ)	11	3.5
10.	Ghana Institute of Management and Public Administration (GIMPA)	7	2.2
11.	Ghana Technology University College (GTUC)	6	1.9
12.	All Nation University College (ANUC)	4	1.3
13.	Cape Coast Technical University (CCTU)	4	1.3
14.	Valley View University (VVU)	4	1.3
15.	Fountainhead Christian University College (FCUC)	3	1.0
16.	Kings University College (KUC)	3	1.0
17.	Kumasi Technical University (KTU)	3	1.0
18.	Methodist University College Ghana (MUCG)	3	1.0
19.	Accra Institute of Technology (AIT)	2	0.6
20.	Christ Apostolic University College (CAUC)	2	0.6
21.	Ho Technical University (HTU)	2	0.6
22.	Pentecost University (PU)	2	0.6
23.	Regent University (RU)	2	0.6
24.	University of Energy and Natural Resource (UENR)	2	0.6
25.	Central University (CU)	1	0.3
26.	KAAF University College (KUC)	1	0.3
27.	Presbyterian University College (PUC)	1	0.3
28.	Regional Maritime University (RMU)	1	0.3
29.	University of Mines and Technology (UMAT)	1	0.3
	Total	313	100

Source: Own compilation

The survey involved three hundred and thirteen (313) respondents from twenty-nine (29) different universities, technical universities, and other university colleges. In all, 31.6% of the overall respondents involved in the study, graduated from the University of Cape Coast. Participants who graduated from the University of Ghana (UG) represented 12.8% of the total, while 8% of those that participated in the study, were from the Takoradi Technical University (TTU). In addition, 7.7% of the graduates were from the Kwame Nkrumah University of Science and Technology (KNUST), while 6.1% were from the University of Professional Studies, Accra (UPSA).

The programmes of study that the graduates who participated in the study were involved in, are presented in Table 4.5.

Table 4.5: Programme of Study

No.	Programme	Frequency	%
1.	Accounting and Finance	75	23.96
2.	Management	55	17.57
3.	Marketing	24	7.68
4.	Computer Science	20	6.39
5.	HRM	15	4.79
6.	Psychology	14	4.47
7.	Communication Studies	13	4.15
8.	Secretariat and Management Studies	10	3.19
9.	Electrical Engineering	8	2.56
10.	Economics	8	2.56
11.	Political Science	7	2.24
12.	Tourism Management	7	2.24
13.	Sociology	6	1.92
14.	Arts	5	1.60
15.	Mathematics and Statistics	3	0.96
16.	Medical Laboratory Science	3	0.96
17.	Procurement and Supply Chain Management	3	0.96
18.	Real Estate Management	3	0.96
19.	Actuarial Science	2	0.64
20.	Agriculture	2	0.64
21.	Development Education Studies	2	0.64
22.	Human Settlement Planning	2	0.64
23.	Integrated Rural Art and Industry	2	0.64
24.	Public Relations	2	0.64
25.	Quantity Survey and Construction	2	0.64
26.	Science	2	0.64
27.	Social Science	2	0.64
28.	Telecom Engineering	2	0.64
29.	Agribusiness	1	0.32
30.	Basic Education	1	0.32
31.	Biochemistry	1	0.32
32.	Consumer Science	1	0.32
33.	Environmental Science	1	0.32
34.	Fashion Design and Textiles	1	0.32
35.	Home Economics	1	0.32
36.	Integrated Development Studies	1	0.32
37.	Law	1	0.32
38.	Marine Science	1	0.32
39.	Mining Engineering	1	0.32
40.	Nautical Science	1	0.32
41.	Social Change Communication	1	0.32
42.	Theology	1	0.32
	Total	313	100

Source: Own compilation

Approximately 23.96% of the respondents were people who had read or studied Accounting and Finance at their respective institutions. Respondents who read

management and marketing, accounted for 17.57% and 7.66% of the total participants, respectively. In the study, 6.5% of the respondents studied Computer Science and 4.7% read Human Resources Management. The degrees represented from other programmes are reflected in Table 4.5.

Since most of the state-owned enterprises are classified as “service industries”, individuals with backgrounds in business-related fields, were posted to these enterprises. This may be responsible for the large number of respondents with specialisations in business-related programmes (Accounting, Finance, Management, Human Resources Management (HRM), Secretariat and Management Studies, etc.), who were involved in the research.

Distribution of the number of graduates who read a course in Entrepreneurship is presented in Figure 4.2 below.

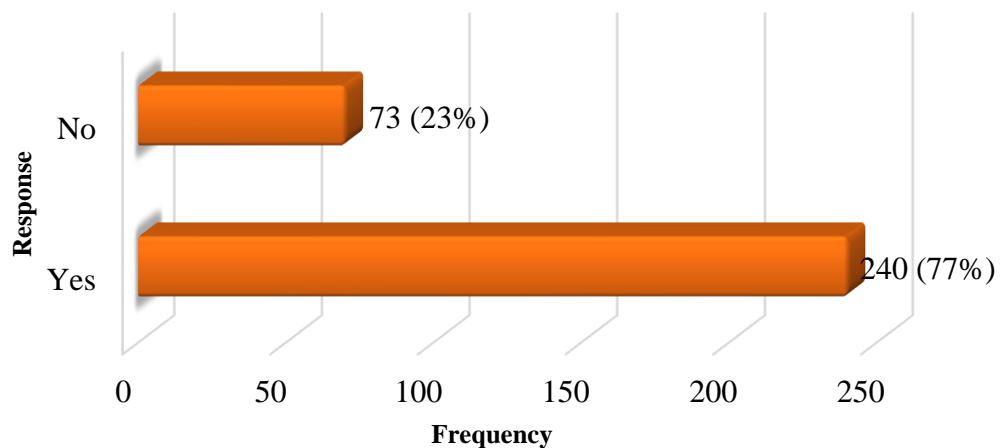


Figure 4.2: Previous enrolment in an entrepreneurship course
Source: Own compilation

Figure 4.2 shows that the majority (77%) of the respondents read a course in entrepreneurship at their respective universities. The finding confirms the 2003 directive from the Government of Ghana to tertiary institutions, namely, to ensure the teaching of entrepreneurship as a way of promoting self-employment, thereby curbing graduate unemployment in Ghana and complying with goal one of the United Nations Sustainable Development Goals (SDGs) agenda to reduce poverty (Dzisi, 2014).

The distribution of entrepreneurship students' year of graduation is displayed in Table 4.6 below.

Table 4.6: Year of Graduation

Year of graduation	Frequency	%
2018	241	77.00
2017	31	10.0
2019	14	4.5
2016	10	3.2
2015	4	1.3
2012	3	1.0
2014	2	0.6
2009	2	0.6
2010	1	0.3
2007	1	0.3
2006	1	0.3
2005	1	0.3
2004	1	0.3
2002	1	0.3
Total	313	100

Source: Own compilation

Table 4.6 depicts that the majority of respondents, representing 77%, graduated from universities in 2018, while the other 23% graduating in between 2002 and 2017. It was expected that all the graduates who did their national service between September 2018 to August 2019, would have graduated in 2018. However, this situation was not so.

The variation in the years of graduations, as seen in Table 4.6, can be attributed to the fact that, although national service is mandatory immediately after graduation, some respondents undertook it whenever they desired.

4.4.2 Demographic Information of Academics

Academics' demographic information is presented in the subsequent analysis. The first phase analysed the demographic data of academics who participated in the research. Background data of the respondents included gender, highest educational qualification, area of specialization, name of entrepreneurship course they teach, duration of teaching, and the nature of the business that the respondents are pursuing.

Data on gender distribution of academics is displayed in Figure 4.3

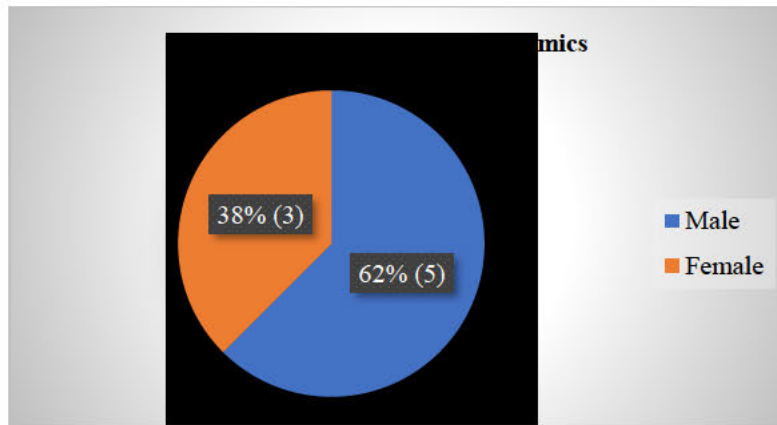


Figure 4.3: Gender Distribution of Academics

Source: Own compilation

Data from Figure 4.3 shows that majority (62%) of academics were males while the minority (38%) were females. The data confirms gender disparity-related issues in the Ghanaian job market, mostly in favour of males (Appiah-Kubi, Ceter & Luboder, 2020; Britt, Ivankovich, Essah & Fiscian, 2020).

The highest educational qualifications and areas of specialisation of academics are presented in Table 4.7.

Table 4.7: Highest Educational Qualifications and areas of specialisation

Highest Educational Qualification	Areas of Specialisation	Frequency	Highest Educational Qualification (% in Percentage)
Doctor of Philosophy	Entrepreneurship	2	25
	Marketing	1	12.5
	Development Studies	1	12.5
	Governance of Finance Institution	1	12.5
Total (%)			62.5
Master of Commerce	Marketing	1	12.5
Master of Business Administration	Entrepreneurship and Small Enterprise Development (ESED)	2	25
Total (%)			37.5
Total		8	100

Source: Own compilation

Data presented in Table 4.7 shows that 62.5 % of the respondents had Doctor of Philosophy (PhD) degrees while 37.5% had masters' degrees. Though PhD is a

requirement for appointment to teaching in Ghanaian Universities, some considerations are given to master degree holders.

Information on the nature of business that the respondents are pursuing is presented in Figure 4.4.

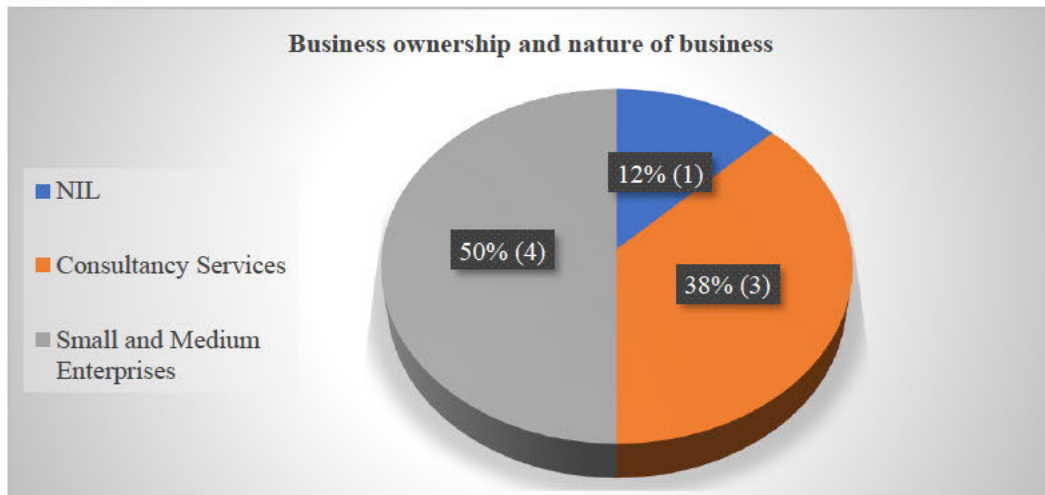


Figure 4.4: Business Ownership and Nature of Business

Source: Own compilation

Diegoli, Gutierrez and Salmones (2018) established that tutors or lecturers who own business have the capacity to influence development of entrepreneurship capabilities among participants. Figure 4.4 specifies that 88% of the respondents were into some form of entrepreneurial practices. Out of these 38% of the 88%, were into consultancy services while 50% were into running of small and medium enterprises. Only 12% of the respondents did not engage in any entrepreneurship activity.

Table 4.8 represents names of entrepreneurship course and duration of the course in the selected universities.

Table 4.8: Name of Entrepreneurship Course and duration of teaching in selected Universities

Name of Entrepreneurship Course	Duration of teaching
Introduction to Entrepreneurship	1 Semester
Introduction to Entrepreneurship and New Venture Creation	1 Semester
Fundamentals of Entrepreneurship	1 Semester
Entrepreneurship I	1 Semester
Entrepreneurship II	I Semester

Source: Own compilation

According to Patall et al. (2011), the duration of participation in a course, has the potential to influence the competencies that participants acquire. In line with the above claim, it can be argued from the data in Table 4.8, that students who participated in Entrepreneurship I & II had the opportunity to develop their entrepreneurial capabilities more than students who participated in either Fundamentals of Entrepreneurship, Introduction to Entrepreneurship, or Introduction to Entrepreneurship and New Venture Creation. Contrary to this argument, other researchers (Marope et al., 2017; Olokundun, 2017) are of the view that, it is the content of the entrepreneurship course that influences the development of entrepreneurial competencies, and not necessarily the duration.

4.4.3 Demographic Information of Human Resources Managers

The demographic variables considered for this discussion, are gender, current position of human resource managers, number of years working for the organisation, and highest level of education.

The gender distribution of human resources managers who were involved in the study, is presented in Figure 4.5 below.

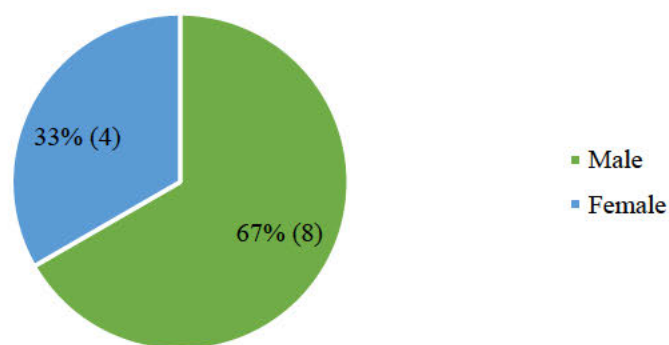


Figure 4.5: Gender distribution of Human Resource Managers

Source: Own compilation

It can be seen from Figure 4.5, that most of the respondents are male (66.7%), while the minority are female (33.3%). Research has established that women represent a small percentage of the global labour market as compared to men. A study conducted by Ganguli et al. (2014) concluded that the percentage of women in a senior management position, for instance, falls between 3 and 12 percent. This and other studies (Jackson,

2009; International Finance Corporation, 2018) conducted on the gender gap in the labour market, have been confirmed by the finding of this research, namely, that there is a male dominance in the Ghanaian labour market.

The data on respondents' current position and work experience in the organisation, are presented in Table 4.9 below.

Table 4.9: Respondents' Current Position and Work Experience

Participant ID	Current Position	Years of Service in the Organisation
HRM 1	Manager (Human Resources and Administration)	13
HRM 2	Human Resource Officer	10
HRM 3	Manager (Human Resources)	8
HRM 4	Chief Manager (Human Resources and Administration)	15
HRM 5	Human Resources Manager	28
HRM 6	Human Resources Officer	29
HRM 7	Human Resources Business Partner	4
HRM 8	Administrative Officer (Human Resources and Information Section)	10
HRM 9	Human Resources and Administrative Manager	12
HRM 10	Head (Human Resources)	5
HRM 11	Administrative Officer (Human Resources)	10
HRM 12	Human Resources Manager	12

Source: Own compilation

Table 4.9 shows that nine of the respondents had ten or more years of work experience in human resources-related jobs in their current work.

Data on the highest qualification reached by human resources managers, are presented in Table 4.10 below.

Table 4.10: Highest Qualification Levels of Human Resources Managers

Participant ID	Highest Qualification	Highest Qualification (in Percentage)	
HRM 1	Master of Public Administration (MPA)/Human Resources Management Practitioner	MBA	58.33% (7)
HRM 2	Master of Business Administration (MBA) (Human Resources Management)		
HRM 3	Master of Arts (Human Resources)		
HRM 4	Master of Business Administration	HRMP	16.68% (2)
HRM 5	Master of Business Administration	Master of Arts	8.33% (1)
HRM 6	Human Resources Practitioner		
HRM 7	Master of Business Administration	MPA	8.33% (1)
HRM 8	Human Resources Management Professional (HRMP)/CompTIA		
HRM 9	Bachelor of Law (LLB)	Bachelor	8.33% (1)
HRM 10	MBA (Human Resources Management), LLB		
HRM 11	Master of Business Administration		
HRM 12	Master of Business Administration		100%

Source: Own compilation

Most of the human resources managers, namely 58.33%, involved in the study, had second degrees with a specialisation in human resources management. Only (4) had professional certificates in human resources management. The subsequent section presents and analyses the empirical findings in line with the study's research objectives.

4.5 REALISATION OF RESEARCH OBJECTIVES ONE, TWO, THREE AND FOUR

This section presents and analyses the empirical findings, which are organised in accordance with the study's research objectives and questions. The research objectives were analysed quantitatively using standard deviation, and mean and structural equation modelling, and qualitatively through the use of frequency text query, project maps, as well as mind maps.

4.5.1 Research Objective One: To determine the entrepreneurial capabilities gained by graduates through entrepreneurship education

Research objective one was to determine the entrepreneurial capabilities gained by graduates, through their participation in entrepreneurship education. These entrepreneurial capabilities were measured by items in question 9 of the questionnaire. The entrepreneurial capabilities of graduates are presented according to three themes: entrepreneurial knowledge, entrepreneurial skills, and entrepreneurial attitudes.

Summary of Responses of Graduates on Entrepreneurial Capabilities

Entrepreneurial Knowledge: Table 4.11 below presents the mean and standard deviation of entrepreneurial knowledge gained by graduates, through participating in entrepreneurship education.

Table 4.11: Entrepreneurial Knowledge Gained through Entrepreneurship Education

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. I have entrepreneurial knowledge in work-related areas.	240	2	7	5.12	1.263
2. I have entrepreneurial knowledge in financial and economic literacy.	240	2	7	5.05	1.333
3. I have entrepreneurial knowledge in imagination.	240	1	7	4.90	1.548
4. I have entrepreneurial knowledge in general industry awareness.	240	2	7	4.83	1.342
Valid N (list-wise)	240				

Source: Own compilation

Table 4.11 is a summary of the mean score ranking as well as the standard deviation, for the various types of entrepreneurial knowledge that graduates possess. The research showed that entrepreneurial knowledge in work-related areas, as well as financial and economic literacy, are considered very important by graduates, with mean rankings of 5.12 and 5.05, and standard deviations of 1.263 and 1.333, respectively. It can also be seen that entrepreneurial knowledge in imagination was pegged at 4.90, with the highest standard deviation of 1.548, while entrepreneurial knowledge in general industry

awareness had the lowest mean of 4.83, with a second highest standard deviation of 1.342.

Entrepreneurial Skills: Table 4.12 that follows, represents the mean and standard deviation of entrepreneurial skills that graduates acquired from their participation in entrepreneurship education.

Table 4.12 depicts that none of the entrepreneurial skills had a mean score of less than 5.00. Entrepreneurial skills in effective personal learning had the highest mean of 5.73, with a standard deviation of 1.30. Entrepreneurial skills in understanding people of other racial and ethnic backgrounds, had the second highest mean of 5.68, with a standard deviation of 1.157, while entrepreneurial skills in self-awareness had a mean of 5.62 and a standard deviation of 1.136. The table also depicts that entrepreneurial skills in conducting marketing research and in analysis effective quantitative problems, had the least mean score rankings of 5.25 each, with the former having a standard deviation of 1.174, while for the latter it was 1.398.

Table 4.12: Entrepreneurial skills gained through entrepreneurship education

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. I have entrepreneurial skill in effective personal learning.	240	3	7	5.73	1.300
2. I have entrepreneurial skill in understanding people of other racial and ethnic backgrounds.	240	3	7	5.68	1.157
3. I have entrepreneurial skill in self-awareness.	240	3	7	5.62	1.136
4. I have entrepreneurial skill in customer relationship.	240	3	7	5.62	1.236
5. I have entrepreneurial skill in self-efficacy.	240	3	7	5.57	1.140
6. I have entrepreneurial skill in planning.	240	2	7	5.57	1.280
7. I have entrepreneurial skill in learning through experience.	240	3	7	5.55	1.241
8. I have entrepreneurial skill in understanding different social contexts.	240	3	7	5.55	1.156
9. I have entrepreneurial skill in working effectively with others.	240	2	7	5.55	1.307
10. I have entrepreneurial skill in self-insight.	240	2	7	5.53	1.186
11. I have entrepreneurial skill in critical and analytical thinking.	240	3	7	5.53	1.157
12. I have entrepreneurial skill in computing and information technology.	240	2	7	5.52	1.282
13. I have entrepreneurial skill in valuing ideas.	240	2	7	5.50	1.372
14. I have entrepreneurial skill in time management.	240	3	7	5.50	1.228
15. I have entrepreneurial skill in ethical and sustainable thinking.	240	3	7	5.47	1.081
16. I have entrepreneurial skill in spotting opportunities.	240	2	7	5.45	1.126
17. I have entrepreneurial skill in mobilising and organizing others.	240	3	7	5.43	1.307
18. I have entrepreneurial skill in assessing marketplace.	240	3	7	5.42	1.169
19. I have entrepreneurial skill in speaking clearly and effectively.	240	3	7	5.38	1.277
20. I have entrepreneurial skill in management of materials.	240	2	7	5.38	1.354
21. I have entrepreneurial skill in writing clearly and effectively.	240	1	7	5.38	1.263
22. I have entrepreneurial skill in persuading and negotiations.	240	2	7	5.33	1.230
23. I have entrepreneurial skill in conducting marketing research.	240	2	7	5.25	1.174
24. I have entrepreneurial skill in analysing quantitative problems.	240	2	7	5.25	1.398
Valid N (listwise)	240				

Source: Own compilation

Entrepreneurial Attitudes: Table 4.13 shows the mean and standard deviation for the various entrepreneurial attitudes, gained by graduates through participating in entrepreneurship education.

Table 4.13: Entrepreneurial attitudes gained through entrepreneurship education

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. I have an entrepreneurial attitude in self-motivating	240	3	7	5.68	1.255
2. I have an entrepreneurial attitude in taking initiative	240	3	7	5.67	1.244
3. I have an entrepreneurial attitude in perseverance	240	2	7	5.60	1.380
4. I have an entrepreneurial attitude in entrepreneurial passion	240	3	7	5.58	1.139
5. I have an entrepreneurial attitude in solving complex and real-world problems	240	2	7	5.57	1.280
6. I have an entrepreneurial attitude in personal code of values and ethics	240	3	7	5.55	1.346
7. I have an entrepreneurial attitude in coping with uncertainty, ambiguity and risk.	240	2	7	5.40	1.265
8. I have an entrepreneurial attitude in entrepreneurial identity.	240	3	7	5.35	1.117
9. I have an entrepreneurial attitude in contributing to the welfare of one's community.	240	1	7	5.23	1.294
Valid N (list-wise)	240				

Source: Own compilation

Self-motivation was ranked first in terms of importance as an entrepreneurial attitude, with a mean ranking score of 5.68 and a standard deviation of 1.255, ahead of taking initiative, which was ranked second with a mean ranking score of 5.67 and a standard deviation of 1.244. Near the bottom came entrepreneurial attitude in entrepreneurial

identity, with a mean score ranking of 5.23 and a standard deviation of 1.294. Last came entrepreneurial attitude in contributing to the welfare of one's community, which had a mean score ranking of 5.23 with a standard deviation of 1.294.

Summary of Responses of Academics on Entrepreneurial Capabilities

The quantitative responses obtained from academics were analysed qualitatively. Items that were as ranked 'agree to very strong agreement' were coded. The occurrence of significant attributes from the quantitative data were coded and examined qualitatively and not statistically as suggested by Sarja (2020). A frequency text query was run for all the responses under entrepreneurial capabilities (entrepreneurial knowledge, skills, and attitudes). All the variables measured had a frequency count of 50% or more (refer to Appendix E).

A text search query was, therefore, run for the various entrepreneurial capabilities and the results are presented below.



Figure 4.6: Entrepreneurial knowledge from perspective of academics

Source: Own compilation

Figure 4.6 represents relevant entrepreneurial knowledge that academics expected graduates to acquire from their participation in entrepreneurship education. The figure indicates that entrepreneurial knowledge in general industry awareness, work-related areas, and financial and economic literacy were ranked unanimously as very important by academics. However, the font size of the variable 'imagination' is an indication that, although it was important, the other three variables were ranked as being more important. This is because only half (4) of the respondents considered imagination as an important entrepreneurial capability (see Appendix E).

The entrepreneurial skills that should be acquired by graduates, from the view point of academics, are presented in Figure 4.7 below.

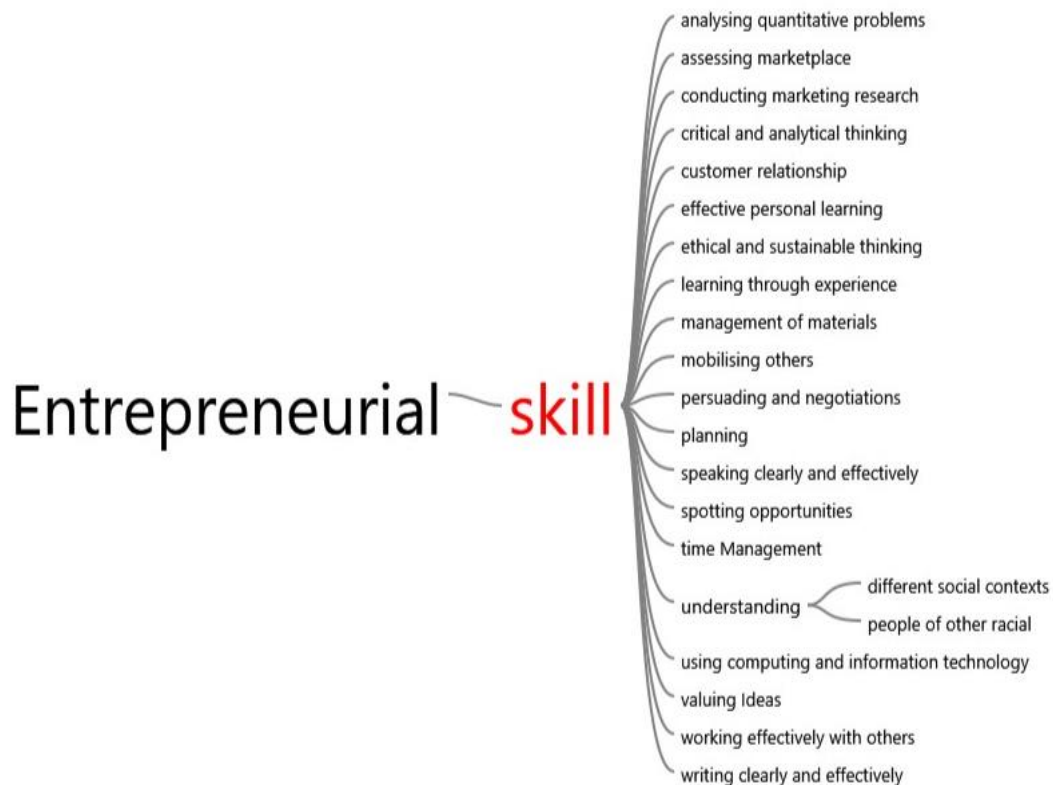


Figure 4.7: Important entrepreneurial skills from academics' perspective

Source: Own compilation

Figure 4.7 indicates that all the entrepreneurial skills were ranked either as very important or important by respondents, with a frequency count of more than four (4) (see Appendix E). By implication, each variable had a frequency count of 50% or more, based on their ranking by academics.

Academics considered as relevant the entrepreneurial skills relating to the abilities of analysing quantitative problems, assessing marketplace, conducting marketing research, and critical and analytical thinking, which students acquire from participating in entrepreneurship education. Other entrepreneurial skills gained by students after their exposure and engagement in entrepreneurship education, were customer relationship, effective personal learning, ethical and sustainable thinking, learning through experience, as well as management of materials. They also considered entrepreneurial skills in mobilizing others, persuading and negotiations,

planning, speaking and writing clearly and effectively, spotting opportunities, and time management as key elements that graduates acquire. Other important entrepreneurial skills were understanding different social contexts and people of other racial background, valuing ideas, working with others, and using computing and information technology.

Entrepreneurial attitudes that were acquired by graduates are presented in Figure 4.8 below.

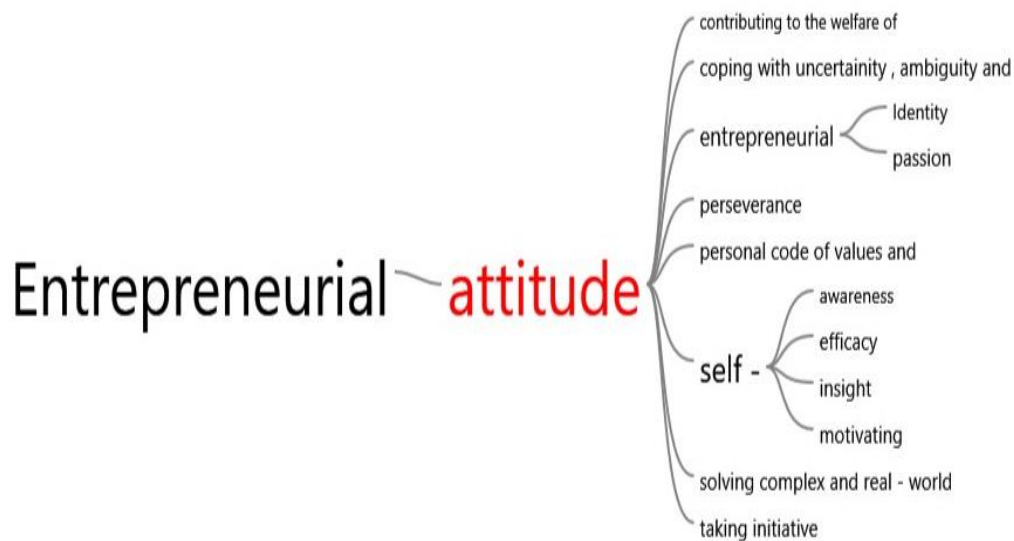


Figure 4.8: Important entrepreneurial attitudes from academics' perspective
Source: Own compilation

Figure 4.8 was generated from the views of academics on entrepreneurial attitudes that graduates acquired from entrepreneurship education. The figure shows that academics considered the ability of graduates to contribute to the welfare of others, coping with uncertainty, ambiguity, and risk, entrepreneurial identity and passion, perseverance, and personal code of values and ethics, as some of the entrepreneurial attitudes that graduates acquire. Other entrepreneurial attitudes gained by graduates were self-awareness, self-efficacy, self-insight and self-motivation, ability to solve complex and real-world challenges, and finally, taking initiative.

Summary of Responses of Human Resources Managers on Entrepreneurial Capabilities

This discussion centred on the entrepreneurial capabilities gained by graduates after partaking in entrepreneurship education, as viewed by human resources managers. Quantitative data obtained from question six (6) was analysed qualitatively, through the same procedures as that used for the academics. A frequency text query was run for all the words under entrepreneurial capabilities (entrepreneurial knowledge, skills, and attitudes). Major variables that had a frequency count of less than six were removed from the transcript. This is because any variable with a frequency count of less than six, implied that less than 50% of the respondents (12) recommended or certified it as a valuable entrepreneurial competency, that graduates were able to acquire from their participation in entrepreneurship education. Appendix F, for instance, indicates that variables such as imagination and entrepreneurial identity, under entrepreneurial knowledge and attitude that had a frequency count of less than six, were removed from the analysis. After that, a text search query was run for the various entrepreneurial competencies, and the results are presented in the next discussions.

Figure 4.9 below, which is on the entrepreneurial knowledge that graduates acquired through participating in entrepreneurship courses from HRM's viewpoint, shows that entrepreneurial knowledge in financial and economic literacy, general industry awareness, and work-related areas stood out.



Figure 4.9: Entrepreneurial knowledge from the viewpoint of HRMs
Source: Own compilation

These HRMs were able to attest to the entrepreneurial knowledge possessed by graduates, because they had enough contact hours with those who were performing their national service. HRMs considered general industry awareness and work-related

areas, as entrepreneurial knowledge acquired by graduates that were more important than their knowledge in financial and economic literacy.

The responses of the HR managers regarding entrepreneurial skills are presented in Figure 4.10 below.

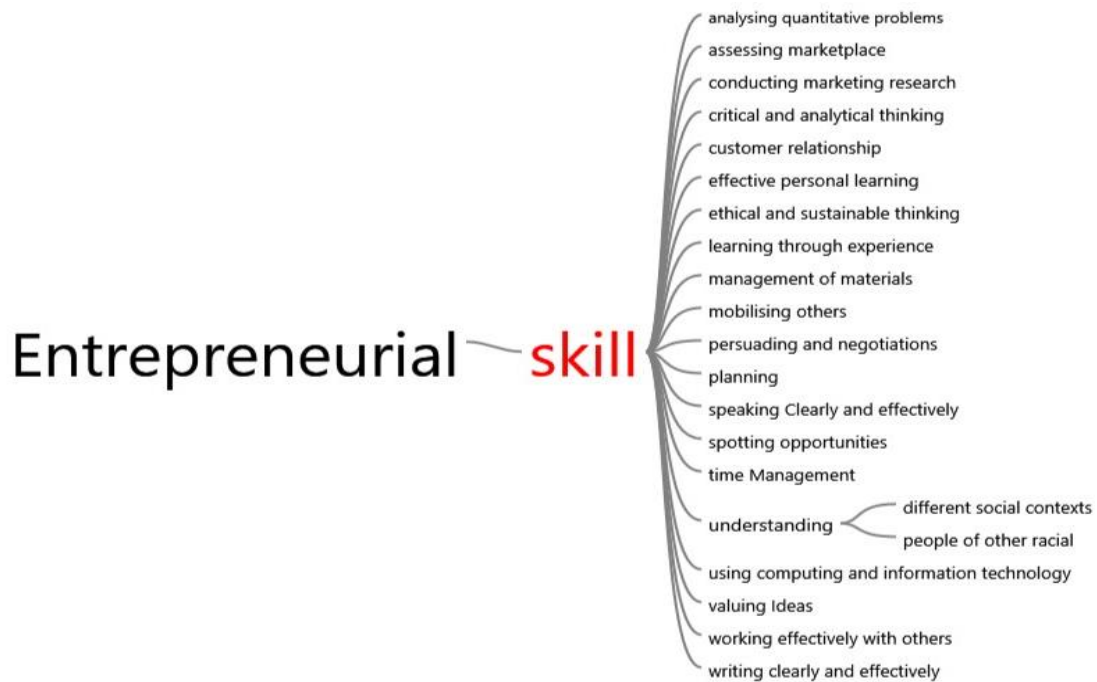


Figure 4.10: Entrepreneurial skills gained by graduates from the perspective of HRMs
Source: Own compilation

HRMs confirmed that graduates gained entrepreneurial skills in: analysing quantitative problems, assessing the marketplace, conducting marketing research, critical and analytical thinking, customer relationship, effective personal learning, ethical and sustainable thinking, learning through experience, as well as management of materials. They also testified that entrepreneurial skills in: mobilizing others, persuading and negotiations, planning, speaking and writing clearly and effectively, spotting opportunities, and time management, were imperative elements that graduates possess. Other relevant entrepreneurial skills were: understanding different social contexts and people of other racial backgrounds, valuing ideas, working with others, and using computing and information technology.

Figure 4.11 below indicates that human resources managers in Ghanaian state-owned enterprises considered coping with uncertainty, ambiguity and risk, entrepreneurial passion, perseverance, personal code of values and ethics, and taking initiative, as entrepreneurial attitudes that graduates developed because of their participation in entrepreneurship education.

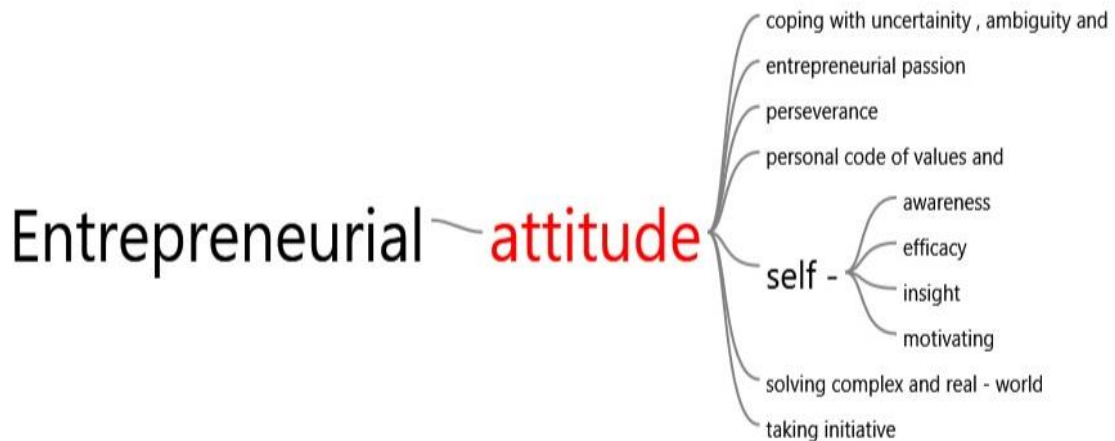


Figure 4.11: Entrepreneurial attitudes gained by graduates from HRMs' perspective

Source: Own compilation

The ability to solve complex and real-world challenges, self-awareness, self-efficacy, self-insight, and self-motivation, were also identified as entrepreneurial attitudes that were gained by graduates, after their exposure to entrepreneurship education. The same figure indicates that of all the entrepreneurial attitudes presented, only entrepreneurial identity was not considered important by human resources managers, with a word frequency count of one (1) (see Appendix F).

The results from research objective one indicates that all three categories of respondents agreed with the fact that, graduates acquire substantial entrepreneurial capabilities from participating in entrepreneurship education.

4.5.2 Research Objective Two: To Analyse the Relevance of Entrepreneurial Capabilities to Organisations

The focus of this research objective was to analyse the relevance of entrepreneurial capabilities within corporate organisations. Entrepreneurial capabilities are uniquely needed in the day-to-day running of an organisation. However, it seems that their

usefulness is often acknowledged by organisations who are able to distinguish them from general capabilities. It also appears that the general impression about entrepreneurial capabilities, especially in developing countries, is that they are only seen to be relevant when an individual pursues self-employment. The responses from the interviewees on the relevance of entrepreneurial capabilities, showed that these are essential ingredients in organisational development. The objective was measured based on questions 13 and 14 of the questionnaire. The relevance of entrepreneurial capabilities which are measured in relation to a firm's competitive advantage, sustainability, productivity, as employee performance, as well as resource mobilisation and utilisation, are presented and analysed next.

Relevance of Entrepreneurial Capabilities: Graduates' Perspective

Table 4.14 below presents the mean and standard deviation of the relevance of entrepreneurial capabilities, in line with responses from graduates.

Table 4.14: Relevance of Entrepreneurial Capabilities

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. Increase my performance.	240	3	7	5.60	1.251
2. Promote successful performance outcomes in business growth.	240	3	7	5.60	1.265
3. Increases survival and sustainability of the organisation.	240	3	7	5.53	1.295
4. Increase the firm's competitive advantage.	240	3	7	5.38	1.403
Valid N (listwise)	240				

Source: Own compilation

Table 4.14 indicates that all the variables measured under the relevance of entrepreneurial capabilities, had a mean of more than 5.00. The ability of graduates to utilise his or her entrepreneurial capabilities to increase his/her performance, and to promote successful performance outcomes in business growth, with a mean ranking score of 5.6 each and standard deviations of 1.251 and 1.265, respectively. The ability of graduates to use entrepreneurial capabilities to increase a firm's competitive advantage, had the least mean score ranking of 5.38 and the highest standard deviation of 1.403.

Relevance of Entrepreneurial Capabilities: Academics' Perspectives

The views of academics on the relevance of entrepreneurial capabilities, were analysed and presented as Figure 4.12 below.

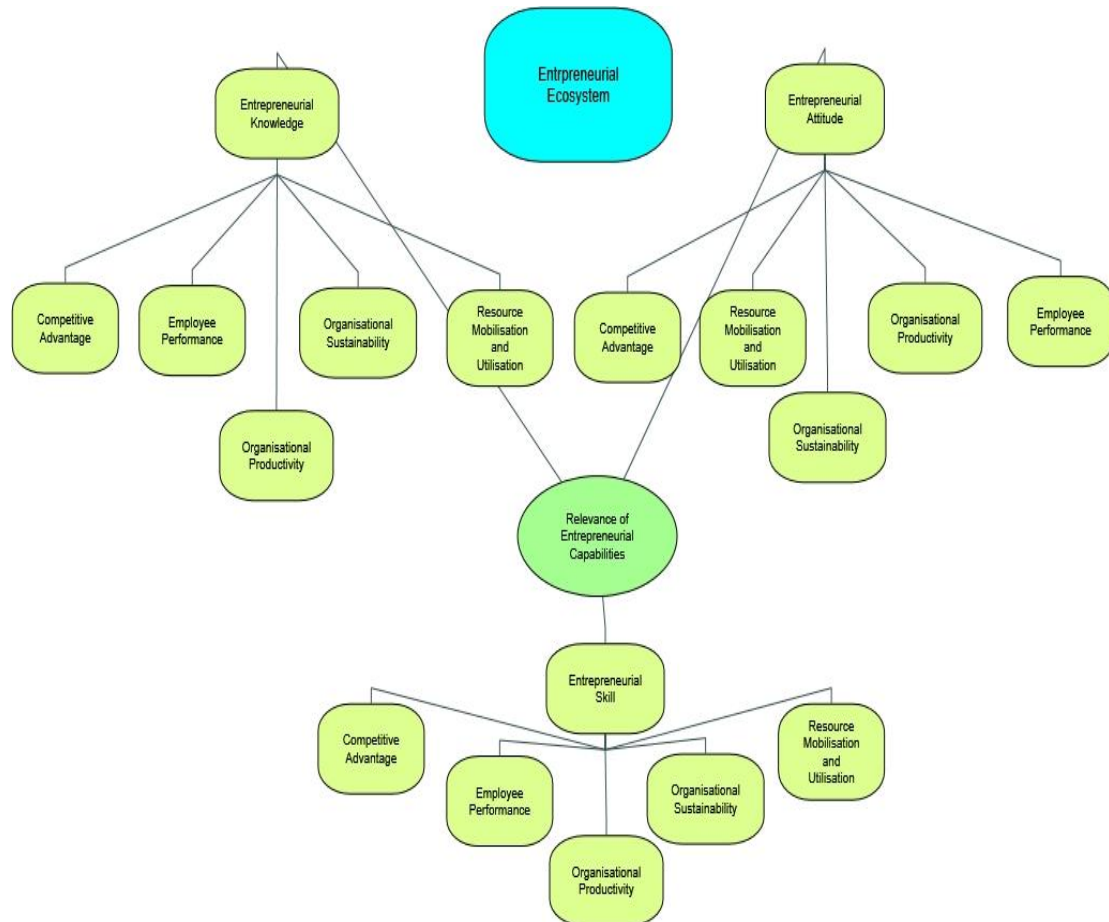


Figure 4.12: Perspective of academics on the relevance of entrepreneurial capabilities

Source: Own compilation

Figure 4.12 reveals that academics acknowledged the relevance of entrepreneurial capabilities in every organisation. These entrepreneurial capabilities manifest in an organisation's sustainability, competitive advantage, productivity, employee performance, as well as resource mobilisation and utilisation. Academics, however, argued during the interview, that the relevance of this could only materialise when there was a supportive entrepreneurial ecosystem for employees.

In analysing the relevance of entrepreneurial capabilities in promoting organisational sustainability, academics argued that a firm's organisational sustainability was

dependent upon the entrepreneurial capabilities possessed by its employees. The subsequent statements represent some of the quotes in support of the above assertions.

Lecturer 1 argued that:

“... so, if you are working for a social enterprise, for instance, you think of sustainability. When you get funding for the initial phase of your project, remember the funding would come to an end. How do you sustain that social enterprise? It is through your ability to operate viably, financially, and in all other aspects, so that you can then keep the organisation going. This demands that you have staff who are entrepreneurial in nature with the necessary acumen”.

Lecturer 2 was of the view that:

“If we are to hold all other reasons constant, organisational survival and sustainability is a must, if your employees have these competencies”.

Lecturer 4 also opined that:

“How can you survive if you don't have the manpower with the required competencies? Technically, these competencies are needed to make every organisation sustainable”.

The relevance of entrepreneurial capabilities on competitive advantage was analysed, and some of the academics' statements are presented below. Academics were of the view that, a firm's entrepreneurial capabilities would provide an organisation with the necessary internal resources to compete favourably in a given market or industry, and perform better than their competitors. The following statements buttress their claims:

According to lecturer 3:

“... definitely, because the organisation would behave differently from others. If you have someone who has entrepreneurial competencies, every day you would be ahead of your competitors”.

In a similar vein, Lecturer 5 argued that:

“It gives the firm competitive advantage in the areas of resource allocation, and risk mitigation. The causal thinking approach that I talked about, for instance, teaches the student the need to organise their means or factor[s] of production and then deploy [them]”.

Similarly, Lecturer 7 contended that;

“... so, the skills that students acquire through entrepreneurship programmes, place them a bit above their counterpart[s] or colleagues. So, organisations that have graduates who are well positioned, entrepreneurially, would always win the competition because they’ve [a] competitive edge over the other organisations”.

In analysing the relevance of entrepreneurial capabilities on organizational productivity, academics were of the view that, where a firm has employees with the requisite entrepreneurial capabilities, it is positioned to increase its productivity. The statements listed below were some of those from academics in support of these arguments.

Lecturer 5:

“With intrapreneurial people, given the options to think and make good suggestions, practice leads to productivity, especially where management accept those suggestions”.

Lecturer 7 also stated that:

“I believe once you have those competencies (entrepreneurial competencies), productivity would increase phenomenally”.

Lecturer 8 reasoned that:

“Without entrepreneurial capabilities there is nothing effective that can be done in any organisation. Talking about entrepreneurial skills, every organisation needs these skills that would enable it to push the agenda of the organisation. So, every organisation needs these entrepreneurial skills”.

The relevance of entrepreneurial capabilities on employee performance was also analysed. Academics were of the opinion that employees who possess entrepreneurial capabilities perform tremendously well within an organisation. To buttress this argument, academics stated the following opinions:

Lecturer 2 opined that:

“... it is these entrepreneurial competencies that influence the behaviour of the worker. Those entrepreneurial competencies and providing opportunities for staff to apply those competencies, has an impact on the emotions and mental state of the individual; and that will definitely increase the performance of the individual, which would in turn affect the performance of the organisation”.

Lecturer 4 also argued that:

“For me the most important part of your entrepreneurial skill as an entrepreneur, is your intrapreneurial skills when you find yourself in an organisational setup. I think your ability as an individual employee to behave as an entrepreneur within an established system, will certainly contribute to organisational success”.

The argument of lecturers 2 and 4 were not different from that of lecturer 5 who argued that:

“Even though the assumption is that we are training people to be job creators and not job seekers, when they find themselves in the corporate world, they are excellent human beings”.

An analysis of responses from academics, on the relevance of entrepreneurial capabilities on resource mobilization and utilization, was also carried out. Academics stated that employees with entrepreneurial capabilities, are able to manage and utilize an organisation's resources very well. Some of the opinions that they expressed, were as follows:

Lecturer 3 stated that:

“You manage resources in different areas; even in your home before you move out to an organisation. No matter how small the resources you have, you are able to manage [them] very well because you have the entrepreneurial competencies”.

Lecturer 5 also argued that:

“We introduce students to a number of competencies and strategies, such as bootstrapping strategies etc., that assist them to mobilise resource[s], especially in times of scarcity. Hence, they are better placed than their peers and competitors at the workplace”.

Lecturer 7 was of the view that:

“... with the competencies that they acquire, they are able to mobilise resources better and make good uses of these resources”.

However, academics argued that these capabilities could only translate into useful ingredients in an organisation, when the employee received the required support in the entrepreneurial ecosystem. An entrepreneurial ecosystem refers to the “institutional and organisational, as well as other systemic factors, that interact and influence the identification and commercialisation of entrepreneurial opportunities, that provide an employee with an enabling environment to perform [in]” (Malecki, 2018, p.7). In support of this view, some of the lecturers expressed the following:

Lecturer 4 argued that:

“I think they’ve that ability and the potential to execute any assigned responsibility. I used the word potential advisedly, because the fact that they have the potential requires an environment in the organisation that allows them to perform. So, for some of them who may not be able to perform, I think it might not be because they are unable in their own capacity, but the environment may not be allowing them to perform”.

The argument was also supported by lecturer 6 who was also of the opinion that:

“If they have the entrepreneurial capabilities and the appropriate environment are provided, they would perform better than their colleagues. Where key performance indicators (KPIs) are given, their entrepreneurial competencies would assist them to perform way above their peers and competitors”.

Relevance of Entrepreneurial Capabilities: HRMs’ Perspectives

The perspectives of HRMs on the relevance of entrepreneurial capabilities, are presented as Figure 4.13 below.

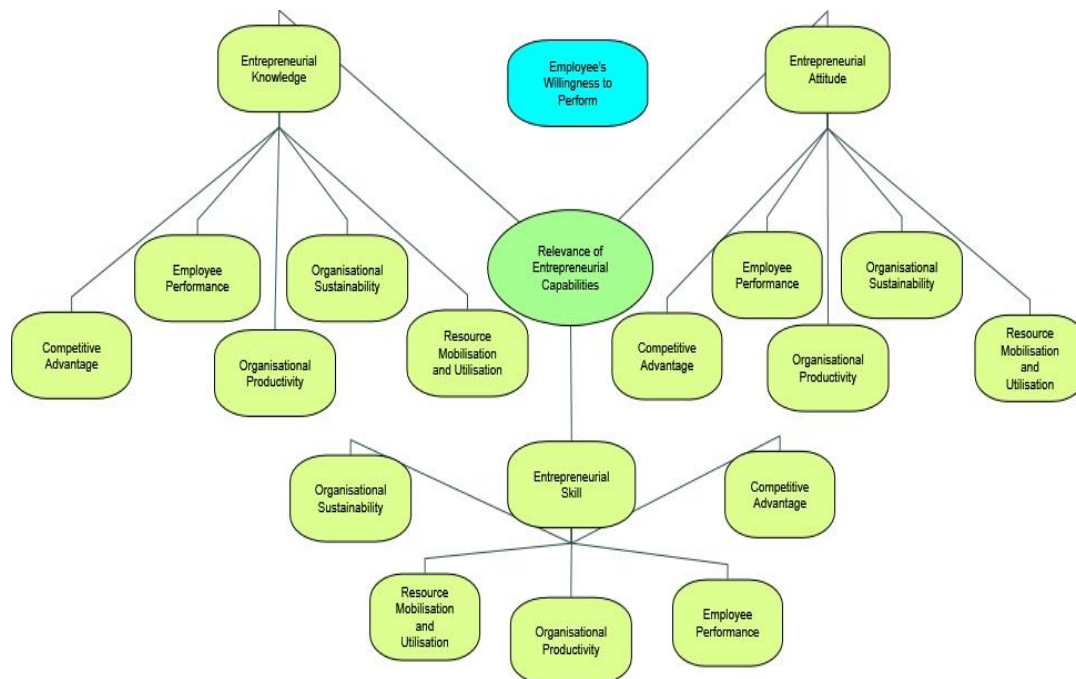


Figure 4.13: Perspective of HRMs on the relevance of entrepreneurial capabilities

Source: Own compilation

Figure 4.13 illustrates that HRMs, just like the lecturers, considered entrepreneurial capabilities relevant to the needs of every organisation. The HRMs argued that entrepreneurial capabilities are needed in every organisation, and their arguments were supported by the statements that follow. The analysis was done in line with the relevance of entrepreneurial capabilities to an organisation’s sustainability, productivity, employee performance, competitive advantage, and resource mobilisation and utilisation. It is worthwhile to note that HRMs argued that

employees' willingness to perform, played a critical role in meeting the needs of employers.

The HRMs were of the view that the future of an organisation, would be determined by the quality of its current labour force. As a result, employees with entrepreneurial capabilities are likely to ensure the sustainability of their organisation. The human resources managers had the following to say, when asked about the relevance of entrepreneurial capabilities in promoting organisational sustainability.

HRM 1 argued that:

“Yes, your organisation or staff would perform, and in performing bear in mind the interest of the organisation and its repercussion on the future of the organisation. In short, staff won't do things anyhow, which will lead to the collapse of the business or organisation”.

Again, HRM 2 was of the view that:

“In this our industry, you need all these competencies to survive.... These are crucial to the daily activities of this organisation; without them, nothing would happen in this working environment”.

HRM 5 also opined that:

“Basically, all these competencies are crucial for the survival of any organisation. Organisations need people with such competencies to give them [organisations] hope for the future. When an organisation has a blend of employees who have these competencies, then the firm can promise a better tomorrow”.

HRMs emphasised that organisations compete in a number of areas; hence, any organisation that has employees with entrepreneurial capabilities, stands a chance of competing with other industry players. Below were some of the statements from the human resource managers:

HRM 3 argued that:

“... there are competitions in the industry; so, if we have dynamic human resource[s], then it places your organisation in a better position to compete favourably in the market. We need good brains to compete for better deals and negotiate on our behalf. Without some of these competencies, we would've been submerged in the market”.

Equally, HRM 4 opined that:

“..... if you have individuals with all the competencies we discussed in your organisation, then you are fortunate. Your competitors would surely envy you if they should be aware of the competencies of your staff”.

HRM 10 also emphasised that:

“Being a government institution, it is up to us to position ourselves very well. So, if we get the right skills and right personality, why not? The entrepreneurial competencies count; you know, now we don't sit down [waiting for customers to come ... so if you are not being competitive, you are out”.

Respondents' comments on the relevance of entrepreneurial capabilities in organisational productivity, were analysed. HRMs stated that employees who possess entrepreneurial capabilities, have the potential to contribute immensely to organisational productivity. These assertions were supported by some of the following statements from human resource managers:

HRM 1 was of the view that:

“When you have workers who are confident, customers find them more amiable and things will be done smoothly; productivity would increase, you will get high profit margins, the company will have [a] good image, and the reverse is true”.

HRM 4 also stated that:

“To achieve maximum productivity, you need human beings with enough competencies to combine with the other factors of production. If you are an employer

and you are fortunate to have a blend of all these competencies, then your output would be very high”.

HRM 5 was of the opinion that:

“Definitely your business will grow. Production efficiency will be attained, sales will be high, and profit margins will shoot [up] because you have the rightful labour force working for you”.

In examining the relevance of entrepreneurial capabilities on employee performance, HRMs opined that employees who possessed these capabilities, would be efficient in their output and in the discharge of their responsibilities. They supported this claim by stating the following:

HRM 3 emphasised that:

“These national service guys possess most of the capabilities [entrepreneurial competencies] we discussed earlier, indeed they are so, and perform really incredible”.

HRM 7 argued that:

“You see when you look at all these values or whatever you’ve mentioned, it makes it easier for you to supervise the person who has all those skills and values. You don’t have to go and stand on him to do that he is supposed to do because he has the passion already. So, if you ask him, have you done this? And the person will say, oh sir, I was about [to] bring[ing] it to you”.

In the opinion HRM 8:

“Yes, definitely, if they’ve good communication skills and others, they would be efficient, they would exhibit that in their output, and at the end of the day, that is what would let [the] organisation go forward or make the organisation stand out”.

The HRMs argued that employees with entrepreneurial capabilities are in a position to mobilise and utilize resources effectively within an organisation. Their claim was substantiated by the following statements:

HRM 1 stated that:

“If your employees are performing because they possess [the] rightful competencies, it means they are also managing and using the little resources available very well”.

HRM 2 also maintained that:

“I think [that] with these entrepreneurial competencies some of them have, if they are given the opportunity to manage, they would. At least they manage their time very well, anyway”.

Similarly, HRM 5 also argued that:

“If production capacity of your firm increases, if sales and profit shoot, it means your employees are doing something right. This means they are managing and utilising your scarce resources effectively because they are acting entrepreneurially”.

It is of interest to note that while academics were of the opinion that the performance of employees, who possess these entrepreneurial capabilities, would be influenced by the entrepreneurial ecosystem, HRMs were of the view that these capabilities would only be relevant to an organisation, if employees were willing to use these as a result of being motivated. This was manifested in the following quotes:

HRM 5 argued that:

“Look, unless you don’t pay or motivate employees well If you do, I bet you, with these competencies at play within your organisation, employees input and output will always be maximized”.

HRM 8 was also of the view that:

“If it’s just about they [the graduates] possession [of] capabilities, then I will not agree [that] it adds up to firm performance in any form. But if they [graduates] are willing to perform, then that makes the organisation more profitable, ...”.

The results from research objective two depict that respondents acknowledged the relevance of entrepreneurial capabilities in every organisation. However, while academics argued that the usefulness of these capabilities manifest when a supportive entrepreneurial ecosystem is provided by the organisation, HRMs were of the view that the relevance of these capabilities is seen when the employee is willing to perform.

4.5.3 Research Objective Three: To Investigate the Entrepreneurial Activities Undertaken by Graduates in Entrepreneurship Education

The third research objective sought to investigate the various entrepreneurial activities that graduates experience in entrepreneurship education.

Entrepreneurial Activities in Entrepreneurship Education: Graduates’ Perspectives

The various entrepreneurial activities were measured by the items in questions 15 to 17 of the questionnaire. Table 4.15 illustrates the mean and standard deviation of responses from graduates.

Table 4.15: Entrepreneurial activities in entrepreneurship education

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. I participated in extracurricular activities.	240	1	7	4.85	1.376
2. There was an opportunity for me to participate in internship activities.	240	2	7	4.80	1.471
3. I acquired relevant job experiences during the field trip.	240	1	7	4.75	1.525
4. I was actively engaged in business plan competition.	240	1	7	4.63	1.737
5. I participated in a practical fieldwork.	240	1	7	4.62	1.552
6. I had the opportunity to participate in seminars during the entrepreneurship education.	240	1	7	4.53	1.610
7. I had the opportunity to participate in workshops during the entrepreneurship education.	240	1	7	4.50	1.420
8. I had the opportunity to participate in conferences during the entrepreneurship education.	240	1	7	4.48	1.578
9. I had the opportunity to participate in career guidance and talks.	240	1	7	4.40	1.719
10. I participated in an entrepreneurial club.	240	1	7	4.20	1.830
Valid N (list-wise)	240				

Source: Own compilation

Table 4.15 shows that all the variables had a mean score ranking in excess of 4.0, but not more than 5.0, with standard deviations ranging between 1.376 and 1.830. Graduates' experiences in extracurricular activities had the highest mean score ranking of 4.85, with the least standard deviation of 1.376. Their engagement in internship activities had a mean score of 4.80, with a standard deviation of 1.471. Participation in an entrepreneurial club had the least mean score of 4.20, but the highest standard deviation of 1.830. A mean score ranking of more than 4.0 for each

variable, as indicated in Table 4.15, indicates that graduates ranked all the variables as entrepreneurial activities that they experienced in entrepreneurship education.

Entrepreneurial Activities in Entrepreneurship Education: Insights from Academics

Qualitative insights from lecturers on the various entrepreneurial activities in entrepreneurship education experienced by students, are presented below. Some of the qualitative quotes were also used to justify the claims. Insights from the lecturers' perspective' on the potential entrepreneurial activities in entrepreneurship education being used in teaching, are illustrated in Figure 4.14.

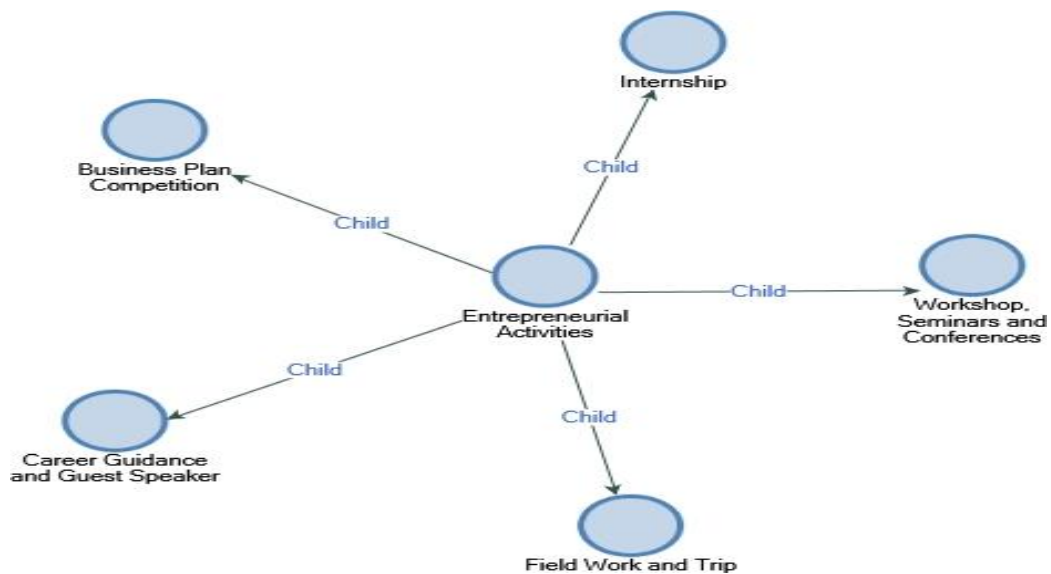


Figure 4.14: Entrepreneurial Activities in Entrepreneurship Education from Academics' Perspective

Source: Own compilation

Figure 4.14 shows the various available entrepreneurial activities used by academics in Ghanaian universities. Out of the eight entrepreneurial activities found in literature, Ghanaian lecturers make use of five, namely internship, seminars, field trip/work, career counselling/guest speakers, and business plan competitions. These entrepreneurial activities are a real means of impacting entrepreneurial capabilities, and inspiring the entrepreneurial intentions of graduates. However, entrepreneurial clubs, volunteerism, and watching inspirational speakers were not used in the teaching of entrepreneurship education.

In analysing the usage of workshops, seminars, as well as conferences as entrepreneurial activities, these were the views of the academics:

Lecturer 2 said:

“Entrepreneurial issues outside the classroom help in developing relevant entrepreneurial competencies”.

Lecturer 7 also argued that:

“Most often, we want to push students further, so we ask them to write reports, and it would interest you to know what students acquire from these workshops”.

Lecturer 8 also stated that:

“We normally invite seasoned entrepreneurs to teach the students”.

On the usage of internships in teaching entrepreneurship, it was disclosed that internships were restricted in most universities, but were a very good platform to promote entrepreneurial capabilities.

Lecturer 3 had this to say:

“Basically, that’s something we do in our university. It is mandatory, but not restricted to entrepreneurship”.

The argument is not different from that of lecturer 6, who averred that:

“We do it, but it is not attached to entrepreneurship education and it is not mandatory”.

According to Lecturer 8:

“We always ask our students to do internships, we attach them to various businesses, and when they are about [to] leave for these internships, we give them a book to record all that they do within the organisation, as well as what they learn on [a] daily and weekly basis”.

In analysing responses from academics about the use of career guidance and guest speakers in teaching entrepreneurship education, the following were some of their positions.

Lecturer 5, for instance, stated that;

“Yes! Guests share their experiences with the students. Students benefit a lot”.

Lecturer 6 was of this opinion:

“We bring solid guys [guests] to talk and coach students on entrepreneurial activities and practices”.

Finally, lecturer 8 argued this point by saying that:

“To us a role model is very good in impacting knowledge and inspiring others to pursue their entrepreneurial passion”.

The analysis of responses on the usage of business plan competitions in teaching entrepreneurship by academics, brought to bear the following.

Lecturer 4 underscored that:

“Yes! We use business plan[s] in teaching students entrepreneurial capabilities”.

Lecturer 5 was of the view that:

“We have what we call [a] business fair, where students are given the opportunity to convert their ideas into practice”.

Lecturer 6 also added that:

“We cannot teach entrepreneurship without business [a] plan competition”.

The analysis of the usage of fieldwork and trips also indicated that they were used sparingly in the teaching of entrepreneurship, although they were relevant in entrepreneurial capabilities development. For instance, lecturer 1 stated that:

“We use fieldwork and trips, occasionally, although we don’t have time to send students out most often”.

Lecturer 5 also highlighted that:

“The classroom activities need to be supplemented with practical activities because the classroom would make you [a] one-sided person. So, we do embark on industrial tours”.

In a similar vein, lecturer 8 argued that:

“We use fieldwork and trips, but when necessary”.

Entrepreneurial Activities in Entrepreneurship Education: Insights from HRMs

Qualitative insights from human resources managers on the potential of entrepreneurial activities in EE experienced by graduates, has been illustrated in Figure 4.15 below.

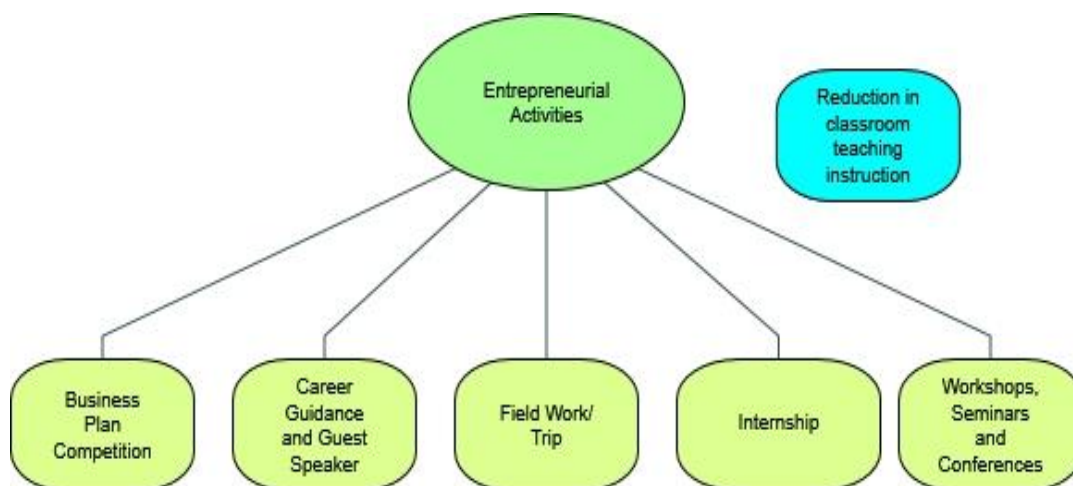


Figure 4.15: Entrepreneurial activities in entrepreneurship education from HRMs’ perspective

Source: Own compilation

From Figure 4.15, it can be seen that five major activities were considered and experienced as valuable to the development of entrepreneurial capabilities, by graduates. HRMs had encountered most of these, either as guests to some of the activities, or had hosted students on visits to their offices. The HRMs argued that there was the need to reduce teaching hours, in order to pave the way for the effective use of entrepreneurial activities when teaching EE.

Contrary to the argument by academics, the human resource managers believed that internships should form an integral part of the teaching of entrepreneurship. These were some of the relevant quotes regarding entrepreneurial activities from human resources managers:

HRM 2 had this to say:

“To me, internship should be integrated into the teaching of entrepreneurship”.

HRM 10 argued that:

“Let internship be part of teaching and let the students go out and have work experience”.

In terms of the usage of fieldwork and trips in teaching entrepreneurship, HRMs recommended that graduates should have exposure outside their normal classrooms. HRM Expressed this in the following ways:

HRM 6 opined that:

“After school, they [students] are expected to experience the world, so you need to incorporated aspects of the real word in teaching”.

HRM 10 argued that:

“You don’t expect the person [student] to sit behind books for 24 hours ... permit them to explore from the industry”.

HRM 11 was also of the view that:

“Fieldwork, trips, and tours are all needful. They see and they remember what was taught in class”.

In using conferences, seminars, and workshops in teaching entrepreneurship, human resources managers were of the view that these combined activities should be organised for students, since these promote the acquisition of competencies. HRMs argued this point in the ways that follow.

HRM 7 was of the view that:

“Lecturers should use these avenues to promote teaching and expose students to real-life situations”.

HRM 10 was also of the view that:

“Conferences, seminars, and workshops are crucial in teaching. Lecturers can’t teach everything all by themselves. Students must be engaged in other meaningful activities”.

HRM 11 stated that:

“If lecturers are not doing it now, I think they need to do that because that’s what will make students employable. You would have a good academic background, but what is important is what you can do”.

Human resources managers argued that for entrepreneurship education to thrive and achieve its purpose, there should be a reduction in classroom instructional time, so that students are adequately given the chance to participate in entrepreneurial activities. This, according to Balaguer et al. (2020), as well as Mendes et al. (2021), provides students with the opportunity to improve their academic confidence, sense of belonging, development of initiatives, interpersonal skills, as well as develop their social norms.

HRM 1 stated that:

“Personally, I will say they should reduce the theory and classroom teaching, but rather ask the students to do more practicals. Our educational system should be changed. More relevant competencies could be acquired from fieldwork or internships or volunteerism. These activities would provide students with the opportunity to have a real feel of what they are going to practice after school. This is the new way of educating any individual to become a productive member of the society”.

HRM 10 also opined that:

“It’s about time [that] we do things practically, and reduce the instructional period in class. You see why the Chinese and Japanese are way ahead of us? When we are thinking about books, they are using their hands. These activities would be useful in this competency development agenda”.

The results from research objective three shows that there are divergent views between graduates, and academics on the entrepreneurial activities that students experience in entrepreneurship education. For instance, while graduates argued that they had the opportunity to participate in internship as part of their engagements in entrepreneurship course, academics argued that internship was not part of the entrepreneurial activities students experienced in entrepreneurship education. HRMs also argued for a reduction in instructional hours so that students have adequate time to participate in entrepreneurial activities.

4.5.4 Research Objective Four: To Determine the Approaches Employed in Teaching Entrepreneurship Education

The approaches to entrepreneurship education were measured through questions 18 and 19, respectively in the questionnaire for graduates. The various approaches that graduates were exposed to in entrepreneurship education, are presented according to three themes: education about entrepreneurship, education for entrepreneurship, and education through entrepreneurship.

Approaches for Teaching Entrepreneurship Education: Graduates’ Perspectives

Education about Entrepreneurship: A summary of the mean and standard deviation of graduates’ responses on education about entrepreneurship, is illustrated in Table 4.16.

Table 4.16: Education about Entrepreneurship

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. The traditional lecturing method was used.	240	3	7	5.60	1.330
2. I was able to memorize important entrepreneurial concepts.	240	2	7	5.47	1.371
3. I was exposed to basic knowledge about general issues in entrepreneurship.	240	1	7	5.33	1.515
Valid N (list-wise)	240				

Source: Own compilation

The traditional teaching method was ranked first (1st) by respondents, amongst elements within education about entrepreneurship, having a mean of 5.60 with the lowest standard deviation of 1.330. Students' ability to memorize important entrepreneurial concepts was ranked second (2nd), obtaining a mean of 5.47 and a standard deviation of 1.371, while exposure to basic knowledge about general issues in entrepreneurship was ranked third (3rd), with a mean of 5.33 and the highest standard deviation of 1.515.

Education for Entrepreneurship: Table 4.17 below specifies the mean score ranking and standard deviation of graduates' responses, on the statement about their exposure to the education for entrepreneurship approach in their entrepreneurship studies.

Table 4.17: Education for Entrepreneurship

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
1. I was taught how to setup my own business.	240	2	7	5.53	1.396
2. I was encouraged to practice entrepreneurial activities.	240	1	7	5.47	1.535
3. Career-oriented teaching methods were used.	240	1	7	5.35	1.505
Valid N (list-wise)	240				

Source: Own compilation

It evident from Table 4.17 that graduates' exposure to how to setup a business, had the highest mean of 5.53 and the least standard deviation of 1.396. Encouragement to practice entrepreneurial activities, had the second highest mean of 5.47 and highest standard deviation of 1.535, while their exposure to career-oriented teaching methods had a mean of 5.35 and a standard deviation of 1.505.

Education through Entrepreneurship: The mean and standard deviation of graduates' perspectives about their experiences in education through entrepreneurship, are presented in Table 4.18 below.

Table 4.18: Education through Entrepreneurship

Variables	Frequency	Minimum	Maximum	Mean	Std. Deviation
2. I acquired both cognitive and non-cognitive competencies	240	1	7	5.38	1.451
3. I can set up my business.	240	1	7	5.33	1.422
4. Action-oriented teaching strategies were used.	240	1	7	5.30	1.544
Valid N (listwise)	240				

Source: Own compilation

The table indicates that the acquisition of both cognitive and non-cognitive capabilities, recorded the highest mean of 5.38 and a standard deviation of 1.451. Meanwhile, exposure to how to set up a business, had the second highest mean of 5.33, but had the least standard deviation of 1.422. Action-oriented teaching strategies had the lowest mean of 5.30, but the highest standard deviation of 1.544.

Approaches for Teaching of Entrepreneurship Education: Insights from Academics

Various approaches to entrepreneurship education were measured by questions fifteen (15) of the interview guides for lecturers. The views of academics on the approaches to the teaching of entrepreneurship are presented in Figure 4.16.

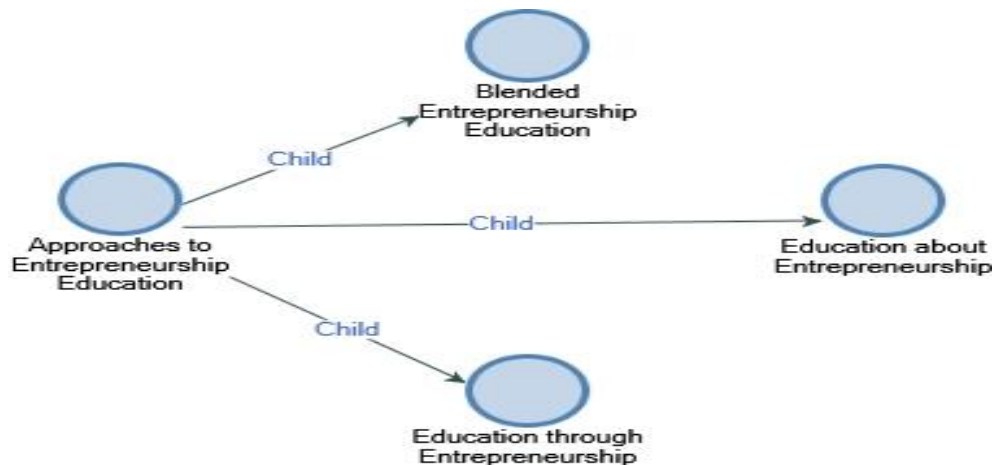


Figure 4.16: Approaches to entrepreneurship education from lecturers' perspective
 Source: Own compilation

Academics at the selected universities used education about entrepreneurship, education through entrepreneurship and the blended entrepreneurship education approach in their teaching. No lecturer made mention of the use of education for entrepreneurship, but rather advocated for the use of the blended teaching approach, which is an approach that amalgamates the various approaches to entrepreneurship education. The blended approach emerged as a crucial strategy in the teaching of entrepreneurship. It is an approach to entrepreneurship education that involves the adoption of different methods of delivery and teachings strategies, while striving to have clear communication between the parties involved (Maritz et al., 2010). The blended approach would assist in encouraging and broadening the perspectives of students, as well as the development of their entrepreneurial competencies and behaviour.

Responses on the blended approach were as follows:

Lecturer 3 noted that:

“Blended approaches (a combination of tutorials, presentations, as well as discussions) ... Presentation is even enough to make them employable within the corporate world because they stand in front of the class to present their ideas and findings to their peers, so wherever they go, presenting an idea or something would be very easy or simple”.

Lecturer 6 also underlined that:

“I use the blended approach with case studies, and it helps students understand issues better than lecturers telling them. Students, for instance, are able to experience real cases telling real stories about individuals and businesses. They don’t have anything more to acquire than these”.

Some lecturers argued that the education about entrepreneurship approach in teaching entrepreneurship education, was used since it was seen to be a requirement to meaningful impart entrepreneurial capabilities.

Lecturer 4, argued that:

“I lecture and I believe they acquire some valuable capabilities ...”.

Lecturer 7 was also of the view that:

“For them [students] to appreciate the practical aspects, they need the theories”.

The education through entrepreneurship approach was also used by some of the lecturers in teaching entrepreneurship education.

Lecturer 2 emphasised that:

“I don’t want to just come and talk. Most often I make sure that in each class, at least, we do one activity”.

A similar argument was raised by lecturer 8, who stated:

“They don’t appreciate the theory very well, but when it is done practically or hands on, they actually get much understanding”.

Approaches for Teaching Entrepreneurship Education: Insights from HRMs

Various approaches to entrepreneurship education were measured by question twelve (12) of the interview guides for human resource managers. HRMs advocated for the use of education through entrepreneurship, education for entrepreneurship, and education about entrepreneurship approaches, in the teaching of entrepreneurship in

Ghanaian universities. Figure 4.17 below presents the views of the human resource managers.

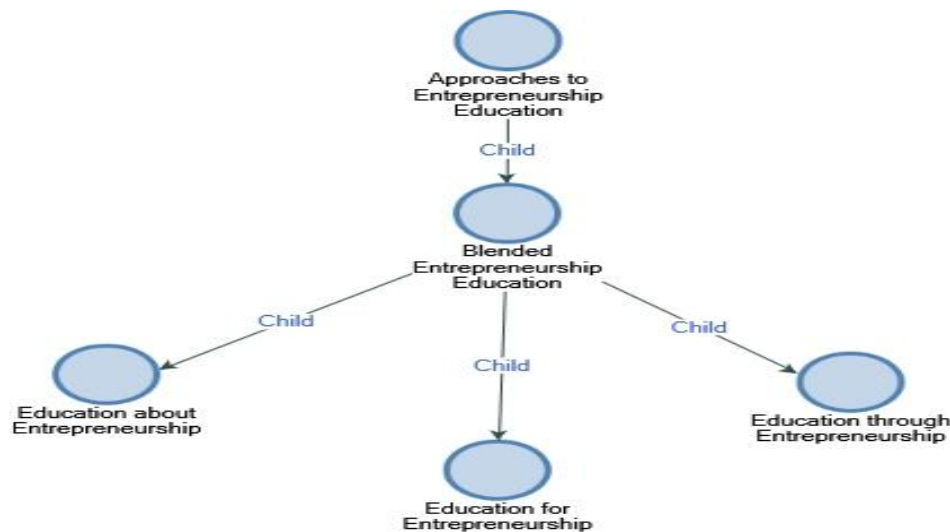


Figure 4.17: Human resource managers’ perspectives on the approaches to teaching entrepreneurship education

Source: Own compilation

Unlike the academics, it emerged from the interviews that the human resource managers argued that approaches to entrepreneurship education should be integrated as a blended approach, so that students would have the chance to experience the various elements of these approaches.

HRM 3 confirmed the position of human resource managers, by expressing that:

“Entrepreneurship education must be blended in nature, so that graduate would have the opportunity to acquire different competencies to make them complete individuals. You cannot talk about KFC just like that; you must let students appreciate the challenges and successes he faced, by also providing them with the opportunity to experience something similar. After the classroom theories, let them practice something”.

HRM 4 had this to say:

“It should be an all-round strategy: a bit of everything”.

The arguments of human resources managers 3 and 4 were not different from that of human resources manager 9, who was of the view that:

“Entrepreneurship education should [be] a blend of all teaching strategies. Jobs are hard to come by these days; if you blend all the strategies, then you can hope that you are exposing the students to all the competencies.... At least, if they are not able use their head, their hands will feed them”.

The arguments raised by those who promoted the use of a blended approach, do not imply that all the human resources managers were in support of this approach. Others argued for the use of education through entrepreneurship.

HRM 6, for instance, argued that:

“Don’t spoon-feed them, but rather guide discussions in class. Help them to do independent thinking and search for their own knowledge. This is [a] more meaningful way of learning and developing competencies”.

The statement made by HRM 6 corroborates that of HRM 10, who claimed that:

“We should help them to catch their own fish; lecturers can lead and allow them to go fishing; what kind of fish they bring in, they will select which ones they want to use, and leave the rest”.

The respondents (graduates, lecturers and HRMs) indicate the need for universities in Ghana to integrate all the approaches (education about, education for and education through approaches) in teaching entrepreneurship.

4.6 REALISATION OF RESEARCH QUESTIONS FIVE, SIX AND SEVEN

4.6.1. Research Question Five: To what Extent do Entrepreneurial Activities Affect the Development of the Entrepreneurial Capabilities of Graduates

The research question was meant to examine the effects of the various entrepreneurial activities in entrepreneurship education, on the development of graduates’ entrepreneurial capabilities. The effects of the various activities were measured by question 11 of the interview guides, for both lecturers and human resources managers. Responses from academics and human resources managers were analysed qualitatively, as shown in Figure 4.18.

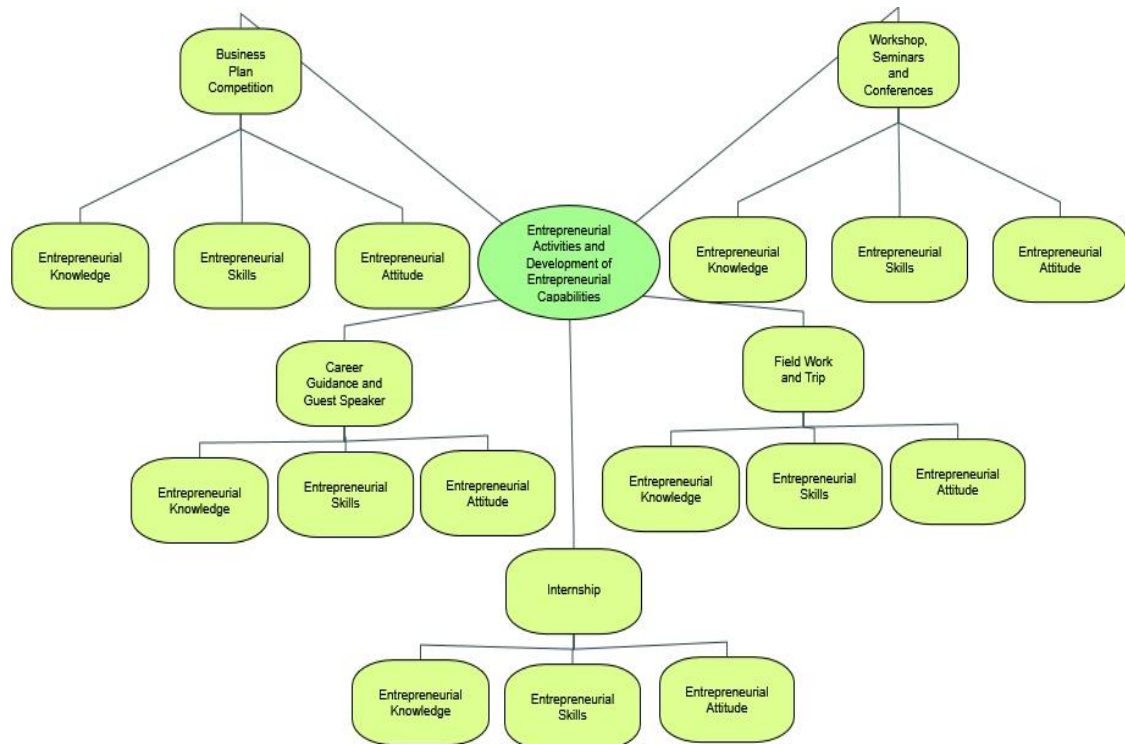


Figure 4.18: Perspective of academics and HRMs on the effect of entrepreneurial activities on the development of entrepreneurial capabilities

Source: Own compilation

It can be deduced from Figure 4.18, that both the academics and the human resources managers concurred that the five entrepreneurial activities of internship, business plan competitions, fieldwork and trips, career guidance and guest speakers, as well as workshops, seminars and conferences, influenced the development of graduates' entrepreneurial capabilities.

Effects of Entrepreneurial Activities on the Development of Entrepreneurial Capabilities: Insights from Academics

Academics who participated in the research indicated that entrepreneurial activities that are employed in entrepreneurship education, have the potential to positively influence the development of graduates' entrepreneurial capabilities.

The analysis of academics' responses presented in Figure 4.18, indicate that entrepreneurial activities have positive effects on the development of entrepreneurial capabilities among graduates. The analysis was done in line with the five entrepreneurial activities considered useful in teaching entrepreneurship education, and their effects on the development of entrepreneurial capabilities (knowledge, skills,

and attitudes). The five entrepreneurial activities were: workshops, seminars and conferences, internships, fieldwork and trips, career guidance and guest speakers, and business plan competitions. Qualitative quotes from academics that confirm the effects of entrepreneurial activities in EE on graduates' employability, are presented below.

Academics emphasised that workshops, seminars, as well as conferences influence the development of entrepreneurial capabilities positively. The following quotations represent the views of those in favour of this claim.

Lecturer 2 stated that:

"... they [entrepreneurial activities] are real means of helping students develop their entrepreneurial competencies".

Lecturer 3 also claimed that:

"Entrepreneurial issues outside the classroom help in developing relevant entrepreneurial competencies. It provides you with the opportunity to learn more unique ways of solving challenges within our societies and the corporate world".

In a related statement, lecturer 7 explained that:

"Most often, we want to push students further, so we ask them to write reports and it would interest you to know what students acquire from these workshops".

Again, academics argued that a student's exposure to an internship, would have positive effects on the development of his or her entrepreneurial capabilities.

Lecturer 2 mentioned that:

"The experience gained assists students to acquire some capabilities and competencies, like networking, managing business failures, etc., that they cannot find in the classroom".

Lecturer 3 was also of the view that:

“The truth is that we cannot teach them everything in the classroom, so students are mandated to engage in internship[s] to polish the competencies they acquire from the classroom, and [to] develop new ones”.

Lecturer 7 also underscored that:

“Based on the report interns write, it shows that students who don’t do [an] internship would always lack [these competencies] ... because those who participate, go to acquire competencies that are needed, i.e., hands-on competencies from organisations. It is one of the important things that enhance entrepreneurial competencies’ development”.

The study also reveals that academics agreed that fieldwork and trips, significantly influence the development of entrepreneurial capabilities.

Lecturer 4 expressed that:

“Definitely you will learn something more, and it will further build your confidence”.

Lecturer 5 also stated that:

“The classroom activities need to be supplemented with practical activities, because the classroom would make you a one-sided person. ... when you are [in] the field, you would see how real customers behave and learn something [valuable]”.

In analysing the effect of career guidance and guest speaker on development of entrepreneurial capabilities, it was found that academics asset to its significant role. They raised the underlisted arguments.

Lecturer 5, claimed:

“I bring practitioners - those who have made it in business. They share their experiences with the students. Students benefit a lot”.

Lecturer 6, for instance, concluded that:

“We bring solid guys to talk and coach, so we believe the students are positioned to acquire something valuable”.

Lecturer 8 also argued that:

“To us, role model[ing] is very good in imparting knowledge and inspiring other[s] to pursue their passion. The individuals we invite provide students with real examples for the students to learn from such experiences”.

Again, in analysing the effects of business plan competitions on the development of entrepreneurial capabilities, academics agreed that these had a positive influence on their development. The following quotes represent some of the arguments put forward by academics.

Lecturer 1 emphasised that:

“They would develop their communication skills, they would also end up improving their presentation skills, they would end up improving upon their writing skills, and then more importantly for the critical or core entrepreneurship skills or competencies, the[ir] attitude towards entrepreneurship. I believe they would be enhanced”.

Lecturer 2 also argued that:

“... it provides the opportunity to learn from realities. The business plan competition helps them [students] to acquire skills in writing, team spirit or work, ability to synthesise information, as well as communication [skills]. It provides a field to [practise] what they learn in the classroom”.

Lecturer 7 opined that:

“Yes, because if you look at what they do during the business fair, then you can conclude that if they don't have the competencies, they can't do that. It is unbelievable”.

Effects of Entrepreneurial Activities on the Development of Entrepreneurial Capabilities: Insights from HRMs

The perspectives gathered from the human resources managers, indicated that entrepreneurial activities had a positive effect on the development of entrepreneurial capabilities (knowledge, skills and attitudes). This perspective was not different from that of the academics.

As indicated in Figure 4.18 above, the HRMs stated that five of the entrepreneurial activities influenced the development of entrepreneurial capabilities, namely, internships, business plan competitions, fieldwork and trips, career guidance and guest speakers, as well as workshops, seminars and conferences. Some statements from human resource managers, that affirmed the potential influence of entrepreneurial activities in EE on graduates' entrepreneurial capabilities development, are given below.

The analysis of the conversations with HRMs on the effects of workshops, as well as seminars and conferences, on the development of graduates' entrepreneurial capabilities, confirmed that human resources managers considered the former as being crucial in the development of the latter.

HRM 1 argued that:

“Students acquire numerous competencies when they are given a chance to participate in some of these conferences and workshops. Competencies such as confidence, presentation skills, relationship-building, organising, planning, and others, are well built when students have these platforms”.

HRM 3 was also of the view that:

“Conference[s] would help them to become professionals in their outlook, and knowledgeable in the[ir] skill[s] area. The conference would provide them with the opportunity to develop interpersonal and teamwork skills, and would also help them make better career choices”.

HRM 4 had this to say:

“Workshop[s] and conferences are organised intermittently to throw more light on things that have been taught. This bridges the gap between academia and work life (like the companies), hence students should be encouraged to partake in [these]. It is very important for the development of competencies”.

Again, the analysis of responses from human resources managers, on the effect of fieldwork and trips on the development of entrepreneurial capabilities, also confirmed a positive impression about the influence of the former on the latter. Some of the claims to support this were as follows:

HRM 1 argued that:

“Our educational system should be changed. More relevant competencies could be acquired from fieldwork or trip[s]. These avenues would provide students with the opportunity to have a real feel of what they are going to practice after school. Students can observe and provide empirical solutions to issues around them. This is the new way of educating any individual to become a productive member of any society”.

HRM 2 also claimed that:

“Students get the opportunity to experience real work situations. At least it inculcates in students that sense of responsibility and responsiveness to duty”.

The positions of HRMs 1 and 2 were not different from HRM 4, who was of the view that:

“It provides them [students] with opportunities to experience some real competencies at work”.

The analysis of the influence of internships on the ability of graduates to develop entrepreneurial capabilities, revealed a positive position in favour of these, by human resources managers. The following statements represent some relevant quotations in support of this claim:

HRM 3 affirmed that:

“They are provided with the opportunities to understudy somebody, and are assigned specific tasks for some period of time. All these provide them with the avenues to pick and develop relevant competencies needed by organisations”.

HRM 5 also acknowledged that:

“First of all, what is the rationale behind internship and stuff like that? to equip them with practical knowledge, and for them to also have hands-on experience, so that they can relate what they learn in the classroom to what is being done [in] the field. So, it’s key, it’s important. They would even appreciate whatever they are learning in the classroom more, when they are able to get down [in]to the field and have hands-on experience”.

HRM 9 was also of the opinion that:

“Like I said, what we learn from school and what we do on the job, are two different things. We only relate, we only bring very few of the things at school to the workplace Internship helps to understand what they are learning from school better, and as well acquire other relevant competencies needed by employers”.

Analysing human resources managers’ perspectives, confirmed the positive effects of career guidance and guest speakers, on the development of entrepreneurial capabilities. Some of the HRMs had the following to say regarding this point:

HRM 3, for instance, was of the view that:

“I have been an advocate for the universities to bring some people from industries into academia, to just engage them even at the teaching assistant level. This is a better way to get them [students] [to] actualise what they study at school”.

A similar position was expressed by HRM 5, who argued that:

“[Having a guest speaker] is a very good platform to impact relevant competencies to students. This is because the person who will talk is likely to be an individual with

in-depth knowledge or skills in the area. So, if you have the opportunity to listen to Ken Ofori Atta or MacDan, won't you walk away with some competencies?"

HRM 9 also confirmed that:

"[Engaging a guest speaker] will go a long way to help students develop requisite competencies. You hear it from the horse's mouth. If you are lucky to get someone to coach you on your chosen field, then you are fortunate because the person will share experiences he had gathered with you. What else will you need?"

Regarding the effects of business plan competitions on the development of entrepreneurial capabilities, when analysing human resources managers' views, proved that they were vehemently in support of this activity. The following were some of the arguments raised.

HRM 5 affirmed that:

"After they have gone through theories in entrepreneurship, they must practice. The business plan is their key to the practice of entrepreneurship. Because in writing a business plan, as a group for instance, all the competencies listed above would be put to practice; team work, tolerance, communication, passion, just to mention a few"

HRM 7 also acknowledged that:

"You know it is one (business plan) of the main reasons that usually brings entrepreneurs down. They find it difficult to put their ideas on paper for somebody to understand it well. So, if these competitions are organised, I'm sure it will help them in the development of entrepreneurial capabilities"

Similarly, HRM 9 also stated that:

"If you are to compete, it means you've some level of competencies that you are expected to put it to use. So, [a] business plan competition will be a nice platform for students to polish what they have and acquire more from other competitors"

The insights from both academics and HRMs on research question five indicate that entrepreneurial activities assist in the development of entrepreneurial capabilities in graduates who partake in entrepreneurship education.

4.6.2 Research Question Six: What are the Effects of Different Approaches of Teaching Entrepreneurship on the Development of the Entrepreneurial Capabilities of Graduates

Research question six sought to determine the influence of the various approaches to entrepreneurship education, on the development of employability capacities among university graduates. Items twelve (12) and fifteen (15) in the questionnaire for both human resources managers and academics, were used to elicit this information. The influence of the different approaches to entrepreneurial capability development, from the perspectives of lecturers and human resources managers, is illustrated in Figure 4.19.

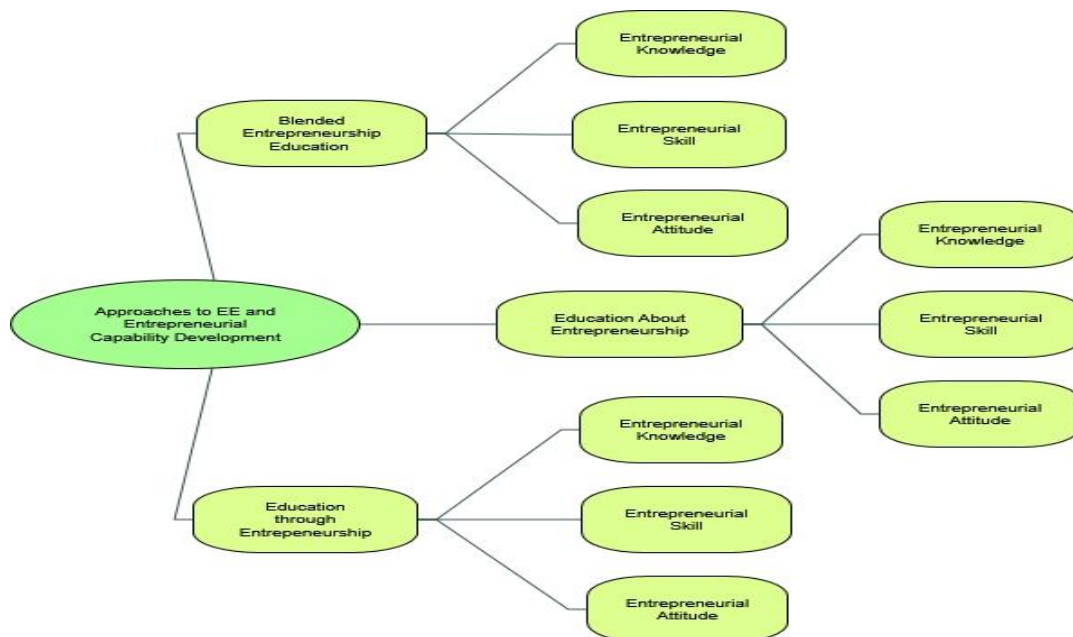


Figure 4.19: Approaches to entrepreneurship education and entrepreneurial capabilities: The views of academics and HRMs

Source: Own compilation

Effects of Different Approaches to Teaching Entrepreneurship on the Development of Entrepreneurial Capabilities: Academics' Perspectives

Figure 4.19 indicates that academics perceived the different approaches to entrepreneurship education, as means through which graduates develop their

entrepreneurial capabilities. They argued that the various approaches facilitate the development of entrepreneurial knowledge, skills, as well as attitude.

The following quotes from lecturers represent the effects of different approaches to entrepreneurship education, on the development of graduates' employability capabilities. The analysis was done in line with various effects of the blended entrepreneurship education approach, combining the education through entrepreneurship and education about entrepreneurship approaches, on the development of entrepreneurial capabilities.

In analysing the effects of education about entrepreneurship on the development of the entrepreneurial capabilities of graduates, it was argued by lecturer 4 that:

"They acquire knowledge, skills, and also develop confidence - an entrepreneurial attitude, which is a key factor".

Lecturer 6 also confirmed that:

"They acquire more cognitive abilities because what I teach is only meant to change the thinking of the students".

The effect of education through entrepreneurship on the development of entrepreneurial capabilities was analysed, and these were the arguments of some of the academics:

Lecturer 2 argued that:

"The education through entrepreneurship approach, provides the students with the opportunity to translate acquired entrepreneurial capabilities into action, and that makes them [students] employable".

Lecturer 7 also stated that:

"... the approach is hands-on and practical, so students are able to acquire relevant capabilities that promote employability, be it preparation to work or competencies development".

Academics argued that the blended entrepreneurship education approach, would facilitate the easy development of entrepreneurial capabilities, more than any of the approaches by themselves. The blended entrepreneurship education approach, in this context, involves the integration of various pedagogical strategies or entrepreneurial stimulus initiatives, aimed at inculcating entrepreneurial capabilities and behaviour among learners (Deacon & Harris, 2011). Academics stated the arguments below in support of these claims.

Lecturer 1 mentioned that:

“The approach aims at training students to go out to deliver and to carry out a particular task – the task of entrepreneurship. In teaching them through this approach, students become more employable”.

Lecturer 5 acknowledged that:

“The blended entrepreneurship approach is not only about theories and classroom activities; students [also] acquire relevant capabilities through practice. This enables them [students] to understand the various facet[s] of entrepreneurship, and makes them [students] employable”.

Lecturer 8 also commented that:

“The approach develops both cognitive and practical aspects of student[s] in a wholistic manner, and once you are developing them [students] wholistically, it means all the necessary capabilities are being developed”.

Effects of Different Approaches of Teaching Entrepreneurship on the Development of Entrepreneurial Capabilities: HRMs’ Perspectives

In line with the views of the lecturers, the human resources managers also advocated for the amalgamation of all the approaches, to constitute a blended approach to entrepreneurship education (see Figure 4.19). They were of the opinion that a blended approach to entrepreneurship education, would introduce graduates to all the facets of the necessary entrepreneurial capabilities – a requisite to produce a well-rounded labour force.

HRMs who argued for the significant influence of the blended approach to entrepreneurship education, were of the following views:

HRM 2 argued that:

“The approach helps students to have multi-dimension thinking abilities. That is what entrepreneurship is all about; it is multi-dimension in thought. This help graduates to acquire relevant skills that help them to perform and think differently”.

HRM 3 stated that:

“It provides students with the opportunity to engage in more meaningful practical activities, thereby assisting them in the acquisition of [the] required competencies needed by industry players”.

HRM 8 was also of the view that:

“Students will be trained to be self-fulfilled because they possess all the relevant entrepreneurial competencies”.

HRM 9 expressed it in this way:

“Yes! We are talking about complete individuals; complete in the sense that they possess almost all the competencies we talked about. The students will acquire the competencies they need to succeed in our labour market”.

HRM 10 added:

“We will develop their minds, their hands, and attitudes. The skills they would acquire are plenty. When you throw them into the jungle, and you force them to come out with things that they can do, you would be amazed”.

Perspectives from academics and HRMs research question six indicate that approaches in teaching entrepreneurship promote the development of entrepreneurial capabilities in graduates.

4.6.3 Research Question Seven: To what Extent do Entrepreneurial Capabilities Affect Graduate Employability

The final research question sought to explore the influence of entrepreneurial capabilities on the employability of university graduates. Employability was measured in terms of students possessing the capabilities, that could position them to engage in employment activities. In analysing the effects of entrepreneurial capabilities on graduates' employability, the analysis was done in terms of graduates' ability to engage in either self-employment or paid employment. Various arguments raised by academics and human resource managers, are presented and analysed in Figures 4.20 and 4.21 that follow.

Effect of Entrepreneurial Capabilities on Graduate Employability: Insights from Academics

Academics argued that entrepreneurial capabilities have potential effects on the ability of graduates who read entrepreneurship education, to engage in entrepreneurial activities either as intrapreneurs or entrepreneurs. However, they were of the view that the ability of graduates to engage in an entrepreneurial activity (-ies), would depend on the entrepreneurial ecosystem. Figure 4.20 illustrates the perspectives of academics on the effects of entrepreneurial capabilities, on self-employment and paid employment.

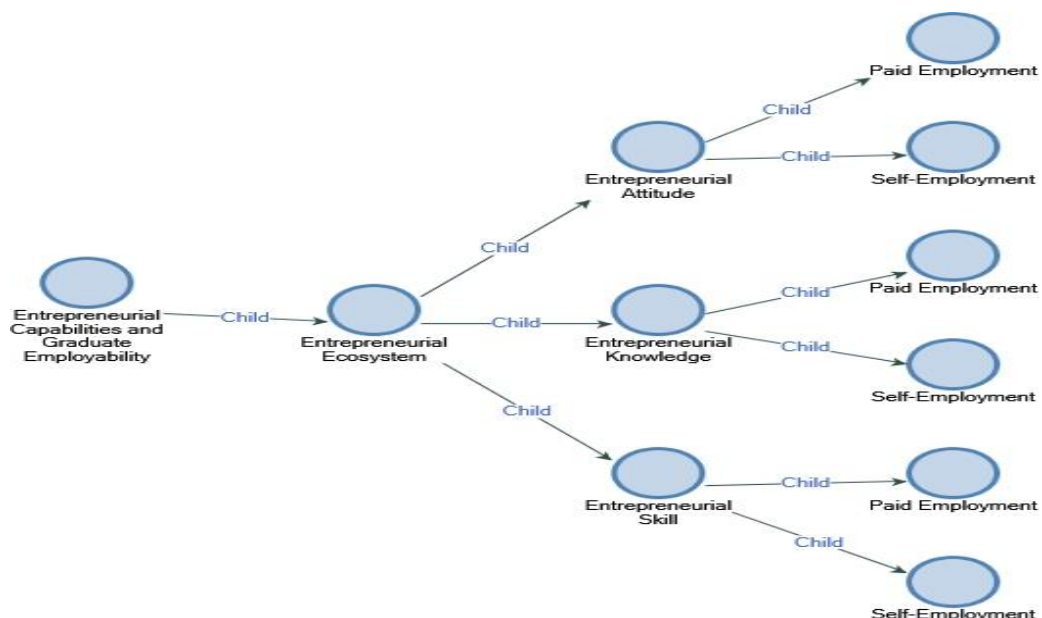


Figure 4.20: Perspectives of academics on the effects of entrepreneurial capabilities on graduates' employability.

Source: Own compilation

In analysing the effects of entrepreneurial capabilities on graduates' employability, lecturers raised the following points in support of their claims that entrepreneurial capabilities influence self-employment.

Lecturer 1 opined that:

"The entrepreneurial capabilities can easily help them [students] to set up their own businesses".

Lecturer 2 stated that:

"The students are positioned to create new ventures because of what they [students] acquire. The outcomes of [a] business plan competition are perfect examples of what they [students] are capable of doing".

Lecturer 5 also argued that:

"... the assumption is that the students are to be trained as job creators, and that is exactly what the students become".

The analysis of the arguments from academics, also indicated a positive effect of entrepreneurial capabilities, on students' engagement in paid employment. The arguments of academics were supported by these quotes:

Lecturer 4 emphasised that:

"The capabilities actually enable them to be employable, and to be able to employ themselves. The graduates are very employable because every organisation needs these entrepreneurial capabilities [that] these graduates possess".

Lecturer 7 argued that:

"The entrepreneurial capabilities that students acquire through entrepreneurship programmes place them above their counterparts or colleagues. They are [more] employable than those who don't read a course in entrepreneurship education".

Lecturer 8 also maintained that:

“Graduates who find themselves in organisations or institutions, have all the necessary competencies that they need to contribute meaningfully to the development of those organisations”.

Nevertheless, it was deduced from these interactions, that the entrepreneurial ecosystem plays a critical role in the use of entrepreneurial capabilities, either in paid employment or self-employment. This was, in particular, vivid in the case of paid employment, according to the academics involved in the study.

Lecturer 6 emphasised that:

“They [students] have the entrepreneurial competencies, so if the appropriate environments are provided, they would perform better than their colleagues. Where KPIs are given, their entrepreneurial competencies would assist them to perform way above their peers and competitors”.

Effects of Entrepreneurial Capabilities on Graduate Employability: Insights from HRMs

Subsequent analysis centred on the findings from the human resources managers' perspectives, regarding the effects of entrepreneurial capabilities on graduate employability, are presented below.

Human resources managers maintained that entrepreneurial capabilities facilitate both the intrapreneurial and entrepreneurial abilities of graduates in Ghana. These capabilities were seen as major drivers of entrepreneurial and intrapreneurial engagements among graduates, as presented in Figure 4.21.

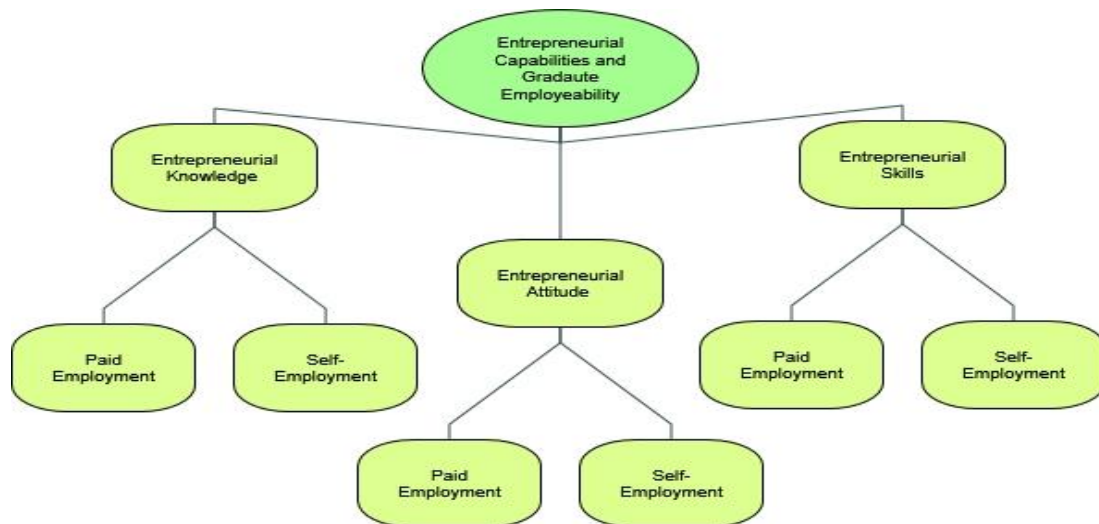


Figure 4.21: Effects of entrepreneurial capabilities on graduate employability from Human Resource Managers perspective
Source: Own compilation

The analysis of HRMs' perspectives on the positive effects of entrepreneurial capabilities on graduate employability, specifically in self-employment, were supported by the following statements.

HRM 6 maintained that:

"The graduates have all it takes to venture into self-employment because they have the capabilities".

HRM 9 was also of the opinion that:

"When you interact with the graduates, it is clear [that] they [students] can create for themselves, and even employ others because of the competencies they possess".

HRM 11 asserted that:

"The graduates are entrepreneurial-oriented, have enough entrepreneurial capabilities, and they will easily succeed, should they choose self-employment".

The analysis of the interactions with the human resources managers, revealed that entrepreneurial capabilities have positive effects on graduate employability, especially within the corporate world. These assertions by human resources managers are presented below.

HRM 1 underscored that:

“The students are very employable; they possess great entrepreneurial competencies, and as a state enterprise, their services are highly needed”.

HRM 3 was of the view that:

“Most of these individuals, who did their service with us, ... would have been retained if we had the opportunity”.

HRM 12 also argued that:

“These service guys can perform wherever they find themselves”.

It was revealed from the conversation that, although graduates were employable, the current situation made it difficult for government organisations to absorb them. Statements from human resource managers confirmed this.

HRM 1 affirmed that:

“The students are very employable; ... unfortunately, we don't have space for them”.

Buttressing the claim by HRM 1, HRM 3 noted:

“Some of these individuals who did their service with us, do have these competencies that promote productivity, and would have been retained if we had the opportunity”.

Results from research question seven indicate that both academics and HRMs agreed that entrepreneurial capabilities facilitate the development of graduate employability. However, the former expressed that the ability of graduates to engage in entrepreneurial activities is often influenced by the prevailing entrepreneurial ecosystem.

4.7 TEST OF HYPOTHESES FOR RESEARCH OBJECTIVES FIVE, SIX AND SEVEN

The study formulated and tested five hypotheses. Research objective five led to the formation of hypothesis H₁, while hypotheses H_{2a}, H_{2b}, and H_{2c} were meant to answer research objective six. On the other hand, hypothesis H₃ was formulated to answer

research question 7. Structural Equation Modelling (SEM) was adopted to test the hypotheses. These were formulated as follows:

Table 4.19: Research Objectives and Hypotheses

Research Objective	Hypothesis
RO5: To examine the effect of entrepreneurial activities on the development of entrepreneurial capabilities of graduates	H ₁ : Entrepreneurial activities in entrepreneurship education positively affect the development of entrepreneurial capabilities of graduates
RO6: To assess the effect of the approaches to teaching entrepreneurship on the entrepreneurial capabilities of graduates	H _{2a} : Education for entrepreneurship positively affects the development of entrepreneurial capabilities of graduates H _{2b} : Education about entrepreneurship positively affects the development of entrepreneurial capabilities of graduates H _{2c} : Education through entrepreneurship positively affects the development of entrepreneurial capabilities of graduates
RO 7: To assess the effect of entrepreneurial capabilities on graduate employability	H ₃ : Entrepreneurial capabilities positively affect employability of graduates

Source: Own Compilation

4.7.1 H₁: Entrepreneurial Activities in Entrepreneurship Education Positively Affect the Development of Entrepreneurial Capabilities of Graduates

The research hypothesis was meant to examine the effects of the various entrepreneurship activities, on the development of the entrepreneurial capabilities of graduates. The effects of the various activities were measured by questions 15, 16, and 17 of the questionnaire for graduates.

Assessment of the Measurement Model

The PLS-SEM analysis of the study, began by describing the measurement model results, followed by the structural model results. Metrics such as reliability, validity and multicollinearity, as well as structural model qualities, were presented and

analysed. Figure 4.22 below shows the exogenous and endogenous constructs, as well as their indicators.

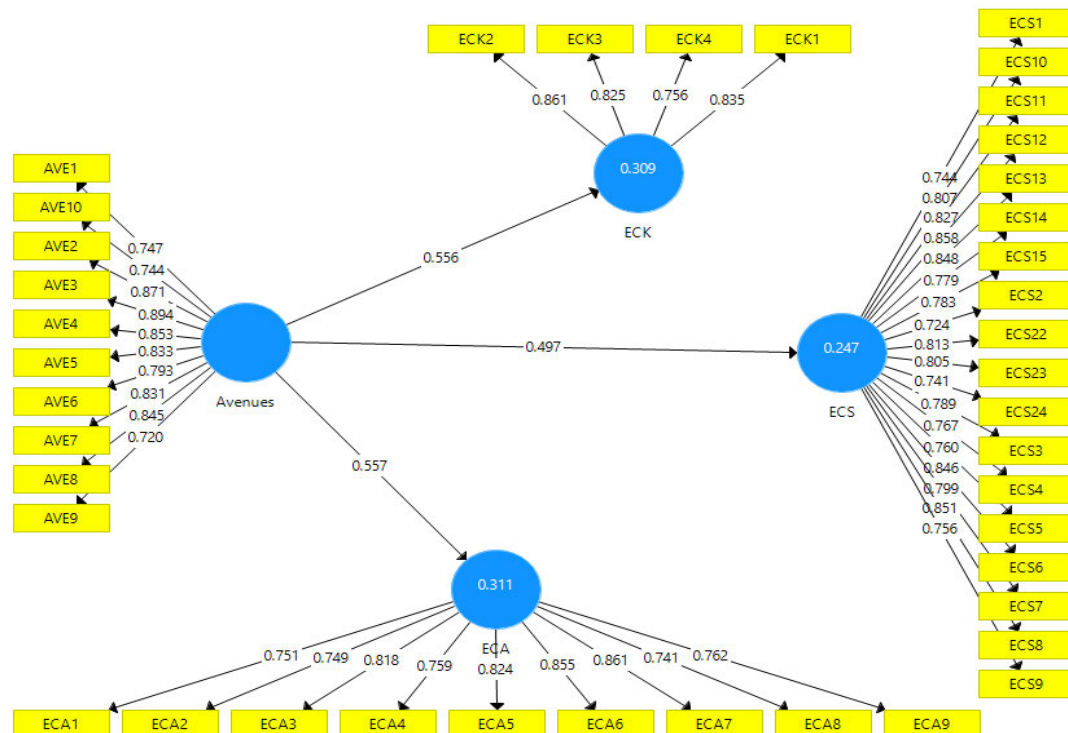


Figure 4.22: Graph for PLS-SEM Structural Model 1

Source: Own compilation

Figure 4.22 shows one (1) exogenous variable (Activities), and three (3) endogenous variables (ECK, ECS and ECA). Activities have ten (10) indicators (AVE1 to AVE10). ECK has four (4) indicators (ECK1 to ECK4). ECS has eighteen (18) indicators (ECS1, to ECS15, and ECS22 to ECS24). From Figure 4.23, the indicators with loadings of 0.7 and above were maintained, since they were essential in explaining their constructs.

Measurement Model Assessment

The study examined indicator reliability, internal consistency reliability, discriminant validity, and convergent validity, in order to assess the measurement model results.

Indicator Reliability

Indicator reliability shows that the aspect of an indicator's variance, which can be explained by its latent construct, should explain at least 50% of the indicator's

variance (Hair et al., 2019). Table 4.20 shows the values of the loading of each indicator to examine their reliability.

Table 4.20: Indicator Reliability

Latent Construct	Indicator	Loading	Squared Loading (Indicator Reliability)
ACTIVITES	AVE1	0.747	0.558
	AVE10	0.744	0.554
	AVE2	0.871	0.759
	AVE3	0.894	0.799
	AVE4	0.853	0.728
	AVE5	0.833	0.694
	AVE6	0.793	0.629
	AVE7	0.831	0.691
	AVE8	0.845	0.714
ECA	AVE9	0.720	0.518
	ECA1	0.751	0.564
	ECA2	0.749	0.562
	ECA3	0.818	0.670
	ECA4	0.759	0.577
	ECA5	0.824	0.680
	ECA6	0.855	0.731
	ECA7	0.861	0.742
	ECA8	0.741	0.549
ECK	ECA9	0.762	0.581
	ECK1	0.835	0.697
	ECK2	0.861	0.742
	ECK3	0.825	0.680
ECS	ECK4	0.756	0.572
	ECS1	0.744	0.554
	ECS10	0.807	0.651
	ECS11	0.827	0.684
	ECS12	0.858	0.736
	ECS13	0.848	0.719
	ECS14	0.779	0.607
	ECS15	0.783	0.613
	ECS2	0.724	0.524
	ECS22	0.813	0.661
	ECS23	0.805	0.649
	ECS24	0.741	0.549
	ECS3	0.789	0.622
	ECS4	0.767	0.589
	ECS5	0.760	0.578
	ECS6	0.846	0.716
	ECS7	0.799	0.638
	ECS8	0.851	0.725
	ECS9	0.756	0.571

Source: Own compilation

Values of 0.7 and higher are recommended, while those of 0.4 are accepted (Hair et al., 2019; Hulland, 1999). The minimum requirements also depict that the shared

variances among constructs and their indicators, are greater than measurement errors' variances. From Table 4.20, the values of the loadings of the indicators are between 0.720 and 0.894. Therefore, indicator reliability was achieved since the minimum threshold was met.

Internal Consistency Reliability

The study also measured internal consistency reliability, as recommended by Hair et al. (2019). Cronbach alpha and composite reliability values of the constructs, as shown in Table 4.21 below, were used to test and check internal consistency reliability. The internal consistency reliability is assessed by using Cronbach alpha, but in PLS-SEM, that tends to provide conservative measurements (Hair et al., 2019; Wong 2013). Items are not weighted when Cronbach's alpha is used. Therefore, it becomes a less precise way of checking reliability. On the other hand, with composite reliability based on the indicators' loadings, items are weighted and, therefore, reliability is greater than Cronbach's alpha (Hair et al., 2019). In assessing internal consistency reliability, composite reliability values are preferred to Cronbach's alpha (Hair et al., 2014; Hair et al., 2019). A composite reliability value of 0.7 or higher is recommended, when checking for internal consistency reliability, although values of 0.6 are acceptable for exploratory research. From Table 4.21, the values of composite reliability (CR) of all the constructs (0.891 to 0.969), are above the recommended threshold of 0.7.

Table 4.21: Construct Reliability and Validity

Constructs	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Activities	0.944	0.952	0.664
ECA	0.925	0.938	0.628
ECK	0.837	0.891	0.673
ECS	0.966	0.969	0.633

Source: Own compilation

Convergent Validity

The study checked convergent validity – the degree to which a study's variable(s) converge, to provide an explanation of the variance of studied indicators (Hair et al., 2017). The convergent validity in PLS-SEM is checked by the use of average variance extract (AVE) (Gotz et al., 2010; Hair et al., 2019). AVE comprises of the variance of

its items captured by the constructs or variables, relating to the whole amount of variance emanating from the measurement error (Gotz et al., 2010). An AVE value of 0.5 and less is not enough, as more variance is a consequence of the error variance than to the variance of the indicators. AVE values of 0.5 and greater are recommended, to indicate that the construct explains at least 50% of its indicators' variance, and to back the measurement of convergent validity (Bagozi & Yi, 1988; Hair et al., 2019). As shown in Table 4.21, convergent validity was achieved, given that the AVE values of the constructs (0.628 to 0.673) were greater than the recommended threshold of 0.5.

Discriminant Validity

The study also examined discriminant validity, which explains the degree to which a variable or variables in a model, are empirically distinguished from each other's constructs (Hair et al., 2019). The discriminant validity warrants that a study's latent constructs be independent of one another. Collinearity issues of a model could also be assessed through the use of discriminant validity. If the constructs have discriminant validity, they may not have collinearity issues at significant levels (Hair et al., 2017). In an attempt to achieve discriminant validity, a construct's factorial loadings are expected to be greater than the relationships among the constructs (Chin, 1998; Fornell & Larcker, 1981). Discriminant validity is achieved when the square root of each latent construct AVE, is higher than all correlated values of that variable, and of other variables (Fornell & Lacker, 1981).

Table 4.22: Discriminant Validity – Fornell-Larcker Criterion

	Activities/Avenues	ECA	ECK	ECS
Activities	0.815			
ECA	0.557	0.793		
ECK	0.556	0.739	0.820	
ECS	0.497	0.901	0.783	0.795

Source: Own compilation

As shown in Table 4.22 above, the factorial loadings of the constructs are higher than the other values of the correlations. This implies that each construct of the model is unique and, therefore, different from the other constructs, and so it can be concluded that discriminant validity was attained.

Structural Model Assessment

The study further examined the Variance Inflation Factor (VIF) to check the multicollinearity, coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2).

Multicollinearity

Multicollinearity was examined among the constructs in the model, by using the Variance Inflation Factor (VIF) values. The set of exogenous constructs in the model was checked for potential collinearity issues, to ascertain whether any of the constructs should be eliminated or merged, or whether a theory-based higher order model should be established (Hair et al., 2017; Wong, 2013). This assessment was done to check if the path coefficients were not biased, and to minimize the predictor constructs' degree of collinearity (Hair et al., 2019). VIF values were derived from the latent variable figures of the exogenous or independent constructs. VIF values which are greater than 5, reveal potential collinearity issues of the exogenous constructs. Potential collinearity issues can also occur with VIF values of 3 to 5 (Becker et al., 2018). The recommended VIF values are 3 and lower (Hair et al., 2019). From Table 4.23 below, VIF values are below 3, which fall within the recommended threshold. The level of collinearity was therefore acceptable.

Table 4.23: Multicollinearity among the Constructs

	ECA	ECK	ECS
Activities	1.000	1.000	1.000

Source: Own compilation

Coefficient of Determination (R^2)

The study examined the predictive relevance of the model, using the R^2 value of the endogenous construct, as shown in Table 4.24. The R^2 value checked the variance that is explained in the endogenous construct, and explains the explanatory power (Shmueli & Koppius, 2011). The R^2 is also known as the in-sample predictive power (Rigdon, 2016). It shows the combined effect of the exogenous or predictor constructs on the endogenous construct (Hair et al., 2014). The higher the number of predictor constructs in a model, the higher the values of R^2 and the greater the explanatory power. R^2 depicts a function of the number of predictor constructs (Hair et al., 2019).

Its values range between 0 and 1. R^2 values of 0.75, 0.50, and 0.25 indicate substantial, moderate, and weak explanatory powers, respectively (Hair et al., 2019).

Henseler et al. (2009) also recommended R^2 values of 0.67, 0.33, and 0.19 as substantial, moderate, and weak explanatory powers, respectively. The values of R^2 can also depend on the context of the study, since an R^2 value of 0.10 is considered satisfactory, for instance, for predicting stock returns (Raithel et al., 2012). According to Hair et al. (2019), a model overfits the data if the R^2 values are too high. This means the model is too complex, hence fitting the random noise in the sample, but not reflecting the population. R^2 values of 0.9 would not be surprising for a physical process that measures a model that is predictable. However, R^2 values of 0.9 in a concept that predicts peoples' perceptions, attitudes, and intentions, like in this study, would indicate overfit (Hair et al., 2019). The results in Table 4.24 reveal the coefficient of determination (R^2) for the latent construct. Based on Hair et al. (2019), the latent construct of activities weakly explains 31.1%, 30.9%, and 24.7% of the variance in ECA, ECK, and ECS, respectively.

Table 4.24: Coefficient of Determination and Assessment

Constructs	R^2	Assessment
Activities-ECA	0.311	Weak
Activities-ECK	0.309	Weak
Activities-ECS	0.247	Weak

Source: Own compilation

Effect Size (f^2)

This study used the effect size (f^2) to assess how the elimination of any predictor construct, would affect the endogenous construct's R^2 (Hair et al., 2019). The f^2 clarifies the degree to which an exogenous construct influences an endogenous construct's R^2 . It examines the strength of the relationships among the exogenous and endogenous constructs (Wong, 2013). Chin et al. (2003) opined that a study should not solely report the significance of relationships among variables, but should also include effect size among the variables. Effect size assists researchers in evaluating the overall contribution of a particular study. According to Cohen et al. (1997), and Wong (2013), effect size values greater than 0.02, 0.15, and 0.35 indicate small,

medium or moderate, and large effect sizes, respectively. Table 4.25 below reveals the effect sizes of the model's structural path. From Table 4.25, activities have a large effect size on ECA and ECK, but a moderate effect size on ECS.

Table 4.25: Effect Size (f^2)

Constructs	f^2	Assessment
Activities-ECA	0.450	Large
Activities-ECK	0.447	Large
Activities –ECS	0.329	Moderate

Source: Own compilation

Predictive Relevance (Q^2)

In addition to the values of R^2 , an alternative approach to ascertain the model's predictive accuracy, is through the measurement of the Q^2 values (Chin, 2010). Q^2 measures the predictive validity of a model. The Q^2 depends on the blindfolding process, which eliminates single points found in the data matrix, imputes the eliminated points (including the mean), and evaluates the parameters of the model (Rigdon, 2014; Sarstedt et al., 2014). Q^2 measures the out-of-sample prediction, as well as the in-sample explanatory power, put together from the sample prediction (Shmueli et al., 2016; Sarstedt et al., 2017).

Using these measures as the input, the blindfolding process predetermines the data points which were eliminated within the constructs. Greater values of Q^2 show greater predictive accuracy, resulting from small differences of the original and predicted values (Hair et al., 2019). Values of Q^2 should be greater than 0, so that a particular dependent variable can reveal the predictive accuracy of the model for that particular dependent variable (Hair et al., 2019). Values greater than 0 indicate small predictive relevance, 0.25 indicates medium predictive relevance, and 0.5 indicates large predictive relevance of the model (Hair et al., 2019). Wong (2013) also suggested that Q^2 values of 0.02, 0.15, and 0.35 show small, medium and large predictive relevance, respectively. Based on the criterion of Hair et al. (2019), Table 4.26 shows the predictive relevance, Q^2 value, of the model. The value is greater than zero (0), which shows that the model has predictive relevance.

Table 4.26: Predictive Relevance (Q^2)

Constructs	Q^2	Assessment
ECA	0.185	Small
ECK	0.202	Small
ECS	0.144	Small

Source: Own compilation

Path Coefficient and their Significance

The measurement and structural model assessments, so far, have met the criteria for PLS-SEM. The study, therefore, went on to assess the hypotheses by using the PLS-SEM. The hypotheses were assessed by examining the strength and direction of relationships between study variables, using the path coefficient and the t-statistics. PLS-SEM does not interpret the p-values, but rather the t-statistics (Hair et al., 2014). If the t-statistic values are greater than 1.96, it implies that the variables are significantly related (Wong, 2013; Hair et al., 2019). The results of the examination of the hypotheses are presented in Table 4.27 below.

Table 4.27: Path Coefficients and Significance

Structural Path	Path Coefficient (β)	T-statistic	P-values	Supported? ($p < 0.05$)
Activities -> ECA	0.557	6.750	0.000	Supported
Activities -> ECK	0.556	6.617	0.000	Supported
Activities -> ECS	0.497	6.529	0.000	Supported

Source: Own compilation

Table 4.27 indicates that the activities in entrepreneurship education, positively and significantly influenced the development of all the components of entrepreneurial capabilities. Therefore, the hypothesis that entrepreneurial activities in EE positively affected the development of graduates' entrepreneurial capabilities, was accepted.

4.7.2 H₂: Entrepreneurship Education Positively Affects the Development of the Entrepreneurial Capabilities of Graduates

The research hypothesis sought to determine the various effects of the approaches to entrepreneurship education, on the development of the entrepreneurial capacities among university graduates. Consequently, the following hypotheses were formulated:

H_{2a}: Education for entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates

H_{2b}: Education about entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates

H_{2c}: Education through entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates

As portrayed in Figure 4.23 that follows, the exogenous variables had three indicators each, consisting of Education about Entrepreneurship (EAE1-3), Education for Entrepreneurship (EFE1-3), and Education through Entrepreneurship (ETE1-3), while the endogenous variable consisted of Entrepreneurial Skills (ECS1-15, ECS22-24). The latent variables were used to hypothesise two (2a) paths. The path hypotheses predict a positive relationship between the exogenous variables and the endogenous variable. The indicators of each construct were evaluated to assess the extent to which they measured the constructs.

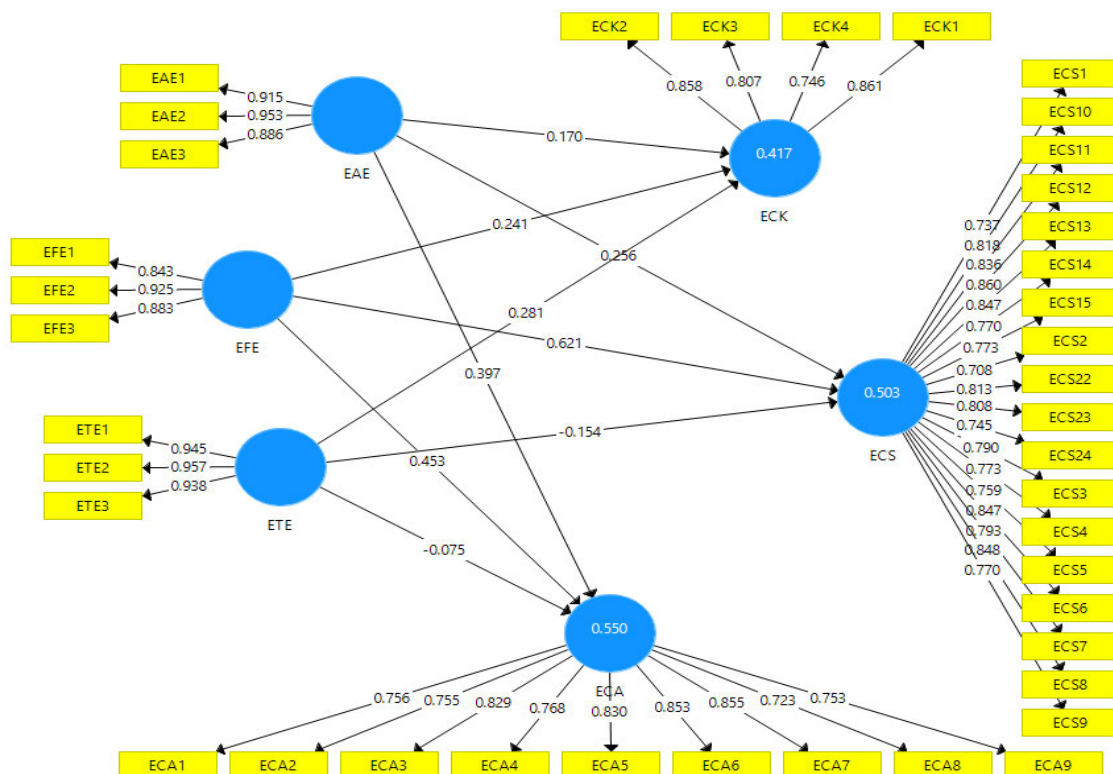


Figure 4.23: Graph for PLS-SEM Structural Model 2

Source: Own compilation

According to Hair et al. (2020), indicators with thresholds less than 0.70 cannot measure a study's constructs. This section specified the model structure of the exogenous and endogenous variables of the study, with their corresponding indicators. The exogenous variables had three indicators each and they consisted of Education about Entrepreneurship (EAE1-3), Education for Entrepreneurship (EFE1-3) and Education through Entrepreneurship (ETE1-3), and the endogenous variables had two indicators, Entrepreneurial Attitude (ECA1-9) and Entrepreneurial Knowledge (ECK1-4). On the other hand, the indicators of each construct were evaluated to assess the extent to which they measured the constructs. After an assessment, the model was presented as in Figure 4.23, showing some of the item loadings below the threshold 0.70, and so it can be concluded that indicators with thresholds lower than 0.70, could not measure the study's constructs.

Measurement Model Assessment

The results of the internal consistency reliability (indicator reliability (IR), construct reliability), convergent validity (average variance extracted) and multicollinearity (Inner VIF values) are presented in Table 4.28 below.

Table 4.28: Assessment of Indicator and Construct Reliability and Validity

Items	rho_A	CR	AVE	Inner VIF values
EAE	0.925	0.942	0.844	2.650
EFE	0.862	0.915	0.782	5.248
ETE	0.949	0.963	0.896	4.070
ECS	0.969	0.969	0.632	
ECA	0.929	0.938	0.628	
ECK	0.860	0.890	0.671	
Items	rho_A	CR	AVE	Inner VIF values

Note: IR (rho_A) – indicator reliability; CR – construct reliability; AVE – convergent validity

Source: Own compilation

Internal Consistency Reliability

Henseler et al. (2015), and Schuberth et al. (2020) argued that the threshold value indicates that the variance of the measurement error, is less than the shared variance between a construct and its indicator, and as such, the IR is an effective tool for assessing uni-dimensionality of a set of scale items, which is obtained using the Cronbach alpha (α) and rho_A (ρ) results.

From Table 4.28, the IR result of each latent variable based on the α , indicated the following: EAE (0.925); EFE (0.862); ETE (0.949); and ECS (0.969). From Table 4.28, the study revealed that the mean values of the latent variables were > 0.70 , which met the acceptability criterion, thus indicating that they were reliable for the model. Henseler et al. (2015) again suggested that ρ_A can be used to assess indicator reliability, and further suggested that $\rho_A (q)$ scores should be > 0.70 . However, the q results ranged from 0.862 to 0.969, which met the acceptable criterion.

Table 4.28 also presented the result of the construct reliability of the study. As explained by Nawanir et al. (2018), construct reliability (CR) examines the extent to which indicators, when put together, adequately measure a construct. Composite reliability is used to obtain the CR results, and the general rule requires that the CR value should be 0.70 or higher (Peterson et al., 2020). Table 4.28 showed that the CR values of the study are: EAE (0.942); EFE (0.915); ETE (0.963); and ECS (0.969). This is evidence that the CR values were > 0.70 , and implies that the indicators had positive significant relationships with their respective constructs.

Convergent Validity

As recommended by Hilkenmeier et al. (2020), AVE should have a minimum threshold of 0.5 for a construct to indicate convergent validity. From Table 4.28, the AVE values of latent variables were: EAE (0.844), EFE (0.782), ETE (0.896), and ECS (0.632). This indicates that the validity of the measurement scale was convergent.

Multicollinearity among Exogenous Variables

The study again assessed the multicollinearity among exogenous variables, using the inner and outer variable inflation factor (VIF) values. In assessing multicollinearity, Hair et al. (2020) argue that there are no biases with the path coefficients, while minimising the significant levels of collinearity among the predictor constructs. According to Ahmad et al. (2006), and Pallant and Manuel (2007), VIF values should be > 10 , which indicates multicollinearity among the independent variables, and helps to develop a good PLS-SEM model. The inner VIF from Table 4.28 are: EAE = 2.650),

EFE = 5.248), and ETE = 4.070). This indicates the absence of multicollinearity between the exogenous variables.

Table 4.29: Multicollinearity among the Constructs

Indicators	VIF
EAE1	4.171
EAE2	5.025
EAE3	2.272
ECA1	2.514
ECA2	2.726
ECA3	3.575
ECA4	3.405
ECA5	3.338
ECA6	3.532
ECA7	5.331
ECA8	2.803
ECA9	1.992
ECK2	2.262
ECK3	1.966
ECK4	1.532
ECS1	4.093
ECS10	4.720
ECS11	5.919
ECS12	5.688

Source: Own compilation

Hair et al. (2020) suggested that the VIF values of each construct should be less than 5.0. Table 4.29 above shows the respective indicators' outer VIF values, which ranged from 1.532 to 4.720, indicating they fall within the <5.0 cut-off point, except for: EAE 2 (5.025); ECA 7 (5.331); ECS 11 (5.919); and ECS 12 (5.688). Furthermore, the result indicates that there is no multicollinearity among the exogenous variables' indicators.

Discriminant Validity

In testing the discriminant validity, the Fornell and Larcker (1981) criterion and the Heterotrait-Monotrait (HTMT) ratio are used. Discriminant validity seeks to ensure that latent variables are independent of one another, and helps to structural model for issues of collinearity (Fornell & Larcker, 1981; Cheung & Wang, 2017). However, in

line with the suggestion by Fornell and Larcker (1981), as a general principle in determining discriminant validity, the factorial loadings in their respective constructs should be larger than other correlation values among the latent variables. The result was presented in Table 4.30.

Table 4.30: Discriminant validity using Fornell-Larcker criterion

	EAE	ECA	ECK	ECS	EFE	ETE
EAE	0.919					
ECA	0.700	0.793				
ECK	0.560	0.741	0.819			
ECS	0.635	0.903	0.776	0.795		
EFE	0.787	0.700	0.619	0.689	0.884	
ETE	0.713	0.601	0.612	0.567	0.867	0.947

Source: Own compilation

From Table 4.30 above, the factor loadings of all the constructs are higher than the other correlation values among the latent variables. This means that each latent variable is truly different from the others. However, there is a clear indication that discriminant validity, as proposed by Fornell and Larcker (1981), has been satisfied in the study. Also, the study used the Heterotrait-Monotrait ratio to test discriminant validity. According to Araújo et al. (2020), the HTMT ratio has been generally accepted in assessing relationships among latent variables. This is because the Heterotrait-Monotrait ratio shows superior performance scenarios, as compared to the Fornell-Larcker criterion and cross-loadings, since it can detect a lack of discriminant validity in common research. The HTMT ratio results are presented in Table 4.31 below.

Table 4.31: Heterotrait-Monotrait Ratio

	EAE	ECA	ECK	ECS	EFE	ETE
EAE						
ECA	0.751					
ECK	0.618	0.838				
ECS	0.657	0.950	0.873			
EFE	0.884	0.780	0.718	0.741		
ETE	0.766	0.639	0.670	0.581	0.966	

Source: Own compilation

According to Ab Hamid et al. (2017), to obtain discriminant validity, the Heterotrait-Monotrait ratio values should be <0.85 . From Table 4.31, all the HTMT ratio values were <0.85 . This satisfied the HTMT thumb rule, except for ECA and EFE.

Significance of Path Coefficients

The study tested for three (3) hypotheses, after assessing the measurement model, to ensure it met the PLS-SEM criterion. These hypotheses were concerned with examining the effects of the different approaches to entrepreneurship education on the entrepreneurial capabilities of graduates. The path coefficient (β) was used to assess the direction of the tested hypotheses as well as obtain the significance levels with t-statistics. The results are presented in Table 4.32.

Table 4.32: Results of Structural Equation Modelling and Hypothesis Testing

I.V	D.V	(β)	t-stats	p-values		Decision
EAE	ECS	0.256	1.647	0.050	$P < 0.05$	Not Supported
EFE	ECS	0.621	2.630	0.004	$P < 0.05$	Supported
ETE	ECS	-0.154	0.685	0.247	$P > 0.05$	Not Supported
EAE	ECA	0.397	1.989	0.024	$P < 0.05$	Supported
EFE	ECA	0.453	1.976	0.036	$P < 0.05$	Supported
ETE	ECA	-0.075	0.304	0.381	$P > 0.05$	Not Supported
EAE	ECK	0.170	0.871	0.192	$P > 0.05$	Not Supported
EFE	ECK	0.241	0.871	0.192	$P > 0.05$	Not supported
ETE	ECK	0.281	1.262	0.104	$P > 0.05$	Not Supported

Source: Own compilation

Hair et al. (2020) prescribed that t-stat values should be greater than 1.96, and that t-stat values above 1.96 correspond to p-values < 0.05 and vice versa. Therefore, the decision rule is that, the null hypothesis (H_0) is rejected when the t-stat is < 1.96 , while one fails to reject the H_0 when the t-stat is > 1.96 .

The second hypothesis was formulated in three parts as follows:

H_{2a}: Education for entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates.

H_{2b}: Education about entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates.

H_{2c}: Education through entrepreneurship positively affects the development of the entrepreneurial capabilities of graduates.

From Table 4.32, EAE had a positive but insignificant relationship with ECS (Entrepreneurial Skills) ($\beta = 0.256$; $t = 1.647$; $p = 0.05$). This implies that EAE has an insignificant influence on Entrepreneurial Skills, hence the hypothesis was rejected. EFE had a positive and significant relationship with ECS ($\beta = 0.621$; $t = 2.630$; $p < 0.05$), hence the hypothesis was accepted. However, ETE revealed a negative and insignificant relationship with ECS ($\beta = -0.154$; $t = 0.685$; $p > 0.05$), and so the hypothesis was rejected.

EAE and ECA had a positive and significant relationship ($\beta = 0.397$; $t = 1.989$; $p < 0.05$), hence the hypothesis was accepted. Again, since EFE positively and significantly influences ECA ($\beta = 0.453$; $t = 1.976$; $p < 0.05$), the hypothesis was accepted. ETE negatively and insignificantly affects ECA ($\beta = -0.075$; $t = 0.304$; $p > 0.05$), hence the hypothesis was rejected. Though not significant, EAE positively affects ECK ($\beta = 0.170$; $t = 0.871$; $p > 0.05$). EFE also positively influences ECK, but not significantly ($\beta = 0.241$; $t = 0.871$; $p > 0.05$). ETE had a positive but insignificant relationship with ECK (Entrepreneurial Knowledge) ($\beta = 0.281$; $t = 1.262$; $p > 0.05$).

Explanation of Endogenous Variable Variance

This section reported on the PLS-SEM estimation for the predictive accuracy of the model, using the coefficient of determination (R^2). Other relevant estimations, including the effect size (f^2), predictive relevance (Q^2) using the Stone-Giesser's test criterion, and relative impact of the model (q^2), were also reported. The results are presented in Table 4.33.

Table 4.33: Explanation of Endogenous Variable Variance

L.V	R ²	f ²	Q ²
EAE		0.132; 0.019; 0.050	0.637
ECA	0.550		0.536
ECK	0.417		0.447
ECS	0.503		0.580
EFE		0.087; 0.019; 0.148	0.529
ETE		0.003; 0.033; 0.012	0.727

Note: L.V. = latent variable, R² = R squared (coefficient of determination), f² = effect size, Q² = predictive relevance

Source: Own compilation

In relation to the R² results in Table 4.33, this section discusses the predictive accuracy of the model. According to Hair et al. (2020), R² explained the composite effect of exogenous variables (EAE, EFE, and ETE), and the variation in the dependent variable, caused by the independent variables. However, Table 4.33 revealed that the endogenous latent variables (ECA, ECK, and ECS) had a coefficient of determination, R², of 0.550, 0.417 and 0.503, respectively. This implies that the three exogenous variables (ECA, ECK, and ECS) explain a 55.0%, 41.7%, and 50.3% variation in the EAE, EFE, and ETE, respectively.

Effect Size (f²)

The study assessed the effect size (f²) of each exogenous variable using Cohen's (1988) impact indicator criterion, where values of 0.35, 0.15, and 0.02 represent large, medium, and small effect sizes, respectively. Table 4.33 revealed that for EAE, f²=0.132, 0.019, and 0.050; for EFE, f²=0.087, 0.019, and 0.148; and for ETE, f²=0.003, 0.033, and 0.012.

Predictive Relevance (Q²)

The study assessed the predictive relevance (Q²) of the predictor exogenous latent variables, using Stone-Geisser's Q² test. Predictive relevance is assessed by omitting part of the data matrix, estimating the model, and predicting the omitted part, using the estimates and the principle that Q² value > 0 for a particular exogenous variable (Henseler et al., 2015). Henseler et al. (2015) further suggested that Q² values of 0.2 to 0.14 represent a weak effect, Q² values of 0.15 to 0.34 represent a moderate effect,

and Q^2 values of 0.35 or more represent a strong effect. As shown in Table 4.33, the Q^2 values were (EAE=0.637; ECA=0.536; ECK=0.447; ECS=0.580; EFE= 0.529; and ETE=0.727). This implied that all the exogenous variables highly predicted the model.

5.7.3 H_3 : Entrepreneurial Capabilities Positively Affect the Employability of Graduates

Research hypothesis seven was meant to assess the effect of entrepreneurial capabilities on graduates' employability.

Assessment of the Measurement Model

The study's hypothesis three was also analysed using the PLS-SEM technique. To achieve the goal of this analytical tool, the study first assessed the PLS-SEM by reporting the following: item loadings, indicator reliability (IR), construct reliability (CR), convergent validity (average variance extracted), multicollinearity (VIF), and discriminant validity. These model qualities are first assessed to gain meaning from the model's results (Ringle et al., 2011). The final model is presented as Figure 4.24

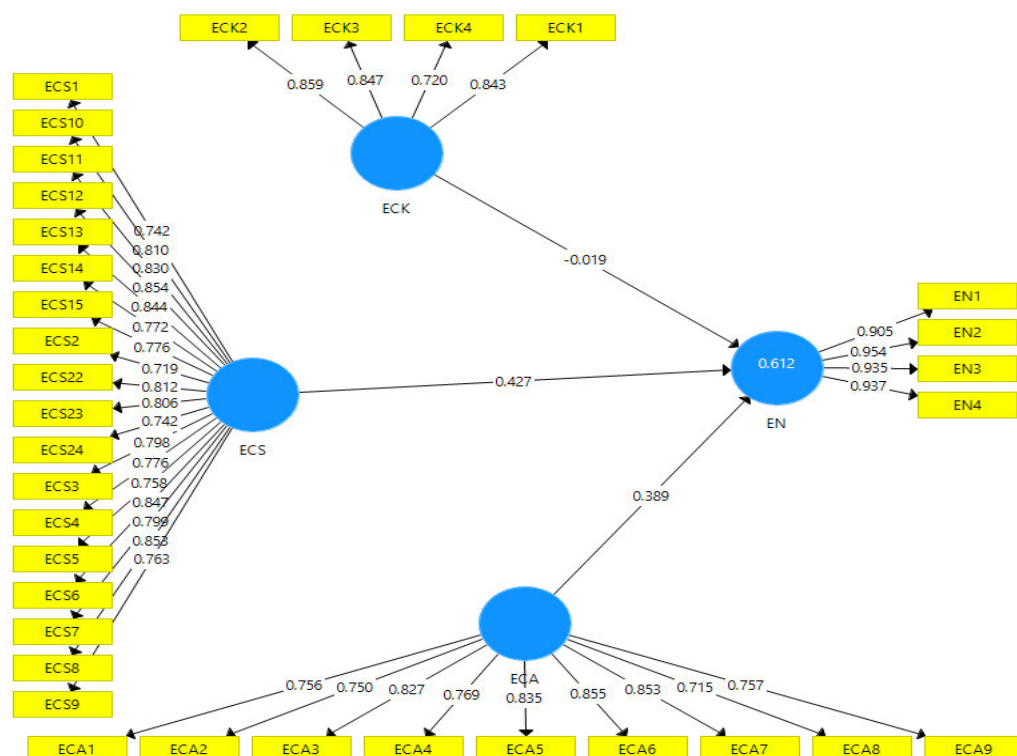


Figure 4.24: Graph for PLS-SEM Structural Model 3

Source: Own compilation

It is evident from Figure 4.24, that all the item loadings of each construct were > 0.70 , indicating that they are true measures of their respective constructs within the study area. More precisely, entrepreneurial knowledge (ECK) had four-item loadings (i.e., ECK1, ECK2, ECK3, and ECK4) with each item having a value > 0.70 . Also, entrepreneurial skills (ECS) had a minimum item loading of 0.719 with a maximum loading of 0.854, indicating that the remaining items are true measures of ECS. In terms of entrepreneurial attitude (ECA), all the remaining item loadings were > 0.70 , and finally, graduate employability (EN) had a minimum item loading of 0.905 (i.e., EN1) with the highest loading of 0.954 (i.e., EN2). These item loadings provide clear indications that the remaining items truly measure their constructs.

The results of the model qualities, in terms of indicator reliability (IR), construct reliability (CR), convergent validity and multicollinearity (Inner VIF values), are presented in Table 4.34 that follows. The indicator reliability was first presented to describe an indicator's degree of variation, which can be explained by its latent variable (Hair et al., 2014). Hair et al. (2014) argue that, for indicator reliability to exist, the threshold of an indicator should be > 0.70 . This result indicates that IR is an appropriate tool for determining the uni-dimensionality of a set of scale items, and is determined using the rho_A (q) output.

Table 4.34: Assessment of Indicator and Construct Reliability and Validity

Items	IR	CR	CV	Inner VIF Values
ECA	0.931	0.938	0.628	2.147
ECK	0.860	0.890	0.671	2.620
ECS	0.967	0.969	0.633	2.401
EN	0.952	0.964	0.870	

Source: Own compilation

Table 4.34 presents the results of the indicator reliability (IR) using the rho_A (q) output. The output revealed the following: ECA = 0.931); ECK = 0.860); ECS = 0.967); and EN = 0.952). These are clear indications that the q thresholds of the constructs under study were > 0.70 ; thus, they met the acceptability criterion and are, therefore, considered as reliable for the model. It is important to note that the rho_A (q) output was preferred over the Cronbach Alpha for describing IR, because the

former shows a much more accurate and robust measure of IR, in line with the suggestion by Henseler et al. (2016) and Hair et al. (2014).

Table 4.34 also presented the model's construct reliability, using the composite reliability score as its measure. Hair et al. (2014) suggested that composite reliability provides a better assessment of how indicator items measure a given construct in a model. According to Ringle et al. (2012), CR is effective in ascertaining the degree to which a particular construct is well measured by the combination of its indicator items. Thus, for CR to exist, all the indicator items assigned to a construct, should have a strong mutual association among them (Bagozzi & Yi, 1988). Scholars (Hair et al., 2012; Ringle et al., 2012) suggest that each threshold should be ≥ 0.7 for construct reliability to exist. It can be deduced that all the CR thresholds of each construct met the acceptability criteria (> 0.70), indicating that the assigned indicator items have strong mutual associations within their assigned constructs.

Table 4.34 further shows that all the AVE scores were > 0.50 with ECA = 0.628), ECK = 0.671), ECS = 0.633), and EN = 0.871), respectively. The results are clear indications that the measurement scale's validity was convergent.

In order to check for possible multicollinearity, the inner variable inflation factor (VIF) values were also reported. According to Hair et al. (2014), multicollinearity diagnostics are often evaluated, so that the path coefficients are devoid of biases, as the significant levels of collinearity among the predictor constructs are reduced. The principle is that the VIF values should be < 10 , to indicate the absence of multicollinearity among the predictor variables (Pallant & Manuel, 2007). From Table 4.34, ECA (2.147), ECK (2.620), and ECS (2.401) represented the inner VIF values of the predictor variables. These are clear indications of the fact that there is no multicollinearity among the study's predictor constructs.

The study further tested for the discriminant validity to determine the model's quality. According to Hair et al. (2011), the Heterotrait-Monotrait (HTMT) ratio provides a more robust measure of discriminant validity, as compared to the Fornell and

Larcker's (1981) criterion and cross-loadings. Sarstedt et al. (2014) also suggested that the HTMT ratio is considered as a generally accepted criterion for assessing relationships among latent variables. Table 4.35 below presents the outputs of the HTMT ratio.

Table 4.35: Heterotrait-Monotrait (HTMT) Ratio

	ECA	ECK	ECS	EN
ECA				
ECK	0.838			
ECS	0.750	0.873		
EN	0.803	0.663	0.793	

Source: Own compilation

The general principle is that the HTMT values (correlation values among the latent variables) should be < 0.90 , in order to achieve discriminant validity (Wetzels et al., 2009). It can be deduced from the table that, all the constructs had values below HTMT of 0.90. The result is a clear indication that the constructs are truly and accurately distinct from each other.

Result of Structural Equation Modelling and Hypothesis Three Testing

After assessment of the PLS-SEM's model, the result of the study's hypothesis three was presented. The study hypothesised that entrepreneurial capabilities positively affect graduate employability. To achieve this, the study specifically tested whether the dimensions of entrepreneurial capabilities', comprising entrepreneurial skills (ECS), entrepreneurial knowledge (ECK), and entrepreneurial attitude (ECA), positively affect employer needs (EN). The hypotheses were tested by assessing the direction and strength using the path coefficient (β), and the level of significance with t-statistics obtained through 5000 bootstraps, as suggested by Hair et al. (2014).

The results of the hypotheses tested using the PLS-SEM appear in Table 4.36 below.

Table 4.36: Result of Structural Equation Modelling and Hypothesis Testing

I.V	D.V	(β)	t-stats	p-values		Decision
ECA	EN	0.389	1.981	0.040	$P < 0.05$	Supported
ECK	EN	-0.019	0.137	0.446	$P > 0.05$	Not supported
ECS	EN	0.427	1.970	0.045	$P < 0.05$	Supported

Source: Own compilation

It can, therefore, be deduced that the p-value of ECA was $0.040 < 0.05$, and the t-statistics was $1.981 > 1.96$, indicating that there is a significant relationship between ECA and EN. Thus, the study's hypothesis that ECA positively affects EN, was supported. This result produced a β of 0.389, implying that for any unit increase in ECA, EN significantly increases by 38.9%. This is an indication that ECA plays a significant positive and moderate role in improving EN. Therefore, entrepreneurial capabilities are crucial in promoting the employability of graduates, within the area under study. However, the study rejected the hypothesis that entrepreneurial knowledge significantly affects graduate employability. This is because the model revealed a p-value of 0.446, which is obviously > 0.050 . The result means that entrepreneurial knowledge does not play a statistically significant role in the employability of graduates.

Finally, the study hypothesised that entrepreneurial capabilities, in terms of entrepreneurial skills, positively affect graduate employability. This hypothesis was supported with a p-value of $0.045 < 0.050$. The result statistically indicates that, for any unit increase in entrepreneurial skills, graduate employability also significantly improves. With a β of 0.427, the result indicates that entrepreneurial capabilities, in terms of entrepreneurial skills, perform a moderate significant role in promoting graduates' employability. As such, for graduates to become employable, they need to build their entrepreneurial capabilities in terms of skills acquisition and development.

Explanation of Target Endogenous Variable Variance

The PLS-SEM estimation for the predictive accuracy of the model, using the coefficient of determination (R^2), was reported in this section. Also, other relevant

estimations, including effect size (f^2) and predictive relevance (Q^2) using Stone-Giesser's test criterion, were reported. Hair et al. (2011) explained that R^2 indicates the combined effect of the exogenous variables (ECA, ECK, and ECS) on the endogenous variable (EN). Also, R^2 explains the variation in the dependent variable (EN), which is linearly accounted for by the independent variables (ECA, ECS, and ECK) (Chuan, & Penyelidikan, 2006). Using Henseler et al.'s (2009) criterion, exogenous variables in the inner path with R^2 results > 0.67 , $0.67 > p > 0.29$, and < 0.29 , imply that the model is substantial, moderate, and weak, respectively. The results are presented in Table 4.37 below.

Table 4.37: Explanation of Target Endogenous Variable Variance

L.V	R^2	f^2	Q^2
ECA		0.070	
ECK		0.000	
ECS		0.073	
EN	0.612		0.519

Note: L.V. = latent variable, R^2 = R squared, f^2 = effect size, Q^2 = predictive relevance

Source: Own compilation

From Table 4.37, the result of the R^2 shows that a combination of the three dimensions of entrepreneurial capabilities, comprising ECK, ECA, and ECS, linearly account for about 61.2% of change in employability (EN). This means that these dimensions statistically account for about 61.2% of the variation in EN. Thus, for any statistical variation in EN, the three key dimensions of ECC, comprising ECK, ECS, and ECA, combine to statistically contribute moderately to such change. Therefore, the three exogenous variables, notably entrepreneurial knowledge, entrepreneurial skills, and entrepreneurial abilities, statistically combine to cause about 61.2% of the change in the employability of graduates. It can, therefore, be argued that more attention needs to be paid to improving the entrepreneurial capabilities of graduates.

Also, the effect size (f^2) of each exogenous variable was assessed using Cohen's (1988) impact indicator criterion, with values 0.35 (large), 0.15 (medium), and 0.02 (small). It is evident that only entrepreneurial skills (i.e., 0.073) and entrepreneurial abilities (i.e., 0.070), had medium significant impacts on graduate employability.

However, entrepreneurial knowledge had absolutely no effect on graduate employability, with f^2 of 0.000. This result means that entrepreneurial knowledge does not statistically improve entrepreneurial capabilities, and subsequently has no impact on graduate employability. This result could be a consequence of ECK having no significant effect on graduate employability.

Finally, the predictive relevance of the predictor exogenous latent variables was also assessed, using the Stone-Geisser's Q^2 test. The study produced a Q^2 of 0.519, indicating that the exogenous variables combined to strongly predict the model. This implies that entrepreneurial capabilities can strongly predict any possible change in graduate employability. Simply put, for any likely change in graduate employability, entrepreneurial capabilities comprising entrepreneurial skills, knowledge, and attitude can strongly predict such a change, hence the hypothesis was accepted.

4.8 DISCUSSION OF RESULTS

The focus of this section is to discuss the research results in line with the research objectives.

4.8.1 Research Objective One: To Determine the Entrepreneurial Capabilities Gained by Graduates Through Entrepreneurship Education

The research findings indicated that most of the variables under entrepreneurial knowledge, skills, and attitude, were considered as entrepreneurial capabilities gained by graduates, after their participation in entrepreneurship courses. These results are analysed from Tables 4.11 to 4.13 of the quantitative analysis, as well as Figures 4.6 to 4.11 of the qualitative analysis, as summarised in Table 4.38.

Table 4.38: Summary of Quantitative Findings for Research Objective One

Table/Figure	Heading	Results
Table 4.11	Descriptive Statistics - Level of Entrepreneurial Capabilities (Knowledge)	All the dimensions of entrepreneurial capabilities were considered to be acquired as a result of participation in entrepreneurship education.
Table 4.12	Level of Entrepreneurial Capabilities (Skills)	
Table 4.13	Level of Entrepreneurial Capabilities (Attitude)	
Figure 4.6	Entrepreneurial Knowledge from Perspective of Academics	All variables under entrepreneurial knowledge were ranked either as very important or important.
Figure 4.7	Entrepreneurial Skills from Academics' Perspective	All variables of entrepreneurial skills were considered as skills that are acquired from participation in entrepreneurship education.
Figure 4.8	Entrepreneurial Attitudes Expected by Academics	All the dimensions of entrepreneurial attitudes were considered as gained by students after participating in entrepreneurship education.
Figure 4.9	Entrepreneurial Knowledge from the Viewpoint of HRMs	All the dimensions of entrepreneurial knowledge were considered as capabilities that students acquire from participating in entrepreneurship education, except for imagination.
Figure 4.10	Entrepreneurial Skills Gained by Graduates from the Perspective of HRMs	All the variables were seen as capabilities acquired from participating in entrepreneurship education.
Figure 4.11	Entrepreneurial Attitude Gained by Graduates from HRMs' Perspective	All the dimensions of entrepreneurial attitude were accepted, except for entrepreneurial identity.

Source: Own compilation

The findings, therefore, revealed some important insight that could be considered as entrepreneurial capabilities or graduate employability indicators. The findings from the qualitative analysis also buttressed the argument by graduates who had the opportunity to read entrepreneurship education. All the dimensions under each of the entrepreneurial capabilities, were seen as either important or very important capabilities that graduates acquire from participating in entrepreneurship education. The findings corroborated the results of prior studies, which argued that graduates gain a substantial depth of entrepreneurial capabilities after their participation in an entrepreneurship course (Oboreh & Nneba, 2019; Adeyemo et al., 2021). The findings also supported the position of the advocates of the entrepreneurial human capital

theory, namely that with the right investment in education, an individual is positioned to develop relevant capabilities and is likely to enjoy great returns (Becker, 1975; Thomas, 2011; Kozlinka, 2016).

4.8.2 Research Objective Two: To Analyse the Relevance of Entrepreneurial Capabilities to Organisations

The findings are discussed in line with the relevance of entrepreneurial capabilities to an organisation's competitive advantage, promotion of successful performance outcomes in business growth, survival and sustainability, employee performance, as well as resource mobilisation and utilisation.

The results revealed that the entrepreneurial capabilities possessed by graduates were relevant to the needs of employers, especially in relation to the mobilisation and utilization of resources, promotion of employee performance, promotion of successful performance outcomes in business growth, increase in an organisation's survival and sustainability of, and in the improvement of a firm's competitive advantage. The findings were obtained from both the quantitative analysis from the data obtained from graduates, and the qualitative analysis from the perspectives of academics and human resources managers. This finding is in agreement with the study conducted by Mahadalle and Kaplan (2017), which argued that aside from the ability of employees with entrepreneurial capabilities to assist in resource mobilisation and efficient utilisation, their possession of knowledge of tools and instruments about a job, as well as mastery of tasks and work content, were essential qualities that provide an organisation with the opportunity to develop a sustainable competitive advantage.

The results confirmed the findings of studies conducted by researchers (Agu, 2015; Sarwoko, 2013), that suggested that entrepreneurial capabilities are essential ingredients in the promotion of successful performance outcomes in business growth. They make employees more active, creative, and improve their job performance, as well as help to achieve professional and personal development (Bigiardi, 2013; Wijetunge & Pushpakumari, 2013; Bakar & Zainol, 2015; Bortkeviciene, 2015). Moreover, employees who possess entrepreneurial capabilities are able to coordinate,

monitor, organise, and utilise internal and external resources, which ensures the effective performance of firms (Lazar & Paul; 2015; Oliphant, 2016). The findings are in line with the views of the resource-based theorists, who argued that entrepreneurial capabilities are critical for the growth and development of entrepreneurial firms (David & Simpson, 2017; Vasudevan, 2021). While the academics argued that these capabilities could only translate into useful ingredients in an organisation, when an employee has the required support of the entrepreneurial ecosystem, the human resources managers submitted that employees' willingness to perform plays a critical role in meeting the needs of employers. The findings from the perspective of academics revealed that the nature of an entrepreneurial business ecosystem is critical in the performance of employees, and not the mere possession of entrepreneurial capabilities.

On the other hand, the perspective of the human resources managers showed that possession of entrepreneurial capabilities does not necessarily relate to commitment to performance, but rather depends on an employee's willingness to perform. The findings from the perspective of the academics confirmed the findings of a study by Saidiet al. (2019), namely, that a firm's entrepreneurial ecosystem plays a critical role in the performance of employees. Meanwhile, the perspective of the HRMs corroborated the argument of Robertson-Smith and Markwick (2009), as well as of Osborne and Hammoud (2017), who were of the view that employees' willingness to perform, influences their engagement and commitment levels, which in turn affect the firm's performance.

4.8.3 Research Objective Three: To Investigate Entrepreneurial Activities Experienced by Graduates in Entrepreneurship Education

The research results from quantitative insights, indicated that all the entrepreneurial activities were experienced by the graduates who had had the opportunity to participate in entrepreneurship education. The results, specifically, from the qualitative insights from lecturers, indicated that the majority of the activities are rarely utilised by them, although they were considered useful in promoting the development of entrepreneurial capabilities. The findings also indicated that the most

dominant activities used by lecturers, were guest speakers, business plan competitions, fieldwork or trips, as well as seminars and conferences. Internships were used, although not necessarily in entrepreneurship education, but were not mandatory. The differences between the findings from the graduates and lecturers, provide an interesting debate as to the entrepreneurial activities being used in the teaching of entrepreneurship. That is, while graduates argued that they experienced all the entrepreneurial activities, lecturers who taught them believed that the former were only exposed to five (5) major entrepreneurial activities, namely: guest speakers, fieldwork and/or trips, seminars and conferences, business plan competitions, and internships – although these were not exclusively limited to EE.

The human resources managers shared the same perspective as the lecturers. It could, therefore, be concluded, based on the qualitative results, that graduates are exposed to the five (5) major entrepreneurial activities in EE formerly mentioned. The results confirm the findings from previous studies (Karunaratne & Perera, 2015; Fulgene, 2015; Tipu, 2019; Watson et al., 2018; Abdi & Dorathy, 2019; Ibrahim et al., 2020; Okolie et al., 2020; Ebner et al., 2021) that found that guest speakers, fieldwork/trips, seminars and conferences, as well as business plan competitions are the dominant activities used in entrepreneurship education

The inability of lecturers to use some of the entrepreneurial activities, can be attributed to institutional policies and general challenges that confront the teaching of EE in higher educational institutions. This study's findings confirm those from existing studies (Arasti et al., 2012; Ferreira & Pinheiro, 2018; Olokundun et al., 2017; Schumann, 2019), which considered the use of business plans as well as guest speakers to be amongst the most commonly used entrepreneurial activities in entrepreneurship education, that promote students to take action and encompass an important aspect of EE.

The arguments of the human resources managers regarding the need to reduce class instruction time, to pave way for students' engagement in entrepreneurial activities, was in line with the arguments by Mendes et al. (2021) as well as by Balaguer et al.

(2020), namely, that there should be extended school time in favour of co-curricular activities, in order to promote a more global education and the development of sought after capabilities among students.

4.8.4 Research Objective Four: To Determine the Approaches Employed in Teaching Entrepreneurship Education

The findings of the study reveal that universities in Ghana integrate all approaches (i.e., the blended approach) in the teaching of entrepreneurship education. The quantitative results from graduates indicated that the major approach to EE which they experienced, was a combination of all the approaches (the education about entrepreneurship, education for entrepreneurship, and education through education approaches). The qualitative insights from the perspective of academics confirmed the quantitative findings from graduates, except that the former did not indicate the use of the education for entrepreneurship approach.

The qualitative insights from academics revealed that most of the academics adopted the blended approach in the teaching of entrepreneurship, while the findings from HRMs also confirmed the need for the adoption of all three approaches, that is, of a blended or mixed approach to entrepreneurship education.

The finding buttressed some researchers' argument that the current approaches and pedagogies to entrepreneurship education, needed to be more innovative than the traditional model being used in various educational institutions (Zepesa, 2015). The study further confirmed the views of authors who argued that there was no single approach that universities could use in the teaching of EE, because of the differences in philosophical perspectives (Zepeda, 2015; Neck & Greene, 2011).

4.8.5 Research Objective Five: To Examine the Effect of Entrepreneurial Activities on the Development of the Entrepreneurial Capabilities of Graduates

The research's results indicated that the majority of the respondents (graduates, academics, and human resources managers) accepted that entrepreneurial activities have a significant effect on graduate employability. The results from the qualitative

data indicated that, both lecturers and human resources managers suggested that entrepreneurial activities have a positive impact on promoting the development of entrepreneurial capabilities in graduates who participated in EE. The quantitative findings from graduates also revealed that the activities in entrepreneurship education, positively and significantly influence the development of all the components of the entrepreneurial capabilities (entrepreneurial knowledge, attitudes, and skills) of graduates, since the t-values were higher than 1.96 and the p-values were less than 0.005. Therefore, the research findings supported the hypothesis that entrepreneurial activities in EE positively affected the development of the entrepreneurial capabilities of graduates.

The findings confirmed those of previous studies (Stuart et al. 2011; Lau et al., 2013; Tchibozo, 2015) that revealed that entrepreneurial activities have a significant impact on graduate employability. The study is positioned to argue, based on the findings, that students who participate in these entrepreneurial activities, are more likely to find jobs than those with little or no opportunity to participate in such activities (Bangerter & Rouline, 2013; Cuschieri, 2012; Merino, 2007). Studies conducted by Adjei (2013), Karunaratne and Perera (2015), as well as by Okay and Sahin (2010), for instance, revealed that since the labour market does not necessarily require only graduates who have high academic knowledge, but also graduates who can demonstrate core capabilities essential to succeed in the work environment, participation in entrepreneurial activities increases the marketability of the students when they graduate.

4.8.6 Research Objective Six: To Assess the Effect of the Approaches to Teaching Entrepreneurship on the Entrepreneurial Capabilities of Graduates

The finding from the quantitative data obtained from graduates showed that, while the education about entrepreneurship and the education for entrepreneurship approaches had a positive and significant influence on entrepreneurial skills and attitudes, the education through entrepreneurship approach revealed a negative and insignificant relationship with entrepreneurial skills and attitudes. All three approaches had positive, but insignificant, effects on entrepreneurial knowledge.

The qualitative insights revealed that both the academics and human resources managers, considered the blended approach to EE approach as the one that had a sufficient and positive effect on the development of entrepreneurial capabilities. In spite of this, they also considered education about and education through entrepreneurship as critical approaches, that significantly contribute to entrepreneurial capability development. The findings support the stands by researchers, such as Moses et al. (2015), Lackéus (2013), Moberg (2014), and Piperopoulos and Dimov (2014), among others, who argue that different approaches to entrepreneurship education significantly influence the development of graduates' entrepreneurial capabilities.

4.8.7 Research Objective Seven: To Assess the Effect of Entrepreneurial Capabilities on Graduate Employability

The research findings indicated that entrepreneurial capabilities influence graduates' employability, to a significant extent. This assertion is supported by the fact that the quantitative results from the perspective of graduates, confirmed this, excluding entrepreneurial knowledge. That is, it was revealed that entrepreneurial capabilities, comprising entrepreneurial skills and attitudes, significantly promote graduate employability, whereas entrepreneurial knowledge had no statistically significant effect on it.

The qualitative results, on the other hand, proved that entrepreneurial capabilities contributed to graduate employability. The findings from both the academics and the human resources managers were not different, as both groups argued that entrepreneurial capabilities influence graduate employability positively. Moreover, both groups of respondents argued that entrepreneurial knowledge, skills, and attitudes influence graduate employability.

This finding confirmed the results from studies conducted by researchers and institutions, that argued that entrepreneurial capabilities influence graduate employability (British Council, 2015; Pereira, 2016; Samuel et al., 2012; Rudhumbu et al., 2016; Tan & French-Arnold, 2012). The findings also supported the assertion of the entrepreneurial human capital theory, namely, that with the right investment in

education, an individual is positioned to develop relevant capabilities and to enjoy great returns (Becker, 1975; Kozlinka, 2016; Thomas, 2011).

4.9 CHAPTER SUMMARY

This chapter presented and discussed the empirical research of the study. The chapter started with the quantitative analysis of the demographic data from respondents, went on to the analysis of quantitative and qualitative results, and ended with the discussion of research findings. The analysis of empirical results was done in accordance with the research objectives and questions of the study. In all, the results indicated that entrepreneurship education has positive effects on graduates' employability. The findings also supported the human capital theory, which argues that investment in education is likely to influence the return on investment, as well as the resource-based theory, which suggests that when job seekers possess the right capabilities, they are attracted and retained by employers. The next chapter discusses the summary, conclusion, and recommendations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The previous chapter discussed the results of the study. This chapter provides an overview of the major issues discussed in the preceding chapters of the thesis. The major findings are re-emphasised, and conclusions are drawn. The recommendations, implications, contribution to knowledge, and limitations of the study are also discussed. Lastly, areas for future research are also presented accordingly.

5.2 SUMMARY OF THE STUDY

The aim of the study was to evaluate the effect of entrepreneurship education (EE) on graduate employability in Ghana. Specifically, the purpose of the study was to investigate whether one's participation in EE in Ghanaian universities, would influence the development of entrepreneurial competencies needed by the corporate world, and whether these are relevant to the needs of employers in that sector. Furthermore, the study sought to find out whether currently used entrepreneurial activities and approaches to EE, are likely to influence the development of entrepreneurial capabilities. The research was approached in this way, because employability was considered from both competency-based and individual-based perspectives (employability as seen as preparation for work). Eight lecturers from three major universities, twelve human resources managers (HRMs) selected from some state-owned enterprises in Ghana, as well as three hundred and ten graduates, were involved in the study.

The study report consists of five chapters. The first chapter dealt with a general background introduction to the research, which highlighted the rationale for the study, as well as its four research objectives and three hypotheses. The rationale for the study emphasised the dearth of research available, demonstrating the crucial role of EE in the development of employable graduates, and the valuable contribution of these individuals to the corporate world, especially in the practice of intrapreneurship. A research study that deviates from the traditional use of only participants in EE and training programmes, to also include curriculum designers and implementers, as well

as employers of the graduates produced, was essential, considering the current rise in unemployment of graduates, and their restless attitudes in pursuit of paid employment, especially in sub-Saharan Africa.

Chapter two outlined the concepts and theories that underpinned the study, and how these related to the research objectives. The study employed theories in the areas of economics and human capital development, and the justification for the use of these theories was provided. The chapter was also dedicated to the review of existing studies on issues related to the research topic. Essential existing studies on impact measurement in EE and approaches to it, acquisition and development of entrepreneurial capabilities, and the contribution of entrepreneurial activities in the development of entrepreneurial capabilities, were reviewed.

Chapter three focused on the research methodology used for the study. A detailed explanation of the mixed methods research approach (the convergent parallel mixed method) was provided. The research population, sample and sampling procedures, data collection methods, and data analysis were discussed thoroughly, and the justification for adopting them was provided. Issues on reliability and validity, mainly on the pretesting of research questionnaires and ethical considerations for the study, also formed part of the discussion. Finally, a framework adopted from Creswell (2013), that established a relationship between the major elements of the study, namely, the research paradigm, design and approaches, was provided to summarise the research methodology.

Chapter four was dedicated to the presentation and analysis of the quantitative and qualitative empirical data, as well as discussion of research findings in line with the research objectives, existing theories, and literature.

5.3 CONCLUSIONS

The following conclusions were made based on the empirical findings of the study.

5.3.1 Entrepreneurial Capabilities Gained by Graduates through Entrepreneurship Education

Graduates develop capabilities from their participation in EE. These capabilities are considered essential by human resources managers to ensure the development of their organisations. However, not all these capabilities are needed and are considered necessary when classifying employable competencies. Some capabilities under entrepreneurial knowledge, skills, and attitudes were rejected as not being crucial employability indicators within the Ghanaian context. This finding implies that curriculum developers and implementers (lecturers) now know the competencies required by employers and human resources managers, and hence must try, as a matter of urgency, to incorporate these in the design of academic programmes, especially entrepreneurship-related ones.

5.3.2 Relevance of Entrepreneurial Capabilities to Organisations

Entrepreneurial capabilities were found to be relevant to the needs of employers and development of state-owned enterprises in Ghana. These capabilities were found to be fundamental ingredients in promoting organisations' competitive advantage, sustainability and survival, employee performance, organisational productivity, and resource mobilisation and utilisation. The study, therefore, concludes that employees need to acquire these capabilities and act in an entrepreneurial manner to ensure the development of state-owned enterprises. Emphasis should also be placed on the need to employ intrapreneurs in organisations. It is essential, therefore, for human resources managers and top management, to provide opportunities and enabling environments for individuals to utilise their entrepreneurial capabilities.

5.3.3 Entrepreneurial Activities Experienced by Graduates in Entrepreneurship Education

The entrepreneurial activities mostly adopted by facilitators in the teaching of entrepreneurship, are guest speakers, business plan competitions, seminars, internships, and field trips and/or work. Although internships were also considered an

important employability development activity, they were not mandatory in the teaching of entrepreneurship. The study concludes that lecturers, who facilitate courses in EE, should expose students to more of these activities, to ensure the development of well-rounded graduates, who are positioned to seek paid jobs or create work on their own.

5.3.4 Approaches Employed in Teaching Entrepreneurship Education

Educational facilitators in EE use a mixed/blended approach to teaching entrepreneurship, though most human resources managers recommend education through entrepreneurship. Graduates' exposure to different approaches to teaching EE, particularly the mixed and education through entrepreneurship approaches, improved the employability of graduates who participated in it. The study concludes that a mixed/blended approach to EE would be valuable to the teaching of entrepreneurship, and ensure the development of entrepreneurial capabilities, since all the approaches are interrelated.

5.3.5 Effect of Entrepreneurial Activities on the Development of the Entrepreneurial Capabilities of Graduates

Entrepreneurial activities influenced graduates' employability. However, although activities such as internships, entrepreneurial clubs, and extracurricular activities were considered relevant to the development of graduate employability, they were not used by most lecturers, especially in the teaching of entrepreneurship. Entrepreneurial activities were found to have a positive influence on the development of graduate employability.

5.3.6 Effects of Different Approaches to Entrepreneurship Education on the Development of the Entrepreneurial Capabilities of Graduates

The approach to EE used, significantly influences the employability of graduates, although stakeholders (graduates, lecturers, and human resources managers) had varied perceptions on each of these. Despite these different viewpoints, the blended approach seems to have a greater influence on the development of entrepreneurial

capabilities. As such, adoption of the mixed or blended approach is likely to satisfy the desires of all the stakeholders.

5.3.7 Effects of Entrepreneurial Capabilities on Graduate Employability

From the perspective of graduates, entrepreneurial capabilities, comprising entrepreneurial skills and attitudes, significantly promote graduate employability, whereas entrepreneurial knowledge had no statistically significant effect on it. Lecturers and human resources managers had similar views that all entrepreneurial capabilities had significant effects on graduates' employability in Ghana. However, the former believed that entrepreneurial ecosystem influences the intention of the graduates to engage in entrepreneurial activities.

5.4 RECOMMENDATIONS

Based on the conclusions of the study, the following recommendations are made.

- Entrepreneurship education should be integrated into teaching all programmes at the tertiary level, as recommended by the Government of Ghana, since human resources managers require graduates to possess entrepreneurial competencies.
- The relevant role that entrepreneurial capabilities play in organisational development and growth, implies that more resources should be allocated for teaching these capabilities in higher education. This will provide learners with the opportunity to acquire and develop valuable competencies from their participation in EE and training programmes.
- Tertiary institutions could adopt the blended or mixed approach to the teaching of entrepreneurship. This approach will provide avenues for graduates to acquire and develop competencies and experiences, that will make them well-rounded individuals capable of creating their own employment.
- Following global issues in graduate unemployment, EE should be considered as a strategic tool in educating individuals, who will go on to function effectively within their private or corporate organisations.
- As part of EE, students should be given the opportunity to undergo industrial attachments with firms or entrepreneurs, in order to have a practical feel of the theories taught in class.

- Human resources managers must provide an enabling environment (policies, structure, etc.) for national service persons to demonstrate competencies, by exploiting available entrepreneurial opportunities.
- There should be a collaborative effort between academics and industry players in teaching entrepreneurship at universities. This strategy is to ensure that students acquire the relevant competencies that are needed most in the labour market.

5.5 CONTRIBUTION TO KNOWLEDGE

Conceptual Contribution

The study contributes to the dearth of knowledge on the effects of EE on graduate employability, especially in developing countries and specifically in Africa. Most studies (Fayolle & Gailly, 2013; Lackeus, 2014; Lange et al., 2011; Newbold, 2014; Mason & Arshed, 2013; Matlay, 2008; McMullan et al., 2002; Oosterbeek et al., 2010; Piperopoulos & Dimov 2014; Rauch & Hulsink, 2014; Sanchez, 2014; Vesper and Gartner, 1997) on the effects of EE were conducted in developed countries; hence, their findings cannot be generalised to developing countries, such as Ghana. The current study contributes to the number of impact studies on EE in Ghana and Africa.

The study also contributes to a bank of extensive knowledge on employability development activities in EE, and how these affect the development of employable graduates. Since little is known about the contribution of these activities to graduates' employability, as purported by Fulgene (2015), the study contributes to bridging this gap, especially in a developing country like Ghana. The current study is unique compared to other studies that focused on the effects of these activities on the development of graduate employability (Bangerter & Roulin, 2013; Fulgene, 2015; Lau et al., 2013), primarily because it considered the use of these entrepreneurial activities in the teaching of EE in higher educational institutions, and ascertained its effect on graduate employability.

Moreover, although studies have established a strong relationship between the different approaches to EE and the development of the entrepreneurial capabilities of participants (Lackéus, 2013; Moberg, 2014; Piperopoulos & Dimov, 2014; Tasnim,

2012), much is still not known about which of these approaches is best suited for adoption, especially within higher educational institutions (Lackeus, 2013). The current study contributes in bridging this research area that needs to be pursued in EE and teaching.

Methodological Contribution

The literature reviewed indicated that most studies on the effects of EE only gather information from participants' perspectives (students). However, the current study also gathered information from the perspectives of graduates, lecturers, and human resources managers. The study, therefore, contributes to bridging this methodological gap, as it sought to gather and compare data from these three different groups of respondents. As such, the study's findings cannot be described as biased and skewed in favour of EE, since the opinions of different stakeholders were considered. The study also deviated from most of the traditional studies, where pre-post designs were used to draw conclusions on the effects and/or impacts of EE, by only concentrating on the capabilities that graduates gained after participating in it (Longva & Foss, 2018; Cera & Cera, 2019; Cera et al., 2020),

Unlike other studies (Gray, 2013; Rauch & Hulsink, 2014) that relied on pre-post designs, the current study is positioned to argue that pre-post evaluation designs are useful, when interventions are needed to address the needs of participants. Based on the arguments put forward by constructivist learning theory, specifically Bruner (1990), that learners possess relevant knowledge before they participate in any educational programme, EE only reinforces what students already know, and does not necessarily teach them new knowledge. In line with this argument, the study argued that the post-test offered enough justification for what students acquired.

The study also represents one of the very few ones that deviate from the use of control/treatment groups, especially when a study explores the effects on participants of participating in entrepreneurship programmes. The current study argues that the use of a control/treatment groups would result in mismatched responses from them, as they most often have different characteristics and have likely not been exposed to EE.

Moreover, the study provided a contribution to the knowledge in the use of mixed methods design, as mixed results, as well as conflicting and inconclusive findings, have been associated with quantitative impact studies in EE in previous studies.

Practical Contribution

The findings of the study highlight the need for governments, educational institutions, and industry players to invest in teaching and research in the field of EE, in an attempt to develop individuals with entrepreneurial capabilities. This investment in the teaching of EE would imply the development of human resource capacities, that are needed in promoting the development of both public and private firms. Furthermore, the study promulgates the need for tertiary institutions to introduce, as a matter of necessity, the compulsory teaching of a course in entrepreneurship in every academic programme.

The study also contributes to the literature on the relevant role that entrepreneurial activities play in developing graduates with entrepreneurial capabilities. The study therefore provides an avenue for EE facilitators to use entrepreneurial activities in the teaching of entrepreneurship. The strategy is to provide students with the opportunity to acquire relevant entrepreneurial capabilities, through their engagement in real entrepreneurial situations.

Lastly, the current study contributes to knowledge in the field of EE, by revealing the need for employers to provide opportunities for graduates to utilise their entrepreneurial capabilities, to promote the growth and sustainability of organisations. The study provides employers with an understanding of the crucial role of entrepreneurial capabilities in solving organisational challenges, as well as their responsibility in providing an enabling environment for the practice of entrepreneurial initiatives by graduates.

5.6 LIMITATIONS OF THE STUDY

Although the researcher believes that the study makes a great contribution to the research on the effects/impact of EE, it cannot claim to offer a comprehensive

investigation of the extensive existing empirical studies on the topic. Again, with the number of institutions that offer EE in Ghana, the sample of institutions selected cannot be considered comprehensive. It can also be argued that the findings of this study cannot be generalised because other programmes similar to EE, are designed to produce individuals who are capable of fitting easily into the labour market, either by way of employment seeking or venture creation. Hence, one's participation in EE cannot be used as a yardstick to measure his or her employability, and automatic absorption into the labour market.

Entrepreneurial education, as a programme or course, is multidisciplinary in nature and differs in terms of content, facilitation, aims, modes of assessment, duration of study, and purpose, among other factors, even within a similar geographical area. Owing to this, graduates from these programmes are likely to exhibit a variety of characteristics; hence, the effects of EE cannot be generalised, even within the Ghanaian context. There is also a paucity of information on EE in an emergent economy. Therefore, the researcher is likely to consider information from different fields in the study, and establish relations between different variables considered. Nevertheless, the study seeks to fill some research gaps in the areas of EE and graduate employability within developing economies.

5.7 AREAS FOR FUTURE RESEARCH

The current study calls for further research on the effects of EE on graduate employability, focusing on the direct involvement of students in self-employment, as well as on other outcomes of EE. The possibility of such a study would provide a better appreciation and justification, to determine whether the intention of most African countries, particularly Ghana, to use EE as a catalyst for graduate employment, is being achieved. There is also a need to conduct a longitudinal study to ascertain the effect of EE on business start-ups by student entrepreneurs. The findings of such a study would provide educational institutions offering EE with information about the needs and performances of these start-ups. The findings would further allow educational institutions to initiate appropriate strategies, that would

promote the teaching of entrepreneurship, and provide business development services and opportunities that would accelerate the growth of these business start-ups.

Future research could also investigate the relevance of entrepreneurial capabilities in privately-owned enterprises in Ghana, since the majority of these companies are managed and owned by private individuals. A comparative study between graduates from traditional universities and converted technical universities should be conducted, to determine whether EE at these institutions impacts graduate employability differently.

More research should be conducted to concentrate only on the products of a particular or specific EE programme. The purpose would be to provide avenues to understand how the various characteristics of these EE programmes impact graduate employability, as a result of these programmes' multifaceted nature. This, therefore, calls for the need to study the effects of individual elements or characteristics of EE on graduate employability. Furthermore, infrastructural support could influence the development of graduates' entrepreneurial capabilities. In this regard, future studies should explore how infrastructural support allocated for the teaching and learning of EE, influences students' acquisition and development of entrepreneurial capabilities, and their employability upon graduating.

REFERENCES

- Ab Hamid, M. R., Sami, W., & Sidek, M. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series*, 890(1), 012163. IOP Publishing.
- Abaho, E., & Sylvia, A. N. J. M., & Kisubi, MK (2016). Firm capabilities, entrepreneurial competency and performance of Ugandan SMEs. *Business Management Review*, 105-125.
- Abdelgawad, S. G. E. S. (2013). *Entrepreneurial capability: Examining opportunity pursuit in multiple contexts*. Unpublished Doctoral Dissertation submitted to University Ramon.
- Abdi, S. M., Dorathy, M. B. C., & Barot, M. P. (2019) How organizational and trainee characteristics influence the training program of employees in Djibouti Port. *International Journal of Innovative Technology and Exploring Technology (IJITEE)*, 8(9S2), 269 – 275.
- Abelha, M., Fernandes, S., Mesquita, D., Seabra, F., & Ferreira-Oliveira, A. T. (2020). Graduate employability and competence development in higher education — A systematic literature review using PRISMA. *Sustainability*, 12(15), 5900.
- Aboagye, A. A. (2016). *Gender and Accounting Education in Ghana* (Doctoral dissertation, University of Ghana).
- Aboobaker, N., & Renjini, D. (2020). Human capital and entrepreneurial intentions: Do entrepreneurship education and training provided by universities add value? *On the Horizon*, 28(2), 73–16.
- Aburai, T., & Takeyasu, K. (2020). Effects of innovation education and corporate needs-analysis using Bayesian network. *International Business Research*, 13(12), 51–62.
- Adedeji, B., & Rahman, M. M. (2018). Innovative teaching methods and entrepreneurship education: A review of literature. *Journal of Business Economics and Management*, 10(1), 2395-2210.
- Adelaja, A. A., & Minai, M. S. (2018). Students entrepreneurial intention changes due to entrepreneurial education exposure: The experimental design approach. *Journal of Entrepreneurship Education*, 21(4), 1-12.

- Adesina, O.S. (2013). Unemployment and security challenges in Nigeria. *International Journal of Humanities and Social Science*, 3(7), 146-156.
- Adesola, S., den Outer, B., & Mueller, S. (2019). New entrepreneurial worlds: can the use of role models in higher education inspire students? The case of Nigeria. *Journal of Entrepreneurship in Emerging Economies* 11(4), 465 – 486.
- Adeyemo, S. A., Ogunleye, P. O., Adeyemi, M. A., & Kareem, T. S. (2021). entrepreneurship education as an impetus to entrepreneurial competence and entrepreneurial intentions among polytechnic students: a quantitative approach. *Asian Journal of Education and Social Studies*, 17(4), 29–37.
- Adigüzel, Z., & Musluhittinoglu, N. N. (2021). The impact of entrepreneurship education quality on entrepreneurial intention. *Gençlik Araştırmaları Dergisi*, 9(23), 22-42.
- Adom, K. (2016). Tackling informal entrepreneurship in Ghana: A critical analysis of the dualist/modernist policy approach, some evidence from Accra. *International Journal of Entrepreneurship and Small Business*, 28(2-3), 216-233.
- Adom, K., & Asare-Yeboah, I. T. (2016). An evaluation of human capital theory and female entrepreneurship in Sub Saharan Africa: Some Evidence from Ghana. *International Journal of Gender and Entrepreneurship*, 8(4), 402-423.
- Afriyie, N., & Boohene, R. (2014). Entrepreneurial Education and Entrepreneurial Culture among University of Cape Coast Students in Ghana. *Athens Journal of Education*, 1(4), 309-321.
- Agu, O. L. (2015). Work engagement, organizational commitment, self-efficacy and organizational growth: A literature review. *Information Impact: Journal of Information and Knowledge Management*, 6(1), 14-29.
- Ahlin, B., Drnovšek, M., & Hisrich, R. D. (2012). Exploring moderating effects of proactivity on the relationship between market information and innovation performance. *Economic and Business Review*, 14(2), 121-146.

- 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.
- Ahmad, F., & Guzman, F. (2021). Consumer skepticism about online reviews and their decision-making process: the role of review self-efficacy and regulatory focus. *Journal of Consumer Marketing* 38(5), 587–600.
- Ahmad, M. H., Adnan, R., & Adnan, N. (2006). A comparative study on some methods for handling multicollinearity problems. *MATEMATIKA: Malaysian Journal of Industrial and Applied Mathematics*, 109-119.
- Aida, B., Norailis, A.W. & Rozaini, R. (2015). Critical success factors of graduate employability programmes. *Journal of Economics, Business and Management*, 3(8), 767-771.
- Ajamobe, J. O. (2021). Risk taking capacity and entrepreneurship inclination of graduates among postgraduate students in public universities in Lagos State, Nigeria. *Jurnal Pendidikan Nonformal*, 16(2), 94–103.
- Ajidem, K. B., & Alimi, O. Y. (2021). Income inequality, human capital and terrorism in Africa: Beyond exploratory analytics. *International Economics*, 165(5), 218–240. <https://doi.org/10.1016/j.inteco.2021.01.003>
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl et al. (eds.). *Action control*, 11–39. Springer: Verlag Berlin Heidelberg.
- Akanbi, P. A., & Owoseni, O. O. (1988). The influence of personality traits on entrepreneurial intentions: A Nigerian survey. *AFBE JOURNAL*, 80.
- Akhmetshin, E. M., Mueller, J. E., Yumashev, A. V., Kozachek, A. V., Prikhodko, A. N., & Safonova, E. E. (2019). Acquisition of entrepreneurial skills and competences: Curriculum development and evaluation for higher education. *Journal of Entrepreneurship Education*, 22(1), 1-12.
- Akhuemonkhan, I. A., Raimi, L., & Sofoluwe, A. O. (2013). Entrepreneurship education and employment stimulation in Nigeria. *Journal of studies in social sciences*, 3(1).
- Alanazi T. M. (2018). SMEs branding: The interaction of entrepreneurial orientation. *Journal of Research in Marketing* 9(3), 739 – 751.

- Alaref, J., Brodmann, S., & Premand, P. (2020). The medium-term impact of entrepreneurship education on labor market outcomes: Experimental evidence from university graduates in Tunisia. *Labour Economics*, 62, 101787.
- Ali, M. S., & Jalal, H. (2018). Higher education as a predictor of employment: The world of work perspective. *Bulletin of Education and Research*, 40(2), 79-90.
- Aliu, J. & Aigbavboa, C.O. (2020). Structural determinants of graduate employability: impact of university and industry collaborations. *Journal of Engineering, Design and Technology*, 19(5), 1080-1100.
- Aliu, S. (2007). Entrepreneurship education: An overview teacher's guide on entrepreneurship education for polytechnic and monotechnics in Nigeria. In *Proceeding of Lagos State University faculty of education international conference*.
- Aliyu, A. A., Bello, M. U., Kasim, R., & Martin, D. (2014). Positivist and non-positivist paradigm in social science research: conflicting paradigms or perfect partners? *Journal of Management and Sustainability*, 4(3).
- Allan, I. S. (2021). Entrepreneurship education and creation of postgraduate entrepreneurs in a post-socialist economy. *Papers in Education and Development*, 38(1), 167–188.
- Almalki, S. (2016). Integrating quantitative and qualitative data in mixed methods research - challenges and benefits. *Journal of Education and Learning*, 5(3), 288-296.
- Almeida, F. (2018). Strategies to perform a mixed methods study. *European Journal of Education Studies*, 5(1), 137-151.
- Alnaeem, L. (2021). Involvement in extracurricular activities and overcoming high levels of communication apprehension among Saudi EFL Majors. *Arab World English Journal (AWEJ)*, 12(2), 185-208.
- Alnakhli, H. Q. (2019). *Better, busier, or stressed out? Exploring social media-induced technostress in a sales context*. Unpublished Doctoral dissertation submitted the University of Texas, Arlington.

- Al-Rasbi, S. S. (2020). *Exploring a complex process: A study using constructivist grounded theory principles to explore the introduction of roles with advanced practice nurse titles in a tertiary hospital in Oman*. Unpublished Doctor of Philosophy Thesis submitted to the University of Manchester, Manchester.
- Al-Shehab, N. & Al-Hashimi, M. (2021). Do employability skills for business graduates meet the employers' expectations? The case of retail Islamic banks of Bahrain, *Higher Education, Skills and Work-Based Learning*, 11(2), 349-366.
- Amalia, R. T., & Korflesch, H. F. V. (2021). Entrepreneurship education in European and American higher education: a systematic literature review. *Journal for International Business and Entrepreneurship Development*, 13(3-4), 311-349.
- Ampadu-Ameyaw, R., Jumpah, E., Owusu-Arthur, J., Boadu, P., & Fatunbi, O. (2020). A review of youth employment initiatives in Ghana: Policy perspective. *FARA Research Report 5* (5): 1- 41.
- Andrade, C. (2018). Internal, external, and ecological validity in research design, conduct, and evaluation. *Indian Journal of Psychological Medicine*, 40(5), 498-499.
- Anosike, P. (2019). Entrepreneurship education as human capital: Implications for youth self-employment and conflict mitigation in Sub-Saharan Africa. *Industry and Higher Education*, 33(1), 42-54.
- Anwar, M., & Ali Shah, S. Z. (2020). Managerial networking and business model innovation: Empirical study of new ventures in an emerging economy. *Journal of Small Business & Entrepreneurship*, 32(3), 265-286.
- Appiah-Kubi, J., Ceter, A., & Luboder, Z. (2020). Gender inequality in key sectors in Ghana: Current Trends, Causes and Interventions. *Ulisa: Uluslararası Çalışmalar Dergisi*, 4(1), 75-87.
- Arasti, Z., Falavarjani, M. K., & Imanipour, N. (2012). A study of teaching methods in entrepreneurship education for graduate students. *Higher education studies*, 2(1), 2-10.

- Araújo, J. C., Lima, A. C. S., Nunes, M. P. M., Sousa, M. A. P., Serrão, G. X., Morais, E. C., ... & Silva, A. G. M. (2020). Relationships among carcass shape, tissue composition, primal cuts and meat quality traits in lambs: A PLS path modeling approach. *Small Ruminant Research*, 182, 52-66.
- Arvaja, M., P. Häkkinen, H. Rasku-Puttonen, & Pelto, A. (2002). Social processes and knowledge building during small group interaction in a school science project. *Scandinavian Journal of Educational Research*, 46 (2), 161–179.
- Asamoah, K. (2015). Rhetoric or reality? The role of capacity development in poverty reduction in Ghana. *African Journal of Public Affairs*, 8 (3); 146-165.
- Asiamah, N., Mensah, H. K., & Oteng-Abayie, E. F. (2017). General, target, and accessible population: Demystifying the concepts for effective sampling. *The Qualitative Report*, 22(6), 1607-1622.
- Asiedu, R. (2019). *Time management and its effect on employees performance; A case of Fan Milk Limited*. Unpublished Doctor of Philosophy Thesis submitted to the University of Ghana.
- Asitik, A. J., & Nunfam, V. F. (2019). Quality and relevance of entrepreneurial education in Ghana: Perspectives of undergraduate students. *UDS International Journal of Development*, 6(3), 41-56.
- Assensoh-Kodua, A. (2019). The resource-based view: a tool of key competency for competitive advantage. *Problems and Perspectives in Management*, 17(3), 143.
- Asuquo, P. N., & Inaja, A. E. (2013). Fostering sustainable career development and employability among young people in the changing world of work: Employers' perspective. *Procedia-Social and Behavioral Sciences*, 84, 1492-1499.
- Audretsch, D. B., & Belitski, M. (2017). Entrepreneurial ecosystems in cities: Establishing the framework conditions. *The Journal of Technology Transfer*, 42(5), 1030-1051.
- Augier, M., & Teece, D. J. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science*, 20 (2), 410-421.

- Aurik, G., & Astri, G. (2018). An analysis of differences in students' entrepreneurial competencies between the management and entrepreneurship study programmes at the School of Business and Management (SBM) Institut Teknologi Bandung (ITB). *Journal of Entrepreneurship Education*, 21(4), 1-11.
- Avey, J. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of occupational health psychology*, 15(1), 17.
- Baah-Boateng, W. (2020). *Africa youth employment insights: Ghana brief*. Netherlands-African Business Council.
- Babatunde, S.A (2016). *The impact of entrepreneurship education on developing entrepreneurial graduates: A comparative study of similar Nigerian and UK Higher Education Institutions*. Unpublished Doctor of Philosophy Thesis submitted to the Birmingham City Business School, Birmingham.
- Backström-Widjeskog, B. (2010). Teachers' thoughts on entrepreneurship education. In K. S. Sjøvoll, *Creativity and innovation - Preconditions for entrepreneurship education*. Trondheim: Tapir Academic Press.
- Bae, S. O., & Patterson, L. (2014). Comparison and implications of human capital theory at the individual, organization, and country levels. *Journal of Organizational Culture, Communications and Conflict*, 18(1), 11–28.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94.
- Baid, H. (2019). *Satisficing for sustainability in critical care practice: a constructivist grounded theory*. Unpublished Doctor of Philosophy Thesis to the University of Brighton, Brighton.
- Bakar, L. A., & Zainol, F. A. (2015). Vision, innovation, pro-activeness, risk-taking and SMEs performance: A proposed hypothetical relationship in Nigeria. *International Journal of Academic Research in Economics and Managements Sciences*, 4(1), 45-53.
- Bakar, R., Islam, M. A., & Lee, J. (2015). Entrepreneurship education: Experiences in selected countries. *International Education Studies*, 8(1), 88-99.

- Baker, S. D., & Comer, D. R. (2012). Business ethics everywhere. *Journal of Management Education*, 36 (1), 95:125.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50 (3), 329-366.
- Bakotic, D., & Kruzic, D. (2010). Students' perceptions and intentions towards entrepreneurship: the empirical findings from Croatia. *The Business Review*, 14(2), 209-215.
- Balaguer, Á., Benítez, E., Albertos, A., & Lara, S. (2020). Not everything helps the same for everyone: relevance of extracurricular activities for academic achievement. *Humanities and Social Sciences Communications*, 7(1), 1-8.
- Bamfo, B. A., Asiedu-Appiah, F., & Dogbe, C. S. K. (2017). Factors influencing entrepreneurship start-ups among graduate students in Ghana. *International Journal of Business and Management Studies*, 6(2), 219–228.
- Barazandeh, M., Parvizian, K., Alizadeh, M., & Khosravi, S. (2015). Investigating the effect of entrepreneurial competencies on business performance among early stage entrepreneurs Global Entrepreneurship Monitor (GEM 2010 survey data). *Journal of Global Entrepreneurship Research*, 5(8), 1-12.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of management Review*, 33(2), 328-340.
- Barrie, S.C. (2004). A research-based approach to generic graduate attributes policy. *Higher Education Research and Development*, 23(3), 261-275.
- Barrie, S.C. (2006). Understanding what we mean by the generic attributes of graduates. *Higher Education*, 51(1), 215-241.
- Barron, M., Philip Clarke, R., Elam, B., A, A. K., Shankar, A, R., & Visser, M. (2020). Gender and entrepreneurship in the renewable energy sector of Rwanda. *IDS Bulletin*, 51(1), 1-20.
- Bawakyillenuo, S., Akoto, I. O., Ahiadeke, C., Aryeetey, E. B., & Agbe, E. K. (2013). Tertiary education and industrial development in Ghana. *Working Paper*. University of Ghana, Accra: International Growth Centre.

- Bawuah, K., Buame, S., & Hinson, R. (2006). Reflections on entrepreneurship education in African tertiary institutions. *Acta Commercii*, 6(1), 1-9.
- Becker, G. S. (1975). Investment in human capital: effects on earnings. In *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, 2nd ed., 13-44.
- Behle, H. (2020). Students' and graduates' employability. A framework to classify and measure employability gain. *Policy reviews in higher education*, 4(1), 105-130.
- Bell, R. (2016). Unpacking the link between entrepreneurialism and employability. An assessment of the relationship between entrepreneurial attitudes and likelihood of graduate employment in a professional field. *Education + Training*, 58(1), 2-17.
- Bell, R., & Bell, H. (2020). Applying educational theory to develop a framework to support the delivery of experiential entrepreneurship education. *Journal of Small Business and Enterprise Development*, 27(6), 987-1004.
- Belwal, R., Priyadarshi, P., & Al Fazari, M. H. (2017). Graduate attributes and employability skills Graduates' perspectives on employers' expectations in Oman. *International Journal of Educational Management*, 31(6), 814-827.
- Benson, V., Morgan, S., & Filippaios, F. (2014). Social career management: Social media and employability skills gap. *Computers in Human Behavior*, 30, 519-525.
- Berman, E. A. (2017). An exploratory sequential mixed methods approach to understanding researchers' data management practices at UVM: Integrated findings to develop research data services. *Journal of eScience Librarianship*, 6(1), 1-24.
- Bezuidhout, M. (2011). *The development and evaluation of a Measure of Graduate employability in the context of the New world of work*. Unpublished master's dissertation submitted to the University of Pretoria, Pretoria.
- Bhattacharya, S., & Neelam, N. (2018). Perceived value of internship experience: A try before you leap. *Higher Education, Skills and Work-Based Learning*. 8(4), 376 – 391.

- Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices* (2nd ed.). Tampa, Florida: University of South Florida.
- Biasi, B., Deming, D. J., & Moser, P. (2021). *Education and innovation* (No. w28544). National Bureau of Economic Research
- Bigliardi, B. (2013). The effect of innovation on financial performance: A research study involving SMEs. *Innovation*, 15(2), 245-255.
- Bilsland, C., Carter, L., & Wood, L. N. (2019). Work integrated learning internships in transnational education: Alumni perspectives from Vietnam. *Education+ Training*, 61(3), 359 – 369.
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: a tool to enhance trustworthiness or merely a nod to validation? *Qualitative health research*, 26(13), 1802-1811.
- Blenker, P., Korsgaard, S., Neergaard, H., & Thrane, C. (2011). The questions we care about: Paradigms and progression in entrepreneurship education. *Industry and Higher Education*, 25, 417–427.
- Blenker, P., Trolle, S., Frederiksen, S. H., Korsgaard, S., & Wagner, K. (2014). Methods in entrepreneurship education research: A review and integrative framework. *Journal of Education and Training*, 56(8), 697-715.
- Blimpo, M., P., & Pugatch, T. (2020). Entrepreneurship education and teacher training in Rwanda. *IZA Institute of Labour Economics*, 13634, 1-66.
- Boahemaah, L., Xin, L., Dogbe, C. S. K., & Pomegbe, W. W. K. (2020). The impact of entrepreneurship education on the entrepreneurial intention of students in tertiary institutions. *International Journal of Management, Accounting and Economics*, 7(4), 123–146.
- Boateng, J. K., Eghan, A., & Adu, M. O. (2015). Quality assurance and employability of graduates in a Ghanaian University. *Journal of Education and e-Learning Research*, 2 (3), 42:51.
- Bohnert, A., Fredricks, J., & Randall, E. (2010). Capturing unique dimensions of youth organized activity involvement: Theoretical and methodological considerations. *Review of Educational Research*, 80(4), 576-610.

- Bollerot, P. (2001) Two actors in employability: The employer and the worker. *Employability from Theory to Practice – International Social Security Series*, 51-90.
- Boohene, R., Agyapong, D., & Asomaning, R. (2012). A micro level analysis of the market orientation-small business financial performance nexus. *International Journal of Business Management*, 7(23), 96-112.
- Borgen, C., & Dalgaard, B. R. (2021). Business education in the legacy of Hans Nielsen Hauge. In Ola Honningdal Grytten & Truls Liland (eds.), *The legacy of Hans Nielsen Hauge. Puritan economics, entrepreneurship, and management*. Bodoni Forlag, in cooperation with NLA, Bergen.
- Bracio, K., & Szarucki, M. (2020). Mixed methods utilisation in innovation management research: A systematic literature review and meta-summary. *Journal of Risk and Financial Management*, 13(11), 252.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Bridge, S., Hegarty, D., & Porter, S. (2010). Rediscovering enterprise: Developing appropriate university entrepreneurship education. *Education and Training*, 52(8), 722-734.
- Bridgestock, R. (2008). The graduate attributes we've overlooked: enhancing graduate employability through career management skills. *Higher Education Research and Development*, 28(1), 31-44.
- Bridgestock, R. (2009). The graduate attributes we've overlooked enhancing graduate employability through career management skills. *Higher Education Research and Development*, 28(1), 31-44.
- British Council (2014). Can higher education solve Africa's job crisis? Understanding graduate employability in Sub-Saharan Africa. *Going Global 2014*.
- British Council (2015). *Student perceptions of employability and inclusive development: South Africa*. London: British Council.
- British Council (2016). Universities, employability and inclusive development: Repositioning higher education in Ghana, Kenya, Nigeria and South Africa. *British Council*, 11(10).

- Britt, C., Ivankovich, M., Essah, S., & Fiscian, V. (2020). *USAID/Ghana gender analysis report*, (April), 1–114. Banyan Global: Washington.
- Bryman, A., & Bell, E. (2007). *Business research methods* (2nd ed.). Oxford: Oxford University Press.
- Bueckmann Diegoli, R., San Martín Gutiérrez, H., & García de los Salmones, M. D. M. (2018). Teachers as entrepreneurial role models: The impact of a teacher's entrepreneurial experience and student learning styles in entrepreneurial intentions. *Journal of Entrepreneurship Education*, 21(1), 1-11.
- 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.
- Callanan, G., & Benzing, C. (2004). Assessing the role of internships in the career-oriented employment of graduating college students. *Education + Training*, 46(2), 82-89.
- Cámara, F. J.R. (2018). *Entrepreneurial orientation, export performance and green innovation performance: The mediating effect of open innovation in SMEs*. Unpublished Doctoral Thesis submitted to the University of Portsmouth.
- Cardon, M. S., Foo, M., Shepherd, D., & Wiklund, J. (2012). Exploring the heart: Entrepreneurial emotion is a hot topic. *Entrepreneurship Theory and Practice*, 36(1), 1–10.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511-532.
- Carpenter, A., & Wilson, R. (2021). A systematic review looking at the effect of entrepreneurship education on higher education student. *The International Journal of Management Education*, 100541.
- Çera, E., & Çera, G. (2019). Does Entrepreneurship Education Impact Individuals' Entrepreneurial Propensity? A Pre-and Post-Program Setting. In *European Conference on Innovation and Entrepreneurship* (pp. 229-XVII). Academic Conferences International Limited.

- Cera, G., Mlouk, A., Cera, E., & Shumeli, A. (2020). The impact of entrepreneurship education on entrepreneurial intention. A quasi-experimental research design. *Journal of Competitiveness*, 12(1), 39-56.
- Chandrakumara, D.P.S. (2015). Modeling graduate employability in Sri Lanka using binary logistic regression. *International Journal of Multidisciplinary Research and Development*, 2(9), 326-333.
- Cherian, J., & Jacob, J. (2013). Impact of self-efficacy on motivation and performance of employees. *International Journal of Business and Management*, 8(14), 80-88.
- Cheung, G. W., & Wang, C. (2017). Current approaches for assessing convergent and discriminant validity with SEM: Issues and solutions. In *Academy of management proceedings*, 2017 (1), 12706). Briarcliff Manor, NY 10510: Academy of Management.
- Chhinzer, N., & Russo, A. M. (2017). An exploration of employer perceptions of graduate student employability. *Education+ Training*, 60(1), 104-120.
- Chimucheka, T. (2014). Entrepreneurship education in South Africa. *Mediterranean Journal of Social Sciences*, 5(2), 403-416.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189-217.
- Choi, Y., & Chang, S. (2020). The effect of social entrepreneurs' characteristics on resource acquisition and firm performance. *International Journal of Entrepreneurship*, 24(1), 1-18.
- Chrisman, J. J. (1997). Program evaluation and the venture development program at the University of Calgary: A research note. *Entrepreneurship Theory and Practice*, 22(1), 59-73.
- Chuan, C. L., & Penyelidikan, J. (2006). Sample size estimation using Krejcie and Morgan and Cohen statistical power analysis: A comparison. *Jurnal Penyelidikan IPBL*, 7(1), 78-86.
- Clemente, I., M., Giner, G., R., & Velez, G., S. (2020). Towards sustainability in university education. improving university graduates' chances of

- employability by participation in a high achievement academic program. *Sustainability*, 12(680), 1-17.
- Coelho, F. J. M., Marques, C., Loureiro, A., & Ratten, V. (2018). Evaluation of the impact of an entrepreneurship training program in Recife, Brazil. *Journal of Entrepreneurship in Emerging Economies*, 10(3), 472 – 482.
- Colombelli, A., Panelli, A., & Serraino, F. (2022). A learning-by-doing approach to entrepreneurship education: Evidence from a short intensive online international program. *Administrative Sciences*, 12(1), 16.
- Cooper, D. R., & Schindler, P. S. (2011). *Business research methods* (11th ed.). Boston: McGraw Hill.
- Córdoba-Pachón, J. R., Mapelli, F., Taji, F. N. A. A., & Donovan, D. M. (2021). Systemic creativities in sustainability and social innovation education. *Systemic Practice and Action Research*, 34, 251–267.
- Country Operations Department (2012). *Republic of Ghana Country Strategy Paper 2012-2016*. Africa Development Bank.
- Covin, J. G., & Miller, D. (2014). International entrepreneurial orientation: Conceptual considerations, research themes, measurement issues, and future research directions. *Entrepreneurship Theory and Practice*, 38(1), 11-44.
- Cram, F., & Mertens, D. M. (2015). Transformative and indigenous frameworks for multimethod and mixed methods research. In *The Oxford handbook of multimethod and mixed methods research inquiry*. Oxford: Oxford University Press.
- Cranmer, S. (2006). Enhancing graduate employability: Best intentions and mixed outcomes. *Studies in Higher Education*, 31 (2), 169-184.
- Crayford, J., Fearon, C., McLaughlin, H., & Van Vuuren, W. (2012). Affirming entrepreneurial education: Learning, employability and personal development. *Industrial and Commercial Training*, 44(4), 187-193.
- Creswell, J. W. (2011). *Designing and conducting mixed methods research* (2nd ed.). Los Angeles: Sage Publications.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Thousand Oaks, California: Sage Publications, Inc.
- Creswell, J. W. (2015). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. New York: Pearson.
- Creswell, J., & Pablo-Clark, V. (2011). *Designing and conducting mixed methods research* (2nd ed.). California: Thousand Oaks: Sage Publications, Inc.
- Dabbagh, N., & Menascé, D. A. (2006). Student perceptions of engineering entrepreneurship: An exploratory study. *Journal of Engineering Education*, 95(2), 153-164.
- Dadzie, C. E., Fumey, M., & Namara, S. (2020). *Youth employment programs in Ghana*. Washington, DC: World Bank.
- Dahmann, S. C., & Anger, S. (2014). *The impact of education on personality: Evidence from a German high school reform*. IAB-Discussion Paper, No. 29/2014, Institut für Arbeitsmarkt- und Berufsforschung (IAB), Nürnberg.
- Dai Kosi, A., Tsadidey, S., Ashiagbor, I., & Baku, M. D. (2008). Graduate unemployment in Ghana: Possible case of poor response of university programs to the demands of the job market. Ghana: *ERNWACA Research Report*.
- Damoah, O. B. O., Peprah, A. A., & Brefo, K. O. (2021). Does higher education equip graduate students with the employability skills employers require? The perceptions of employers in Ghana. *Journal of Further and Higher Education*, 45(10), 1311-1324.
- Dania, J., Bakar, A. R., & Mohamed, S. (2014). Factors influencing the acquisition of employability skills by students of selected technical secondary school in Malaysia. *International Education Studies*, 7(2), 117-124.
- David, S. L., Hitchcock, J. H., Ragan, B., Brooks, G., & Starkey, C. (2018). Mixing interviews and rasch modelling: Demonstrating a procedure used to develop an instrument that measures trust. *Journal of Mixed Methods Research*, 12(1), 75-94.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331.

- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Online Submission*, 2(2), 25-36.
- de Mello Macedo, K. B., Schneider Hahn, I., Bianchi, J., & Silva Ogoshi, R. C. (2020). Entrepreneurial skills and its relationship with MSMES performance. *Brazilian Journal of Management/Revista de Administração da UFSM*, 13.
- de Sousa, M. M., de Almeida, D. A. R., Mansur-Alves, M., & Huziwar, E. M. (2022). Characteristics and effects of entrepreneurship education programs: A systematic review. *Trends in Psychology*, 1-31.
- Deacon, J., & Harris, J. (2011). A longitudinal reflection of blended/reflexive enterprise and entrepreneurial education. *Reflective Practice*, 12(5), 599-613.
- Demir, S. B., & Pismek, N. (2018). A convergent parallel mixed-methods study of controversial issues in social studies classes: A clash of ideologies. *Journal of Educational Sciences: Theory and Practice*, 18(1), 119-149.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The SAGE handbook of qualitative research*. Sage Publications Inc: London
- Derera, E. (2015). *Women's economic empowerment and entrepreneurship in agriculture: A case of Mashonaland West Province in Zimbabwe*. Unpublished PhD thesis submitted to the University of Kwazulu-Natal.
- Doğan, E. (2015). The effect of entrepreneurship education on entrepreneurial intentions of university students in Turkey. *Istanbul University Econometrics and Statistics E-Journal* (23), 79-93.
- Dohse, D., & Walter, S. G. (2012). Knowledge context and entrepreneurial intentions among students. *Small Business Economics*, 39(4), 877-895.
- Donkor, P., Ding, Y., & Adu-Boateng, G. (2019). The effect of parental economic expectation on gender disparity in secondary education in Ghana: A propensity score matching approach. *Sustainability*, 11(23), 6707.
- Drever, E. (2010). *2008-2009 Citizenship survey: Volunteering and charitable giving topic guide*. London: CLG.
- Drost, E. (2011). Validity and reliability in social science research. *Education Research and Perspectives*, 38, 105-123.

- Duflo, E., Dupas, P., & Kremer, M. (2021). *The impact of free secondary education: Experimental evidence from Ghana* (No. w28937). Cambridge: Bureau of Economic Research.
- Dunne, J. (2021). What's the Good of Education? In Wilfred Carr (eds.), *The RoutledgeFalmer reader in philosophy of education* (pp. 145–160). London: Routledge.
- Duval-Couetil, N. (2013). Assessing the impact of entrepreneurship education programs: Challenges and approaches. *Journal of Small Business Management*, 51 (3), 394-409.
- Dyer, J. H., Gregersen, H. B., & Christensen, C. M. (2009). The innovator's DNA. *Harvard Business Review*, 87 (12), 60-67.
- Dzisi, S. (2014). Entrepreneurship education: Towards an innovative approach. *Journal of Education and Practice*, 5(20), 154-164.
- Ebner, K., Soucek, R., & Selenko, E. (2021). Perceived quality of internships and employability perceptions: The mediating role of career-entry worries. *Education+ Training*.
- Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of research on adolescence*, 21(1), 225-241.
- Egbe-Okpenge, E. G. & Igbo, H. I. (2013). Relationship between counselling and entrepreneurship development skills of Nigerian final year undergraduates. *Procedia - Social and Behavioral Sciences*, 84 (2013), 120-127.
- Egbetokun, A., Siyanbola, W., Olamide, O., Adeniyi, A., & Irefin, I. (2008). Innovation in Nigerian SMEs: Types and impact. *MPRA Paper 25338*.
- Ekinci, Y. (1999). *An examination of generic service quality criteria for the evaluation of hotels*. Unpublished PhD thesis submitted to the University of Surrey, London.
- El Shafeey, T., & Trott, P. (2014). Resource-based competition: Three schools of thought and thirteen criticisms. *European Business Review*, 26(2), 122-148.
- Elechi, G. E. (2013). Transformation of university education for graduate employability in Nigeria: The intervention of entrepreneurship education. *Journal of Education and Practice*, 4(15), 135-139.

- Elert, N., Andersson, F. W., & Wennberg, K. (2015). The impact of entrepreneurship education in high school on long-term entrepreneurial performance. *Journal of Economic Behavior & Organization*, 111, 209-223.
- El-Gohary, H., O'Leary, S., & Radway, P. (2012). Investigating the impact of entrepreneurship online teaching on science and technology degrees on students attitudes in developing economies: the case of Egypt. *International Journal of Online Marketing (IJOM)*, 2(1), 25-37.
- English, P., de Villiers Scheepers, M. J., Fleischman, D., Burgess, J., & Crimmins, G. (2021). Developing professional networks: the missing link to graduate employability. *Education+ Training*, 63(4), 647-661.
- Enninful, E., Boakye-Amponsah, A., & Ndure, K. (2016). Analysis of barriers to start-up business among graphic design graduates of Takoradi Polytechnic, Ghana. *International Journal of Academic Research in Business and Social Sciences*, 6(6), 76-93.
- Estrin, S., Mickiewicz, T., & Stephan, U. (2016). Human capital in social and commercial entrepreneurship. *Journal of Business Venturing*, 31(4), 449-467.
- European Commission (2012). *Effects and impacts of entrepreneurship programmes in higher education*. Brussel: European Commission:
- European Union (2017). *EntreComp: The entrepreneurship competence framework*. Luxembourg: Publication Office of the European Union.
- Fahimirad, M., Nair, P. K., Kotamjani, S. S., Mahdinezhad, M., & Feng, J. B. (2019). Integration and development of employability skills into Malaysian Higher Education Context: Review of the literature. *International Journal of Higher Education*, 8(6), 26-35.
- Falkäng, J., & Alberti, F. (2000). The assessment of entrepreneurship education. *Industry and Higher education*, 14(2), 101-108.
- Farrukh, M., Raza, A., Sajid, M., Rafiq, M., Hameed, R., & Ali, T. (2021). Entrepreneurial intentions: the relevance of nature and nurture. *Education+ Training*, 63(7-8), 1195-1212.

- Faryadi, Q. (2019). PhD Thesis Writing Process: A Systematic Approach--How to Write Your Methodology, Results and Conclusion. *Online Submission*, 10, 766-783.
- Fatoki, O. (2014). The causes of the failure of new small and medium enterprises in South Africa. *Mediterranean Journal of Social Sciences*, 5(20), 922-927.
- Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32(7), 569-593.
- Fayolle, A., & Gailly, B. (2013). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75-93.
- Fayolle, A., Kyrö, P., & Liñán, F. (Eds.). (2015). *Developing, shaping and growing entrepreneurship*. Cheltenham: Edward Elgar Publishing.
- Felin, T., Zenger, T. R., & Tomsik, J. (2009). The knowledge economy: Emerging organizational forms, missing micro-foundations, and key considerations for managing human capital. *Human Resource Management*, 48 (4), 555-570.
- Ferreras-Garcia, R., Hernández-Lara, A. B., & Serradell-López, E. (2020). Gender and learning results: A study on their relationship in entrepreneurship education and business plans. *Studies in Higher Education*, 2355–2370.
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs - Principles and practices. *Health Services Research*, 48(6), 2134-2156.
- Ferreira, F. M., & Pinheiro, C. R. M. S. (2018). Circular business plan: Entrepreneurship teaching instrument and development of the entrepreneurial profile. *Gestao & Producao*, 25, 854-865.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Foster, B. (2018). An investigation on entrepreneurial competencies of creative industry in Bandung, Indonesia. *International Journal of Research in Business and Social Science*, 7(3), 10-17.

- Foubert, J. D., & Grainger, L. U. (2006). Effects of involvement in clubs and organizations on the psychosocial development of first-year and senior college students. *NASPA Journal*, 43(1), 166-182.
- Fraser-Mackenzie, E. (2019). *Journeying through confidence: A grounded theory study exploring women's confidence for birth*. Unpublished Doctoral dissertation submitted to the University of Southampton, Southampton.
- Frost, N. (2011). *Qualitative research methods in psychology: Combining core approaches*. Open University Press.
- Frye, H., Ketteridge, S., & Marshall, S. (2009). *A handbook for teaching and learning in higher education; Enhancing academic practice*. London: Routledge.
- Fulgence, K. (2015). *Employability of higher education institutions graduates: exploring the influence of entrepreneurship education and employability skills development program activities in Tanzania*. Unpublished thesis submitted to the University of Siegen.
- Fulgence, K. (2015). Factors influencing graduate's recruitment decisions: The case of Tanzania corporate recruiters, *Academy of Educational Leadership Journal*, 19 (1), 195-216.
- Gafar, M., Kasim, R., & Martin, D. (2014). Is the impact of entrepreneurship education as remarkable as the demand. In *Proceeding of International Conference on the Emerging Trends in Scientific Research*.130-144.
- Galloway, L., Kapasi, I. & Whittman, G. (2015). Exploring successful outcomes of entrepreneurship education: A follow up study. *Industry & Higher Education*, 29(6), 1- 11.
- Ganiyu, I. O. (2018). *A conceptual framework to measure the effectiveness of work-life balance strategies in selected manufacturing firms, Lagos Metropolis, Nigeria*. Unpublished PhD thesis submitted to the University of Kwazulu-Natal.
- Garwe, E.C. (2013). Holistic initiatives for enhancing graduate employability in Zimbabwe. *Research in Higher education Journal*, 1-12.
- Gassman, J., Reed, D., & Widner, A. (2014). Student association activities contribute to leadership development of students in nonprofit management and

- leadership. *The Journal of Nonprofit Education and Leadership*, 4(2), 92-113.
- Gefen, D., Straub, D., & Boudreau, M. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(1), 1-78.
- Gerschewski, S., Lindsay, V. J., & Rose, E. (2016). Advancing the entrepreneurial orientation construct: the role of passion and perseverance. *Review of International Business and Strategy*, 26(4), 446-471.
- Gibb, A. (2008). Entrepreneurship and enterprise in schools and colleges: Insights from UK practice. *International Journal of Entrepreneurship education* 6, 1-47.
- Gimeno, J, Folta, T. B, Cooper, A. C, & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42, 750-783.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607.
- Gore, T. (2005) Extending employability or solving employers' recruitment problems? Demand-led approaches as an instrument of labour market policy. *Urban Studies*. 42(2), 341-353.
- Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International small business journal*, 15(3), 56-77.
- Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In *Handbook of partial least squares* (pp. 691-711). Springer, Berlin, Heidelberg.
- Graevenitz, G. V., Harhoff, D., & Weber, R. (2009). The effects of entrepreneurship education. *GESY Discussion Paper*, 269.
- Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior and Organization*, 76(1), 90-112.

- Green, F., & Henseke, G. (2021). Europe's evolving graduate labour markets: Supply, demand, underemployment and pay. *Journal for Labour Market Research*, 55(1), 1-13.
- Greene, F. J., & Saridakis, G. (2008). The role of higher education skills and support in graduate self-employment. *Studies in Higher Education*, 33(6), 653-672.
- Griffiths, D. A., Inman, M., Rojas, H., & Williams, K. (2018). Transitioning student identity and sense of place: future possibilities for assessment and development of student employability skills. *Studies in Higher Education*, 43(5), 891-913.
- Guilbert, L., Bernaud, J. L., Gouvernet, B., & Rossier, J. (2016). Employability: review and research prospects. *International Journal for Educational and Vocational Guidance*, 16(1), 69-89.
- Gupta, G., Tan, K. T. L., Ee, Y. S., & Phang, C. S. C. (2018). Resource-based view of information systems: Sustainable and transient competitive advantage perspectives. *Australasian Journal of Information Systems*, 22, 1-9.
- Gurel, E., Madanoglu, M., & Altinay, L. (2021). Gender, risk-taking and entrepreneurial intentions: Assessing the impact of higher education longitudinally. *Education+ Training*, 63(5), 777-792.
- Guzmán-Cuevas, J., Cáceres-Carrasco, R., & Riberio-Soriano, D. (2009). Functional dependence and productive dependence of SMEs. *Small Business Economics*, 32(3), 317-330.
- Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101-110.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26, 106-121.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River: Pearson Education.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: A comparative evaluation of composite-based structural

- equation modelling methods. *Journal of the Academy of Marketing Science*, 45(5), 616-632.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, 40(3), 414-433.
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems*, 117(3), 442-458.
- Halcomb, E. J., & Hickman, L. (2015). Mixed methods research. *Nursing Standard: Promoting Excellence in Nursing Care*, 29(32), 41-47.
- Hamlin, B. (2015). Paradigms, philosophical prisms and pragmatism in HRD research. In *Handbook of research methods on human resource development*. Cheltenham: Edward Elgar Publishing.
- Hanushek, E. A., & Zhang, L. (2009). Quality-consistent estimates of international schooling and skill gradients. *Journal of Human capital*, 3(2), 107-143.
- Harvey, L. (2001) *Enhancing employability and recognising diversity: Making links between higher education and the world of work*. London: Higher Education Careers Service Unit.
- Hashim, N. A. B., Raza, S., & Minai, M. S. (2018). Relationship between entrepreneurial competencies and small firm performance: are dynamic capabilities the missing link? *Academy of Strategic Management Journal*, 17(2), 1-10.
- Hatak, I., & Zhou, H. (2021). Health as human capital in entrepreneurship: individual, extension, and substitution effects on entrepreneurial success. *Entrepreneurship Theory and Practice*, 45(1), 18-42.
- Heckman, J. J., & Rubinstein, Y. (2001). The importance of noncognitive skills: Lessons from the GED testing program. *American Economic Review*, 91(2), 145-149.
- Heinonen, J., & S. Poikkijoki. (2006). An entrepreneurial-directed approach to entrepreneurship education: mission impossible? *Journal of Management Development*, 25(1), 88-94.

- Henseler, J., & Schubert, F. (2020). Using confirmatory composite analysis to assess emergent variables in business research. *Journal of Business Research*, 120, 147-156.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Heyden, M. L., Fourné, S. P., Koene, B. A., Werkman, R., & Ansari, S. (2017). Rethinking 'top-down' and 'bottom-up' roles of top and middle managers in organizational change: Implications for employee support. *Journal of Management Studies*, 54(7), 961-985.
- Hickie, J. (2013). *A study of human capital development in young entrepreneurs*. Unpublished Doctor of Philosophy thesis submitted to the Loughborough University.
- Hilkenmeier, F., Bohndick, C., Bohndick, T., & Hilkenmeier, J. (2020). Assessing distinctiveness in multidimensional instruments without access to raw data—a manifest Fornell-Larcker criterion. *Frontiers in psychology*, 11, 223.
- Hillage, J. & Pollard, E. (1998) Employability: Developing a framework for policy analysis. *Research Report RR85*. London: Department for Education and Employment.
- Hilson, G. & Potter, C. (2005). Structural adjustment and subsistence industry: artisanal gold mining in Ghana. *Development and Change*, 36(1); 103-131.
- Hirst, A. (2001). Links between volunteering and employability. *Research Report RR309*. London: Department for Education and Skills.
- Hmieleski, K. M., & Corbett, A. C. (2008). The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction. *Journal of business venturing*, 23(4), 482-496.
- Hoang, G., Le, T. T. T., Tran, A. K. T., & Du, T. (2020). Entrepreneurship education and entrepreneurial intentions of university students in Vietnam: The mediating roles of self-efficacy and learning orientation. *Education+ Training*, 63(1), 115-133.

- Holdsworth, C., & Quinn, J. (2010). Student volunteering in english higher education. *Studies in Higher Education*, 35(1), 113-127.
- Holmes, L. (2013) Competing perspectives on graduate employability: possession, position or process? *Studies in Higher Education*, 38(4), 538-554.
- Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of Management Learning & Education*, 3(3), 258-273.
- Hoskins, B., Leonard, P., & Wilde, R. (2020). How effective is youth volunteering as an employment strategy? A mixed methods study of England. *Sociology*, 54(4), 763-781.
- Hossain, M. M., Alam, M., Alamgir, M., & Salat, A. (2020). Factors affecting business graduates' employability—empirical evidence using partial least squares (PLS). *Journal of Education and Training*, 62, 292-310.
- Hoyos-Ruperto, D., Romaguera, J. M., Carlsson, B., & Lyytinen, K. (2013). Networking: A critical success factor for entrepreneurship. *American Journal of Management*, 13(2), 55-72.
- Huntington, H. E. (2017). *The affect and effect of internet memes: Assessing perceptions and influence of online user-generated political discourse as media*. Unpublished Doctoral dissertation submitted to the Colorado State University.
- Huq, A., & Gilbert, D. H. (2013). Enhancing graduate employability through work-based learning in social entrepreneurship: A case study. *Education+ Training*, 55(6), 550-572.
- Hwang, W. S., Choi, H., & Shin, J. (2020). A mediating role of innovation capability between entrepreneurial competencies and competitive advantage. *Technology Analysis & Strategic Management*, 32(1), 1–14.
- Hytti, U., & O’Gorman, C. (2004). What is enterprise education? An analysis of the objectives and methods of enterprise education programmes in four European countries. *Education+ training*, 46, 11-23.
- Ibrahim, H., Zin, M. L. M., & Vengdasamy, P. (2020). The influence of individual characteristics, training content and manager support on on-the-job training

- effectiveness. *The Journal of Asian Finance, Economics, and Business*, 7(11), 499-506.
- Ibrahim, W. N. A., Bakar, A., Asimiran, S., Mohamed, S., & Zakaria, N. S. (2015). Impact of entrepreneurship education on the entrepreneurial intentions of students in technical and vocational education and training institutions (TVET) in Malaysia. *International Education Studies*, 8(12), 141-156.
- Ilemona, A., Akoji, O., & Matthew, A. (2013). Alleviating poverty through the use of entrepreneurship skill acquisition in Kogi State, Nigeria. *Aceh International Journal of Social Science*, 2(1), 01-10.
- International Labour Organization (ILO) (2020). *Report on employment in Africa (Re-Africa). Tackling the youth employment challenge*. Geneva: ILO
- Ismail, M., Khalid, S. A., Othman, M., Jusoff, H. K., Rahman, N. A., Kassim, K. M., & Zain, R. S. (2009). Entrepreneurial intention among Malaysian undergraduates. *International Journal of Business and Management*, 4(10), 54–60.
- Ismail, N., Kinchin, G., & Edwards, J.-A. (2018). Pilot study, does it really matter? Learning lessons from conducting a pilot study for a qualitative PhD thesis. *International Journal of Social Science Research*, 6(1), 1–17.
- Ismail, T. (2012). The development of entrepreneurial social competence and business network to improve competitive advantage and business performance of small medium sized enterprises: a case study of batik industry in Indonesia. *Procedia-Social and Behavioural Sciences*, 65, 46–51.
- Ivaniushina, V. A., & Zapletina, O. O. (2015). Participation in extracurricular activities and development of personal and interpersonal skills in adolescents. *Journal of Siberian University*, 8, 2408-2420.
- Izuchi, M., N., & Obed, O., O. (2017). Influence of guidance and counselling on development of entrepreneurial skills among technical college students in rivers state. *British Journal of Education*, 5(2), 21-32.
- Jackson, D. (2013) An international profile of industry-relevant competencies and skill gaps in modern graduates. *International Journal of Management Education*, 8(3), 29-58.

- Jackson, L. W. (2009). Educate the Women and You Change the World: Investing in the Education of Women Is the Best Investment in a Country's Growth and Development. In *Forum on Public Policy Online* (Vol. 2009, No. 2). Oxford Round Table. 406 West Florida Avenue, Urbana, IL 61801.
- Jaenudin, A., Octavilona, C. G., & Astuti, D. P. (2022). Entrepreneur Skills as an Effort to Increase Entrepreneurial Intentions through Entrepreneurship Education. In *2nd International Conference of Strategic Issues on Economics, Business and, Education (ICoSIEBE 2021)* (pp. 166-172). Amsterdam: Atlantis Press.
- Jeon, E. H. (2015). Multiple regression. In *advancing quantitative methods in second language research* (pp. 131-158). London: Routledge.
- 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.
- Johannisson, B. (2010). In the beginning was entrepreneuring. In *(De) Mobilizing the entrepreneurship discourse* (pp. 201-223). Cheltenham: Elgar Publishing.
- Johannisson, B., Landstrom, H., & Rosenberg, J. (1998). University training for entrepreneurship – An action frame of reference. *European Journal of Engineering Education*, 23(4), 477-496.
- Johnson, B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches*. Thousand Oaks, CA: Sage Publications.
- Jonck, P., & Van der Walt, F. (2015). Graduate employability skills: Differences between the private and the public sector in South Africa. *Mediterranean Journal of Social Sciences*, 6(3 S2), 345-345.
- Jones, B., & Iredale, N. (2010). Enterprise education as pedagogy. *Education+ training*, 52(1), 7-19.
- Jones, C., & English, J. (2004). *A contemporary approach to entrepreneurship education*. *Education+ training*, 46(8/9), 416-423.
- Jones, P., Jones, A., Packham, G. and Miller, C. (2008). Student attitudes towards enterprise education in Poland: A positive impact. *Education + Training*, 50(7), 597-614.

- Jones, P., Pickernell, D., Connolly, R., & Netana, C. (2019). Providing effective entrepreneurship education: A UK perspective. In *The Role and Impact of Entrepreneurship Education*. Edward Elgar Publishing. 59(78), 689-701.
- Juhdi, N., Pa'wan, F., & Hansaram, R. (2015). Employers' experience in managing high potential employees in Malaysia. *Journal of Management Development*, 34(2), 187-201.
- Jumpah, E. T., Ampadu-Ameyaw, R., & Owusu-Arthur, J. (2020). Youth employment in Ghana: Economic and social development policies perspective. *World Journal of Entrepreneurship, Management and Sustainable Development*, 16, 413-427.
- Kadile, V., & Biraglia, A. (2016). Fermenting a business: Investigating environmental antecedents of entrepreneurial alertness among American homebrewers using fuzzy set analysis. In *2016 Global Marketing Conference at Hong Kong*, 1260-1261.
- Kalani, H., Rani, R., Shah, B. Z., Dahar, M. R., Joher, S., & Shiyi, C. (2022). Entrepreneurship education in European Higher Education Institutions (HEIS): Development, Issues & Scope. *PONTE International Journal of Science and Research*, 78(1).
- Kalyoncuoğlu, S., Aydın, B., & Göksel, A. (2017). The effect of entrepreneurship education on entrepreneurial intention: An experimental study on undergraduate business students. *Journal of Management Research*, 9(3), 72-91.
- Karunaratne, K., & Perera, N. (2019). Students' perception on the effectiveness of industrial internship programme. *Education Quarterly Reviews*, 2(4), 822-832.
- Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8(9), 255.
- Kavita P.S (2020). *The impact of entrepreneurship education on entrepreneurial intention: an empirical study of entrepreneurship education's four key characteristics*. Unpublished Doctor of Philosophy Thesis submitted to the Brunel University, London.

- Kay, T., & Bradbury, S. (2009). Youth sport volunteering: Developing social capital. *Sport, Education and Society*, 14(1), 121-140.
- Keinänen, M. M., & Kairisto-Mertanen, L. (2019). *Researching learning environments and students' innovation competences*. Education+ Training, 6(1), 17-30.
- Kelly, L. M., & Cordeiro, M. (2020). Three principles of pragmatism for research on organizational processes. *Methodological innovations*, 13(2), 1-10.
- Kevill, A., Trehan, K., & Easterby-Smith, M. (2017). Perceiving 'capability' within dynamic capabilities: The role of owner-manager self-efficacy. *International Small Business Journal*, 35(8), 883-902.
- Khan, K. A., Çera, G., & Nétek, V. (2019). Perception of the selected business environment Aspects by service firms. *Journal of Tourism and Services*, 10(19), 111-127.
- Kiger, M. E., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical teacher*, 42(8), 846-854.
- Kim, G. (2012). *Graduate employability in Asia*. Bangkok: UNESCO.
- Kincheloe, J. L., & McLaren, P. L. (2005). Rethinking Critical Theory and Qualitative Research. In N. K. Denzin, & Y. S. Lincoln, *The Sage Handbook of Qualitative Research* (pp. 303–342). Thousand Oaks: Sage Publications Ltd.
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26-41.
- Kleeman, A. P. (2011). *Employer perceptions: An exploratory study of employability skills expected of new graduates in the hospitality industry*. Orlando, Florida: University of Central Florida.
- Klein, P. G. (2008). Opportunity discovery, entrepreneurial action, and economic organization. *Strategic Entrepreneurship Journal*, 2(3), 175-190.
- Knight, P. & Yorke, M. (2000). Skills plus: Tuning the undergraduate curriculum. *Skills Plus Project Report*. 95-105.

- König, L. S., Juric, P. M., & Koprivnjak, T. (2016). Graduate employability: A gap between perspectives—the Case of Croatia. *Advances in Economics and Business*, 4(10), 525-538.
- Kornelakis, A., & Petrakaki, D. (2020). Embedding employability skills in UK higher education: Between digitalization and marketization. *Industry and Higher Education*, 34(5), 290-297.
- Korzhov, H., & Pasko, Y, (2020). Entrepreneurship education as a factor of society's modernization, *SHS Web of Conferences*, 75, 1-10.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Delhi: New Age International Publishers.
- Kotte, R., & Lind, G. (2015). *Does debt make you rich? An empirical study of the effect leverage has on Stock>Returns*. Unpublished Master Thesis submitted to the Lund University.
- Kozlinska, I. (2016). *Evaluation of the outcomes of entrepreneurship education revisited: Evidence from Estonia and Latvia*. Unpublished PhD Thesis submitted to the University of Tartu.
- Kravia, K., & Pagliano, P. (2015). Using a transformative paradigm research approach to investigate guidance and counselling service in Papua New Guinea Schools. *eTropic: electronic journal of studies in the Tropics*, 14(1), 98-110.
- Kravia, K., K., (2016). *Using a transformative paradigm research approach to investigate guidance and counselling services in Papua New Guinea schools*. Professional Research thesis to the James Cook University.
- Krejche, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Kucel, A., Masferrer Llabínés, N., & Vilalta-Bufí, M. (2013). Entrepreneurial skills and over-education five years later. A comparison between Spain and the Netherlands. *Documents de treball (Facultat d'Economia i Empresa. Espai de Recerca en Economia)*, 2013, E13/293.
- Kulshrestha, D. (2013). Relationship between economic growth and public expenditure through Wagner's law: an analytical study in Indian

- perspective. *International Journal of Entrepreneurship & Business Environment Perspectives*, 2(4), 627.
- Kumar, R. (2019) *Research methodology: A step-by-step guide for beginners* (5th ed). Los Angeles: Sage Publications.
- Kurczewska, A., & Bialek, J. (2014). Is the interplay between self-efficacy and entrepreneurial intentions gender-dependent? *Argumenta Oeconomica*, 33(2), 23–38.
- Kuzminov, Y., Sorokin, P., & Froumin, I. (2019). Generic and specific skills as components of human capital: *New challenges for education theory and practice*, 13(2), 17 – 37.
- Kvale, S., & Brinkmann, S. (2009). *Interviews learning the craft of qualitative research interviewing*. Los Angeles: Sage Publications.
- Kvalheim, O. M., Grung, B., & Rajalahti, T. (2019). Number of components and prediction error in partial least squares regression determined by Monte Carlo resampling strategies. *Chemometrics and Intelligent Laboratory Systems*.
- Kyndt, E., & Baert, H. (2015). Entrepreneurial competencies: Assessment and predictive value for entrepreneurship. *Journal of Vocational Behavior*, 90, 13–25.
- Laaksonen, L., Ainamo, A., & Karjalainen, T. M. (2011). Entrepreneurial passion: An explorative case study of four metal music ventures. *Journal of Research in Marketing and Entrepreneurship*, 13(1), 18-36.
- Lackéus, M. (2013). *Developing entrepreneurial competencies: An action-based approach and classification in entrepreneurial education*. Gothenburg: Chalmers University of Technology.
- Lackéus, M. (2014). An emotion-based approach to assessing entrepreneurial education. *International Journal of Management Education*, 12(3), 374-396.
- Lackéus, M. (2015). Entrepreneurship in education, what, why, when, how. *Entrepreneurship 360 background paper*. Paris: OECD.

- Lackéus, M. (2020). Comparing the impact of three different experiential approaches to entrepreneurship in education. *International Journal of Entrepreneurial Behavior & Research*, 26(5), 937–971.
- Laguía, A., Moriano, J. A., & Gorgievski, M. J. (2019). A psychosocial study of self-perceived creativity and entrepreneurial intentions in a sample of university students. *Thinking Skills and Creativity*, 31, 44–57.
- Laguna, M., Wiechetek, M., & Talik, W. (2012). The competencies of managers and their business success. *Central European Business Review*, 1(3), 7-13.
- Lang, J. J., Larouche R., & Tremblay M. S. (2019). The association between physical fitness and health in a nationally representative sample of Canadian children and youth aged 6 to 17 years. *Health Promotion and Chronic Disease Prevention Canada: Research, Policy and Practice*, 39(3), 104–111.
- Lapiņa, I., & Ščeulovs, D. (2014). Employability and skills anticipation: Competences and market demands. *Procedia-Social and Behavioral Sciences*, 156, 404-408.
- Lau, H., Hsu, H., Acosta, S., & Hsu, T. (2013). Impact of participation in extra-curricular activities during college on graduate employability: an empirical study of graduates of Taiwanese business schools. *Educational Studies*, 1-22.
- Lauder, H., & Mayhew, K. (2020). Higher education and the labour market: an introduction. *Oxford Review of Education*, 46(1), 1-9.
- Laukkanen, M. (2000). Exploring alternative approaches in high-level entrepreneurship education: Creating micro-mechanisms for endogenous regional growth. *Entrepreneurship and Regional Development*, 12(1), 25–47.
- Lazar, N., & Paul, G. (2015). Entrepreneurial competencies in a business enterprise—An overview. *International Journal of Scientific Research*, 4(1), 226-227.
- Leavy, P. (2017). *Research design. Quantitative, qualitative, mixed methods, art-based, and community-based participatory research approach*. London: The Guilford Press.
- Lee, R. M., & Yuan, Y. S. (2018). Innovation education in China: Preparing attitudes, approaches, and intellectual environments for life in the automation

- economy. In Nancy W. Gleason (eds.), *Higher education in the era of the fourth industrial revolution* (pp. 93–119). Singapore: Palgrave Macmillan.
- Lepoutre, J., Berghe V. D. W., Tilleuil, O. & Crijns, H. (2010). *A new approach to testing the effects of entrepreneurship education among secondary school pupils*. Vlerick Leuven Gent Management School.
- Li, C., Murad, M., Shahzad, F., Khan, M. A. S., Ashraf, S. F., & Dogbe, C. S. K. (2020). Entrepreneurial passion to entrepreneurial behavior: role of entrepreneurial alertness, entrepreneurial self-efficacy and proactive personality. *Frontiers in Psychology*, 11(1611), 1–19.
- Li, Z., & Liu, Y. (2011). Entrepreneurship education and employment performance: An empirical study in Chinese university. *Journal of Chinese Entrepreneurship*, 3(3), 195-203.
- Lin, Z., & Huang, Y. (2015). Fiscal and Financial Policy Design on Entrepreneurial Economic Development Government Supports. In *2015 International conference on Engineering Management, Engineering Education and Information Technology*. 208-215.
- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907-933.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, Inc.
- Liszt-Rohlf, V., Fields, M., Gerholz, K. H., Seco, V., & Haury, C. (2021). The Benefits of Volunteering, Volunteers' Competencies, and Their Integration into Business Education. *International Journal for Business Education*, 161, 74-94.
- Lochmiller, C. R. (2021). Conducting Thematic Analysis with Qualitative Data. *Qualitative Report*, 26(6), 2029-2044.
- Longva, K. K. (2019). *The impact of entrepreneurship education on students' career reflections*. Unpublished Doctor of Philosophy thesis submitted to The Arctic University of Norway.

- Longva, K. K., & Foss, L. (2018). Measuring impact through experimental design in entrepreneurship education: A literature review and research agenda. *Industry and Higher Education*, 32(6), 358-374.
- López Bermúdez, B., Oliveira Silva, C. S., & Freire-Seoane, M. J. (2021). Relationship between education level and holding a full-time or part-time employment (Portugal 2006-2016). *Studies of Applied Economics*, 39(2).
- Lorz M., Mueller S., & Volery T. (2013). Entrepreneurship education: A systematic review of the methods in impact studies. *Journal of Enterprising Culture*, 21 (2), 123 – 151.
- Lorz, M., & Volery, T. (2011). The impact of entrepreneurship education on entrepreneurial intention. *University of St. Gallen*.
- Lorz, M., Müller, S., & Volery, T. (2011). Entrepreneurship education: A meta analysis of impact studies and applied methodologies. *FGF G-Forum*, 2011.
- Lowden, K., Hall, S., Elliot, D., & Lewin, J. (2011). *Employers' perceptions of the employability skills of new graduates*. London: Edge Foundation.
- Louangrath, P.I. (2017). Minimum sample size method based on survey scales. *International Journal of Research & Methodology in Social Sciences*, 3(3), 44-52.
- Lundqvist, M., & Middleton, K. W. (2013). Academic entrepreneurship revisited: university scientists and venture creation. *Journal of Small Business and Enterprise Development*, 20(3), 603-617.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel psychology*, 60(3), 541-572.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate — Employee performance relationship. *Journal of Organizational Behaviour: The International Journal of Industrial, Occupational and Organizational Psychology and Behaviour*, 29(2), 219-238.

- 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.
- Lyons, E., & Zhang, L. (2018). Who does (not) benefit from entrepreneurship programs? *Strategic Management Journal*, 39(1), 85-112.
- Maarouf, H. (2019). Pragmatism as a supportive paradigm for the mixed research approach: Conceptualizing the ontological, epistemological, and axiological stances of pragmatism. *International Business Research*, 12(9), 1-12.
- Mabrouk, S. H., & Jawad, R. M. A. (2020). The role of extracurricular activities in developing the skills of the twenty-first century for students in light of KSA 2030 vision. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 9962-9980.
- Mahadalle, A., & Kaplan, D. (2017). Entrepreneurial characteristics and competencies as determinants of corporate performance: A study on small enterprises in mogadishu, somalia. *International Journal of Research-Granthaalayah*, 5(5), 243-254.
- Mainga, W., Daniel, R. M., & Alamil, L. (2022). Perceptions of employability skills of undergraduate business students in a developing country: An exploratory study. *Higher Learning Research Communications*, 12(1), 2, 28-63.
- Mainga, W., Murphy-Braynen, M. B., Moxey, R., & Quddus, S. A. (2022). Graduate employability of business students. *Administrative Sciences*, 12(3), 72.
- Mäkimurto-Koivumaa, S., & Belt, P. (2016). About, for, in or through entrepreneurship in engineering education. *European Journal of Engineering Education*, 41(5), 512-529.
- Makombe, G. (2017). An expose of the relationship between paradigm, method and design in research. *The Qualitative Report*, 22(12), 3363-3383.
- Malebana, M. J., & Swanepoel, E. (2015). Graduate entrepreneurial intentions in the rural provinces of South Africa. *Southern African Business Review*, 19(1), 89-111.
- Malecki, E. J. (2018). Entrepreneurship and entrepreneurial ecosystems. *Geography Compass*, 12(3), 1-24.

- Malekipour, A., Hakimzadeh, R., Dehghani, M., & Mohmad R. Z. (2021). Analysis of entrepreneurial competency training in the curriculum of bachelor of physical education in universities in Iran. *Cogent Education*, 5(1, 1462423),1-15.
- Malhotra, N. K. (2010). *Marketing research: An applied orientation* (6th ed.). Harlow: Pearson.
- Malina, M. A., & Selto, F. H. (2015). Behavioral-economic nudges and performance measurement models. *Journal of Management Accounting Research*, 27(1), 27-45.
- Mamabolo, M. A. (2016). *Human capital investments and skills outcomes specific to the different entrepreneurship phases*. Unpublished Doctor of Philosophy Thesis submitted to the University of Pretoria
- Mamabolo, M. A., Kerrin, M. & Kele, T., (2017). Entrepreneurship management skills requirements in an emerging economy: A South African outlook. *Southern African Journal of Entrepreneurship and Small Business Management*, 9(1), 1-10.
- Manwaring, R., Holloway, J., & Coffey, B. (2020). Engaging industry in curriculum design and delivery in public policy teaching: A strategic framework. *Teaching Public Administration*, 38(1), 46–62.
- Marcati, A., Guido, G., & Peluso, A. M. (2008). The role of SME entrepreneurs' innovativeness and personality in the adoption of innovations. *Research Policy*, 37(9), 1579-1590.
- Marginson, S. (2019). Limitations of human capital theory. *Studies in Higher Education*, 44(2), 287-301.
- Maritz, A., Brown, C., & Chich Jen, S. (2010). A blended learning approach to entrepreneurship education. *Actual Problems of Economics*, 13(115), 83-93.
- Maritz, A., De Waal, A., Buse, S., Herstatt, C., Lassen, A., & MacLachlan, R. (2014). Innovation education programs: Toward a conceptual framework. *European Journal of Innovation Management*, 17(2), 166–182.

- Markman, G. D., Balkin, D. B., & Baron, R. A. (2002). Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship theory and practice*, 27(2), 149-165.
- Markowska, M. (2011). *Entrepreneurial competence development: Triggers, processes & consequences*. Unpublished Doctor of Philosophy Thesis submitted to Jönköping International Business School.
- Marope, M., Griffin, P., & Gallagher, C. (2017). *Transforming teaching, learning, and assessment*. UNESCO International Bureau of Education.
- Marques, L. A., & Albuquerque, C. (2012). Entrepreneurship education and the development of young people life competencies and skills. *ACRN Journal of Entrepreneurship Perspectives*, 1(2), 55-68.
- Martin, B. C., McNally, J. J. & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing*, 28(2), 211-224.
- Martin, S. L., & Javalgi, R. R. G. (2019). Explaining performance determinants: A knowledge-based view of international new ventures. *Journal of Business Research*, 101, 615-626.
- Marvel, M. R., Davis, J. L., & Sproul, C. R. (2016). Human capital and entrepreneurship research: A critical review and future directions. *Entrepreneurship Theory and Practice*, 40(3), 599-626.
- Mason, C., & Arshed, N. (2013). Teaching entrepreneurship to university students through experiential learning: A case study. *Journal of Industry and Higher Education*, 27(6), 449-463.
- Mason, G., William, G., & Cranmer, S. (2009). Employability skills initiatives in higher education: What effects do they have on graduate labour market outcomes? *Education Economics*, 17 (1), 1-30.
- Matjila, T., & van der Merwe, P. (2021). Transformative research paradigm: A response to sdg 4 by intensifying support scholarships for deaf and hard-of-hearing students at an Open Distance and E-Learning University. *UnisaRxiv*: University of South Africa.

- Matlay, H. (2008). The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of Small Business and Enterprise Development*, 15(2), 382–396.
- McCracken, M., McIvor, R., Treacy, R., & Wall, T. (2017). *Human capital theory: Assessing the evidence for the value and importance of people to organisational success*. Belfast: Chartered Institute of Personnel and Development.
- McMullan, W., Chrisman, J. J., & Vesper, K. H. (2002). Lessons from successful innovations in entrepreneurial support programming. In *Innovation and entrepreneurship in Western Canada: From family businesses to multinationals*, 207-223. Calgary: University of Calgary Press.
- McQuaid, R.W. & Lindsay, C. (2005). The concept of employability. *Urban Studies*, 42(2), 197-219.
- Meager, N. (2001). In search of improving employability. *Employability from theory to practice. International Social Security Series*, 115-174.
- Mei, W., & Symaco, L. P. (2022). Students' entrepreneurial identity construction: Role and social identity influences. *SAGE Open*, 12(2), 1-13.
- Melnikovas, A. (2018). Towards an explicit research methodology: Adapting research onion model for futures studies. *Journal of Futures Studies*, 23(2), 29-44.
- Mendes, P. C., Leandro, C. R., Campos, F., Fachada, M., Santos, A. P., & Gomes, R. (2021). Extended School Time: Impact on learning and teaching. *European Journal of Educational Research*, 10(1), 353-365.
- Mengistu, D. G., & Mahesh, G. (2019). Construction education in Ethiopia: Knowledge and skills level attained and effectiveness of internship program. *Higher Education, Skills and Work-Based Learning*, 9(3), 510-522.
- Mensah, M. S. B. (2013). Entrepreneurship education on wholesale? Considerations on didactics and pedagogy for enhanced graduate employment in Ghana. *European Journal of Business and Management*, 5(15), 109-113.
- Mensah, M. S. B. (2016). *Involvement of academic researchers in research collaboration* [abstract]. Paper presented at the 2nd International Research

- Conference on Promoting Humanities Research for Development in Africa, 15–17 June 2016, University of Ghana, Accra, Ghana.
- Merino, R. (2007). Pathways from school to work: can the competences acquired in leisure activities improve the construction of pathways? *Journal of Education and Work*, 20(2), 139-159.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education. Revised and expanded from case study research in education*. San Francisco: Jossey-Bass Publishers.
- Mertens, D. M. (2012). Transformative mixed methods: Addressing inequities. *American Behavioral Scientist*, 56(6), 802-813.
- Mertens, D. M. (2014). Mixed methods and wicked problems. *Journal of Mixed Methods Research*, 9(1), 3-6.
- Mertens, D. M. (2017). Transformative research: Personal and societal. *International Journal for Transformative Research*, 4(1), 18-24.
- Meyer, D. F., & Mncayi, P. (2021). An analysis of underemployment among young graduates: The case of a higher education institution in South Africa. *Economies*, 9(4), 196.
- Mgaiwa, S. J. (2021). Fostering graduate employability: Rethinking Tanzania's University Practices. *Journal of Higher Education in Africa, Advance Online Publication. SAGE Open*, 1-14.
- Mihas, P. (2019). Qualitative data analysis. In *Oxford research encyclopedia of education*, 45-47.
- Mihas, P., & Odum Institute. (2019). Learn to use an exploratory sequential mixed method design for instrument development. *SAGE Research Methods Datasets*, 1-40.
- Milan, GS, De Toni, D., Dorion, E., & Schuler, M. (2010). The influence of entrepreneurs' mental models on the performance of their organizations. *Management org*, 8(3), 355-381.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). London: SAGE.

- Miller, R. L. (2015). Rogers' innovation diffusion theory (1962, 1995). In *Information seeking behavior and technology adoption: Theories and trends* (pp. 261–274). IGI Global.
- Milner, S., Cousins, W., & McGowan, I. (2016). Does all work and no play make a dull graduate? Perceptions of extra-curricular activities and employability. *Journal of Perspectives in Applied Academic Practice*, 4(1), 13-18.
- Minocha, S., Hristov, D., & Reynolds, M. (2017). From graduate employability to employment: policy and practice in UK higher education. *International Journal of Training and Development*, 21(3), 235-248.
- Mitchell, A., & Education, A. E. (2018, July). A review of mixed methods, pragmatism and abduction techniques. In *Proceedings of the European Conference on Research Methods for Business & Management Studies*, 269-277.
- Mitra, D. (2012). The role of crowdfunding in entrepreneurial finance. *Delhi Business Review*, 13(2), 67-72.
- Mkala, D. M., & Wanjau, K. (2013). Transforming implementation of entrepreneurship education programme in technical training institutions in Kenya. *European Journal of Business and Innovation Research* 1(3), 18-27,
- Moberg, K. (2014). *Assessing the impact of entrepreneurship education- From ABC to PHD*. Unpublished Doctor of Philosophy Thesis submitted to the Copenhagen Business School.
- Moberg, K. (2014). Two approaches to entrepreneurship education: the different effects of education for and through entrepreneurship at the lower secondary level. *The International Journal of Management Education*, 12(3), 512-528.
- Moberg, K., Vestergaard, L., Fayolle, A., Redford, D., Cooney, T., Singer, S., Sailer, K. & Filip D. (2014). *How to assess and evaluate the influence of entrepreneurship education*. Astee Project: Ireland.
- Mohamad R. M. & Sidek S. (2013). The role of entrepreneurial competencies as mediator in the relationship between micro finance and small business growth, *Journal of Entrepreneurship and Business*, 1(1), 21-31.

- Mohan, C.R. (2013). *First ever employability audit: Almost half of Indian graduate unemployable*. New Delhi: Press Trust of India.
- Molina-Azorin, J. F. (2016). Mixed methods research: An opportunity to improve our studies and our research skills. *European Journal of Management and Business Economics*, 25(2), 37-38
- Moon, M. D. (2019). Triangulation: A method to increase validity, reliability, and legitimation in clinical research. *Journal of Emergency Nursing*, 45(1), 103-105.
- Moses, C. L., Oluwafunmilayo, A. M., Olokundun, M. A., & Gbenga, A. M. (2015). Entrepreneurship education and action-oriented pedagogical approaches. *International Journal of Educational Science and Research*, 5(5), 53-60.
- Mulder, M. (2014). Conceptions of professional competence. In S. Billett, C. Harteis, H. Gruber (Eds.), *International handbook of research in professional and practice-based learning* Dordrecht: Springer.
- Mumuni, I. A., Bowan, A. P., & Insah, B. (2013). Competency-based approach to entrepreneurship education in Ghana. *International Journal of Social Sciences and Entrepreneurship*, 1(5), 18-27.
- Murugan, M. S., & Ganapathy, S. (2020). Empirical Model on Teachers Perception of Students Employability Skills on Arts and Science Colleges in Tamil Nadu. *International Journal of Modern Agriculture*, 9(4), 516-524.
- Mushtaq, B. (2018). Validity of tests. *JOJ Nursing & Health Care*, 9(3), 1-2.
- Mwasalwiba, E.S. (2010). Entrepreneurship education: A review of its objectives, teaching methods, and impact indicators. *Emerald Insight*, 52(1), 20-47.
- Mweru, M.C., & Muya, M.T. (2015). Features of resource based view theory: An effective strategy in outsourcing. *International Journal of Management and Commerce Innovations*, 3(4), 215-218.
- Mwiya, B. (2015). *The impact of entrepreneurship education on the relationship between institutional and individual factors and entrepreneurial intention of university graduates: Evidence from Zambia*. Unpublished Doctor of Philosophy Thesis submitted to the University of Wolver Hampton.
- Nabi, G., Holden, R. & Sley, A. (2010). Graduate career-making and business start-up: A literature review. *Education and Training*, 48(5), 373-385.

- Nabi, G., Linan, 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.
- Nagler, P., & Naudé, W. (2014). Non-farm entrepreneurship in rural Africa: Patterns and determinants. *IZA Discussion Paper*, 2008, 1-36.
- Nakhata, C. (2018). The relationships between human capital, entrepreneurial competencies and career success of SME entrepreneurs in Thailand. *AU Journal of Management*, 5(1), 17-26.
- Narmaditya, B. S., & Wibowo, A. (2021). Family economic education, peer groups and students' entrepreneurial intention: The mediating role of economic literacy. *Heliyon*, 7(4), 1-9.
- Nason, R. S., & Wiklund, J. (2018). An assessment of resource-based theorizing on firm growth and suggestions for the future. *Journal of management*, 44(1), 32-60.
- Nawanir, G., Lim, K. T., Othman, S. N., & Adeleke, A. Q. (2018). Developing and validating lean manufacturing constructs: an SEM approach. *Benchmarking: An International Journal*.
- Nyadu-Addo, R. & Mensah, M., S., B. (2017). Entrepreneurship education in Ghana – the case of the KNUST entrepreneurship clinic. *Journal of Small Business and Enterprise Development*.
- Ndala, N. N. (2019). Investigating the effectiveness of entrepreneurship education in developing entrepreneurial intentions among students in HEIs located in Blantyre District of Malawi. *African Journal of Business Management*, 13(3), 105-115.
- Ndofirepi, T. M. (2020). Relationship between entrepreneurship education and entrepreneurial goal intentions: Psychological traits as mediators. *Journal of Innovation and Entrepreneurship*, 9(1), 1-20.
- Ndou, V., Mele, G., & Del Vecchio, P. (2019). Entrepreneurship education in tourism: An investigation among European Universities. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 25, 100175.

- Ndou, V., Secundo, G., Schiuma, G., & Passiante, G. (2018). Insights for shaping entrepreneurship education: evidence from the European entrepreneurship centres. *Sustainability*, 10(4323), 1-19.
- Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new frontiers. *Journal of small business management*, 49(1), 55-70.
- Neelankavil, J. P. (2015). *International business research*. Oxfordshire: Routledge.
- Neergaard, H., Gartner, W. B., Hytti, U., Politis, D., & Rae, D. (2020). Filling in the blanks: 'Black boxes' in enterprise/entrepreneurship education. *International Journal of Entrepreneurial Behavior and Research*, 26(5), 817-828.
- Ngerem, E. I. & Ezikpe, N. (2016). Role of entrepreneurship education in secondary school students' economic development. *International Journal of Education and Evaluation*, 2(3), 36-42.
- Neuman W. Lawrence, (2014). *Social research methods: Qualitative and quantitative approaches (7th ed.)*. Harlow: Pearson.
- Newbold Jr, K. F., & Erwin, T. D. (2014). The education of entrepreneurs: an instrument to measure entrepreneurial development. *Journal of Business and Entrepreneurship*, 26(1), 141-178.
- Neycheva, M. (2021). Qualification (Mis) match for upper secondary and higher education. *Social Sciences*, 10(9), 327. 1-15.
- Ngulube, B. (2020). Undergraduate economics curriculum and employability skills in South Africa. *Problems of Education in the 21st Century*, 78(6), 1000-1013.
- Nieuwenhuis, J. (2016). Qualitative research designs and data-gathering techniques In K. Maree(ed), *First steps in research*, Van Schaik, Pretoria, 72-100.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, 16(1), 1-13.
- Nugroho, W. S., Rahmat M. S., & Handayani W. P. (2013). *Graduate employability in Indonesia in Graduate employability in Asia*. Bangkok: UNESCO Bangkok
- Nunnally, J. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Nwajiuba, C. A., Igwe, P. A., Akinsola-Obatolu, A. D., Ituma, A., & Binuomote, M. O. (2020). What can be done to improve higher education quality and

- graduate employability in Nigeria? A stakeholder approach. *Industry and Higher Education*, 34(5), 358-367.
- O'Neil, H. F., Allred, K., & Baker, E. L. (1997). Review of workforce readiness theoretical frameworks. In H. F. O'Neil (Ed.), *Workforce readiness: Competencies and assessment* (pp. 3–25). Mahwah, NJ: Lawrence Erlbaum.
- Oboreh, J. C., & Nnebe, E. G. (2019). Entrepreneurship education and skill acquisition of graduates in public universities South-East, Nigeria. *International Journal of Business & Law Research*, 7(4), 84-97.
- O'Connor, A. (2013). A conceptual framework for entrepreneurship education policy: Meeting government and economic purposes. *Journal of business venturing*, 28(4), 546-563.
- Odukoya, J., Atayero, A., Alao, A., & Afolabi, A. (2016). The concurrent and predictive validity of Covenant University students'evaluation of lecturers'teaching competence. *International Journal of Research in Applied Natural and Social Sciences*, 4(6), 126-136.
- Ojeifo, S. A. (2013). Entrepreneurship education in Nigeria: A panacea for youth unemployment. *Journal of Education and Practice*, 4(6), 61-67.
- Okay, Ş., & Şahin, I. (2010). A study on the opinions of the students attending the faculty of technical education regarding industrial internship. *International Journal of Physical Sciences*, 5(7), 1132-1146.
- Okesina, M. (2020). A critical review of the relationship between paradigm, methodology, design and method in research. *Journal of Research & Method in Education*, 10(3), 57-68.
- Okolie, U. C., Igwe, P. A., Nwosu, H. E., Eneje, B. C., & Mlanga, S. (2020). Enhancing graduate employability: Why do higher education institutions have problems with teaching generic skills? *Policy Futures in Education*, 18(2), 294-313.
- Okolie, U. C., Nwajiuba, C. A., Binuomote, M. O., Ehiobuche, C., Igu, N. C. N., & Ajoke, O. S. (2020). Career training with mentoring programs in higher education: Facilitating career development and employability of graduates. *Education+ Training* 62(3), 214 – 230.

- Okoro, V. N. (2016). *Entrepreneurship education and the enhancement of entrepreneurial skills among undergraduates in South-Eastern Federal universities, Nigeria*. Unpublished master's thesis submitted to the University of Nigeria.
- Oliphant, I. (2016). *The mental models of black entrepreneurs*. Unpublished master's thesis submitted to the University of Johannesburg.
- Oliver, B., Whelan, B., Hunt, L., Hammer, S., Jones, S., Pearce, A., & Henderson, F. (2011). *Introducing the graduate employability indicators*. Strawberry Hills: Australian Learning and Teaching Council.
- Olokundun, M.A., Moses, C.L., Iyiola, O.O., Ibidunni, A.S., Amaihian, A. B. & Peter, F. (2017). Perceptions of students on entrepreneurship curriculum contents and open mindedness: Implications for business idea generation of Nigerian University students. *Academy of Entrepreneurship Journal*, 23(2), 1-10.
- Olomi, D., & Sinyamule, R. (2009). Entrepreneurial inclinations of vocational education students: A comparative study of male and female trainees in Iringa region, Tanzania. *Journal of Enterprising Culture*, 17, 103-125.
- Olufemi, A. (2020). Entrepreneurship: An option to solving unemployment problem among Nigerian youths. *European Business & Management*, 6(6), 151-163.
- Omosho, d. T. (2020). Impact of government investment in education and Entrepreneurship on Nigeria's innovation performance. *Sapientia Global Journal of Arts, Humanities and Development Studies (SGOJAHDS)*, 3(4), 229-239.
- O'Neil, S., & Koekemoer, E. (2016). Two decades of qualitative research in psychology, industrial and organisational psychology and human resource management within South Africa: A critical review. *SA Journal of Industrial Psychology*, 42(1), 1-16.
- Onyia, A. U. (2011). *Job creation and entrepreneurship education: Challenges for the 21st century*. *The Nigerian Journal of Research and Production*, 19(1), 1-8.
- Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European economic review*, 54(3), 442-454.

- Osborn, J. A. (2019). *Understanding student charters through psychological contracts in higher education: a grounded theory approach*. Doctor of Philosophy Dissertation submitted to the University of Plymouth.
- Osborne, S., & Hammoud, M. S. (2017). Effective employee engagement in the workplace. *International Journal of Applied Management and Technology*, 16(1), 4.
- Osmani, M., Weerakkody, V., Hindi, N., & Eldabi, T. (2019). Graduates employability skills: A review of literature against market demand. *Journal of Education for Business*, 94(7), 423-432.
- Othman, N. H., Othman, N., & Juhdi, N. H. (2022). Does entrepreneurship education affect pre-start-up behavior in Malaysia? A multi-group analysis approach. *Frontiers In Psychology*, 13, 1-13.
- Othman, S., Steen, M., & Fleet, J. (2020). A sequential explanatory mixed methods study design: An example of how to integrate data in a midwifery research project. *J. Nurs. Educ. Pract*, 11, 75-89.
- Ovbiagbonhia, A. R., Kollöffel, B., & den Brok, P. (2019). Educating for innovation: Students' perceptions of the learning environment and of their own innovation competence. *Learning Environments Research*, 22(3), 387–407.
- Owino, E. O. (2013). The influence of service quality and corporate image on customer satisfaction among university students in Kenya. Unpublished Doctor of Philosophy Thesis Submitted the University of Nairobi.
- Özdemir, Y., & Beltekin, N. (2019). An analysis on educational qualification presentations of the job seekers in the labor markets. *Şarkiyat*, 11(3), 1072-1090.
- Paisey, C., & Paisey, N. J. (2010). Developing skills via work placements in accounting: Student and employer views. In *Accounting forum*, 34(2), 89-108.
- Pallant, J. (2005). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows (Version 12)*. Allen and Unwin, Crow's Nest NSW.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using spss program* (6th ed.). London: McGraw-Hill Education.

- Pan, Y & Lee, L. (2011). Academic performance and perceived employability of graduate students in business and management – An analysis of nationwide graduate destination survey. *Procedia – Social and Behavioural Sciences*, 25, 91-103.
- Pandey, P., & Pandey, M. (2015). *Research methodology: Tools and techniques*. Buzau: Bridge Centre.
- Paranjape, M. S. (2007). Determinants of employability of graduates: A case study of university of Mumbai. *The Indian Journal of Labour Economics*, 50(2), 332-346.
- Patall, E. A., Cooper, H., & Allen, A. B. (2010). Extending the school day or school year: A systematic review of research (1985–2009). *Review of educational research*, 80(3), 401-436.
- Pauceanu, A. M., Rabie, N., & Moustafa, A. (2020). Employability under the fourth industrial revolution. *Economics & Sociology*, 13(3), 269.
- Peel, K. L. (2020). A beginner's guide to applied educational research using thematic analysis. *Practical Assessment, Research, and Evaluation*, 25(1), 2.
- Peterka, S. O., Koprinjak, T. & Mezulic, P. (2015). Challenges of evaluation of the influence of entrepreneurship education. *Journal of Economics and Business*, 12(2), 74-86.
- Peterson, R. A., Kim, Y., & Choi, B. (2020). A meta-analysis of construct reliability indices and measurement model fit metrics. *Methodology*, 16(3), 208-223.
- Pickernell, D., Packham, G., Jones, P., Miller, C., & Thomas, B. (2011). Graduate entrepreneurs are different: They access more resources. *International Journal of Entrepreneurial Behavior & Research*, 17(2), 183-202.
- Pimentel, C., Silva, H., Ferreira Master's, M., & Amorim, M. (2016). Transversal entrepreneurial competencies for youth employability: A GAP analysis. *Proceedings of Business Sustainability, Póvoa de Varzim*, 2100.
- Piperopoulos, P., & Dimov, D. (2015). Burst bubble or build steam? Entrepreneurship education, entrepreneurial self-efficacy and entrepreneurial intentions. *Journal of Small Business Management*, 53(4), 970-985.
- Pittaway, L. (2021). *Entrepreneurship education in higher education: A review of the US context*. <http://dx.doi.org/10.2139/ssrn.3942514>.

- Pittaway, L. A., Gazzard, J., Shore, A., & Williamson, T. (2015). Student clubs: Experiences in entrepreneurial learning. *Entrepreneurship and Regional Development*, 27(3-4), 127-153.
- Pittaway, L., & Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. *International small business journal*, 25(5), 479-510.
- Pittaway, L., & Edwards, C. (2012). Assessment: Examining practice in entrepreneurship education. *Education+ Training*, 54, 778-800.
- Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O., & King, A. (2011). The role of entrepreneurship clubs and societies in entrepreneurial learning. *International Small Business Journal* 29(1), 37-57.
- Pizzi, S., Caputo, A., Corvino, A., & Venturelli, A. (2020). Management research and the UN sustainable development goals (SDGs): A bibliometric investigation and systematic review. *Journal of Cleaner Production*, 276, 124033.
- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: A multilevel model. *Academy of management review*, 36(1), 127-150.
- Portuguez, C. M., & Gómez Zermeno, M. G. (2021). Identifying entrepreneurial interest and skills among university students. *Sustainability*, 13(13), 6995.
- Pounder, P. A. (2016). Entrepreneurship Education in the Caribbean: Learning and teaching tools. *Brock Education: A Journal of Educational Research and Practice*, 26(1), 83-101.
- Powell, W. W., & Sandholtz, K. (2012). Amphibious entrepreneurs and the emergence of organizational forms. *Strategic Entrepreneurship Journal*, 6 (2), 94-115.
- Precision Consultancy (2007). *Employability skills: From framework to practice*. Melbourne: Business, Industry and Higher Education Collaboration Council.
- Preedy, S., Jones, P., Maas, G., & Duckett, H. (2020). Examining the perceived value of extracurricular enterprise activities in relation to entrepreneurial learning processes. *Journal of Small Business and Enterprise Development* 27(7), 1085 – 1105.
- Premand, P., Brodmann, S., Almeida, R., Grun, R., & Barouni, M. (2012). Entrepreneurship training and self-employment among university

- graduates: Evidence from a randomized trial in Tunisia. *World Bank Policy Research Working Paper*, (6285).
- Premand, P., Brodmann, S., Almeida, R., Grun, R., & Barouni, M. (2016). Entrepreneurship education and entry into self-employment among university graduates. *World Development*, 77, 311-327.
- Prikshat, V., Montague, A., Connell, J., & Burgess, J. (2020). Australian graduates' work readiness—deficiencies, causes and potential solutions. *Higher Education, Skills and Work-Based Learning*.
- Pulka, B. M., Ramli, A., & Mohamad, A. (2021). Entrepreneurial competencies, entrepreneurial orientation, entrepreneurial network, government business support and SMEs performance. The moderating role of the external environment. *Journal of Small Business and Enterprise Development*, 28(4), 586-618.
- Punch, S. (2016). Cross-world and cross-disciplinary dialogue: A more integrated, global approach to childhood studies. *Global studies of childhood*, 6(3), 352-364.
- Qureshi, M. S., Saeed, S., & Wasti, S. W. M. (2016). The impact of various entrepreneurial interventions during the business plan competition on the entrepreneur identity aspirations of participants. *Journal of global entrepreneurship research*, 6(1), 1-18.
- Rae, D. (2007), *Connecting enterprise and graduate employability: challenges to the higher education culture and curriculum?* *Education Training*, 49(8/9), 605-619.
- Rae, D. (2010). Universities and enterprise education: Responding to the challenges of the new era. *Journal of Small Business and Enterprise Development*, 17(4), 591-606.
- Rahim, H. L., Abidin, Z. Z., & Rosly, H. E. (2016). Entrepreneurship education effectiveness in higher learning institution: A study on University of Technology, MARA. *Asean Entrepreneurship Journal*, 2(1), 21-30.
- Rahim, H. L., Abidin, Z. Z., & Rosly, H. E. (2016). Impact of entrepreneurship education effectiveness towards graduate employability. *Asean Entrepreneurship Journal*, 2(1), 11-18.

- Rahim, I. H. A., & Mukhtar, D. (2021). Perception of students on entrepreneurship education. *International Journal of Business and Social Science*, 12(1), 94-102.
- Rahman, S. A., Majid, H. S. A., Zubairi, A. M., Yusof, D. M., Ghalib, M. F., Dzulkifli, M. A., Janon, N. S., & Shuib, M. (2012). Employability programmes and graduates' assessment of their employability. *International Journal of Social Sciences and Humanity Studies* 4 (1), 1309-8063.
- Raithel, S., Sarstedt, M., Scharf, S., & Schwaiger, M. (2012). On the value relevance of customer satisfaction. Multiple drivers and multiple markets. *Journal of the Academy of Marketing Science*, 40(4), 509-525.
- Ranabahu, N., Almeida, S., & Kyriazis, E. (2020). University-led internships for innovative thinking: a theoretical framework. *Education+ Training*, 62(3), 235-254.
- Rauch, A., & Huksink, W. (2015). Putting entrepreneurship education where the intention to act lies: An investigation into the impact of entrepreneurship education on entrepreneurial behaviour. *Academy of Management Learning & Education*, 14(2), 187-204.
- Rauch, A., Doorn, R. V., & Hulsink, W. (2014). A qualitative approach to evidence-based entrepreneurship: Theoretical considerations and an example involving business clusters. *Entrepreneurship and Theory Practice*, 38(2), 333-368.
- Rehman, A. A., & Alharthi, K. (2016). An introduction to research paradigms. *International Journal of Educational Investigations*, 3(8), 51-59.
- Rehman, S. R., Elrehail, H., Nair, K, Bhatti, A., & Taamneh, A. M. (2020). MCS package and entrepreneurial competency influence on business performance: The moderating role of business strategy. *European Journal of Management and Business Economics*. Emerald Publishing Limited.
- Reiss, J. (2019). Against external validity. *Synthese*, 196(8), 3103-3121.
- Rengiah, P. (2013). *Effectiveness of entrepreneurship education in developing entrepreneurial intentions among Malaysian university students*. Unpublished Doctoral Dissertation submitted to the Southern Cross University.

- Rice, S., Winter, S. R., Doherty, S., & Milner, M. (2017). Advantages and disadvantages of using internet-based survey methods in aviation-related research. *Journal of Aviation Technology and Engineering*, 7(1), 58-65.
- Rideout, E.C., & Gray, D.O. (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university-based entrepreneurship education. *Journal of Small Business Management*, 51(3), 329-351.
- Riebenbauer, E., & Stock, M. (2018). Providing entrepreneurship education to business and non-business students: A holistic view on different approaches. *International Journal for Business Education*, 158(1, 4), 57-69.
- Riebenbauer, E., Dreisiebner, G., & Stock, M. (2016). Boost entrepreneurship education through business simulations. *Entrepreneurship Education – Regional and International, 88th SIEC-ISBE Conference*, Graz.
- Rivera, M. D. C. A., Gallego, L. V., Álvarez, M. Á., Inchaurtieta, Á. M., Albizuri, I. E., & de Eulate, C. Y. Á. (2012). Perceived employability and competence development. *Procedia-Social and Behavioral Sciences*, 69, 1191-1197.
- Robertson-Smith, G., & Markwick, C. (2009). *Employee engagement: A review of current thinking*. Brighton: Institute for Employment Studies.
- Robinson, P. B., Stimpson, D., Huefner, J. C., & Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship Theory and Practice*, 15(4), 13–31.
- Römgens, I., Scoupe, R., & Beausaert, S. (2020). Unraveling the concept of employability, bringing together research on employability in higher education and the workplace. *Studies in Higher Education*, 45(12), 2588-2603.
- Rosa, A. T. R. (2020). Teacher development potential (creativity and innovation) education management in engineering training, coaching and writing works through scientific knowledge intensive knowledge based on web research in the industrial revolution and society. *International Journal of Higher Education*, 9(4), 161–168.

- Rosli, M. M., & Sidek, S. (2013). The Impact of innovation on the performance of small and medium manufacturing enterprises: Evidence from Malaysia. *Journal of Innovation Management in Small & Medium Enterprises*, 2013, 1-16.
- Rothwell, A. & Arnold, J. (2007), Self-perceived employability: development and validation of a Scale. *Personnel Review*.36 (1), 23-41.
- Roulin, N., & Bangerter, A. (2013). Students' use of extra-curricular activities for positional advantage in competitive job markets. *Journal of Education and Work*, 26(1), 21-47.
- Rudhumbu, N., Makambe, U., Mkali, O., & Ndlovu, B. (2016). Understanding Graduate Employability: A case of a selected higher education institution in Botswana. *European Journal of Training and Development Studies*, 3(2), 1-16.
- Ruskovaara, E. (2014). *Entrepreneurship education in basic and upper secondary education -Measurement and empirical evidence*. Unpublished Doctor of Philosophy Thesis submitted to the Lappeenranta University of Technology.
- Russell, R., M. Atchisona, & R. Brooks. (2008). Business plan competitions in tertiary institutions: Encouraging entrepreneurship education. *Journal of Higher Education Policy and Management*, 30(2), 123–38.
- Rychen, D.S. & L.H. Salganik (2003). *Key competencies for a successful life and well-functioning society*. Hogrefe & Huber: Göttingen.
- Sabarguna, B. S. (2017). Innovation oriented education model as a solution for undergraduate unemployment prepared for biomedical engineering study program. *International Information Institute (Tokyo). Information*, 20(9A), 6361–6368.
- Saidi, N. S. A., Michael, F. L., Sumilan, H., Lim, S. L. O., Jonathan, V., Hamidi, H., & Ahmad, A. I. A. (2019). The relationship between working environment and employee performance. *Journal of Cognitive Sciences and Human Development*, 5(2), 14-22.

- Saji, B. S., & Nair, A. R. (2018). Effectiveness of innovation and entrepreneurship education in UAE higher education. *Academy of Strategic Management Journal*, 17(4), 1–12.
- Salehi, K., & Golafshani, N. (2010). Using mixed methods in research studies: An opportunity with its challenges. *Int J Multiple Research Approaches*, 4(3), 186-191.
- Salisu, I., Hashim, N., Mashi, M., S., & Aliyu, H., G. (2020). Perseverance of effort and consistency of interest for entrepreneurial career success Does resilience matter? *Journal of Entrepreneurship in Emerging Economies*, 12(2), 279-304.
- Samuel, A., Bassey, O. I., & Samuel, O. I. (2012). Graduate turnout and graduate employment in Nigeria. *International Journal of Humanities and social Sciences*, 2(14), 257-265.
- Sánchez, J. C. (2011). University training for entrepreneurial competencies: Its impact on intention of venture creation. *International Entrepreneurship and Management Journal*, 7(2), 239-254.
- Sánchez, J. C. (2013). The impact of an entrepreneurship education program on entrepreneurial competencies and intention. *Journal of small business management*, 51(3), 447-465.
- Sanchez, R. (2004). Understanding competence-based management: Identifying and managing five modes of competence. *Journal of Business Research*, 57(5), 518–532.
- Sanchez, R. (2008). A scientific critique of the resource-based view (RBV) in strategy theory, with competence-based remedies for the RBV's conceptual deficiencies and logic problems. In Sanchez, R. (Ed.) *A focused issue on fundamental issues in competence theory Development*. Emerald Group Publishing Limited.
- Sanders, J. & De Grip, A. (2004). Training, task flexibility and the employability of low-skilled workers. *International Journal of Manpower*, 25(1), 73-89.
- Sandia National Laboratories. (1993). Future requirements: Workforce skills. *Journal of Educational Research*, 86(5), 293-297.

- Sangwan, K., S., & Singh, R. (2021). An experiential learning-integrated framework to improve problem-solving skills of engineering graduates, *Higher Education, Skills and Work-Based Learning*, 3(29), 1-15.
- Sarja, J. (2020). Not all numerical data leads to quantitative research: Introduction to qualitative quantification analysis. *International Journal of Quantitative and Qualitative Research Methods*, 8 (2), 19-24.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Treating unobserved heterogeneity in PLS-SEM: A multi-method approach. In *Partial least squares path modeling* (pp. 197-217). Springer, Cham.
- Sarwoko, E., Surachman, Armanu, & Djumilah, H. (2013). Entrepreneurial characteristics and competency as determinants of business performance in SMEs. *Journal of Business and Management*, 7(3), 31-38.
- Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research methods for business students* (7th ed.). Harlow: Pearson Education Ltd.
- Saunders, M., Lewis, P. & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Harlow: Pearson Education Limited, Financial Times Prentice Hall.
- Sawaya, A., & Bhero, S. (2018). In entrepreneurship learned or inborn feature in Mozambique? *Journal of Economics and Sustainable Development*, 9(16), 58-65.
- Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science*, 8(4), 379–386.
- Schuberth, F., Rademaker, M. E., & Henseler, J. (2020). Estimating and assessing second-order constructs using PLS-PM: The case of composites of composites. *Industrial Management & Data Systems*. <https://doi.org/10.1108/IMDS-12-2019-0642>.
- Schumann, H. O. (2019). The use of student-copresented virtual guest speakers in entrepreneurial education. *Journal of Education for Business*, 94(6), 418-422.
- Schwarz, E. J., Wdowiak, M. A., Almer-Jarz, D. A., & Breitenacker, R. J. (2009). The effects of attitudes and perceived environment conditions on students' entrepreneurial intent. *Education & Training*, 51(4), 272–291.

- Seikkula-Leino, J., Satuvuori, T., Ruskovaara, E., & Hannula, H. (2015). How do Finnish teacher educators implement entrepreneurship education? *Education + Training*, 57(4), 392-404.
- Sekaran, U., & Bougie, R. (2013). Research methods for business: *A skill-building approach* (6th ed.). New York: Wiley.
- Sekaran, U., & Bougie, R. (2016). Research methods for business: *A skill building approach* (7th ed.). Chichester: Wiley.
- Seoane, M. J. F., Alvarez, M. T., & Montes, C. P. (2011). Políticas educativas y empleabilidad: cuáles son las competencias más influyentes? *Education Policy Analysis Archives/Archivos Analíticos de Políticas Educativas*, 19, 1-24.
- Seth, K. P. (2020). *The impact of entrepreneurship education on entrepreneurial intention: an empirical study of entrepreneurship education's four key characteristics*. Unpublished Doctor of Philosophy Thesis submitted to the Brunel University.
- Shah, I. A., Amjed, S., & Jaboo, S. (2020). The moderating role of entrepreneurship education in shaping entrepreneurial intentions. *Journal of Economic Structures*, 9(1), 1-15.
- Shaikh, A.S, Dars, Memon, K., & Kazi, A.G. (2020). A study of factors affecting travel decision making of tourists. *Journal of Economic Information*, 7(1), 1-10.
- Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of mixed methods research*, 10(4), 319-334.
- Shiyanbola, O. O., Rao, D., Bolt, D., Brown, C., Zhang, M., & Ward, E. (2021). Using an exploratory sequential mixed methods design to adapt an Illness Perception Questionnaire for African Americans with diabetes: the mixed data integration process. *Health Psychology and Behavioral Medicine*, 9(1), 796-817.
- Shmueli, G., & Koppius, O. R. (2011). Predictive analytics in information systems research. *MIS quarterly*, 553-572.

- Shmueli, G., Ray, S., Estrada, J. M. V., & Chatla, S. B. (2016). The elephant in the room: Predictive performance of PLS models. *Journal of Business Research*, 69(10), 4552-4564.
- Shukran A. R., Wok, S., Majid, H.S.A., & Noor, N. M. (2004). *Graduate employability*. Kuala Lumpur: Admissions and Records.
- Singh, A. (2020). Integrating corporate social responsibility (csr) and social entrepreneurship (SE): A conceptual framework for social value creation. *Social Entrepreneurship and Sustainable Development*. New Delhi: Routledge.
- Singh, S., & Verma, H. L. (2010). Impact of entrepreneurship training on the development of entrepreneurs. *Interdisciplinary Journal of Contemporary Research in Business*, 1(10), 61–82.
- Sirelkhatim, F., & Gangi, Y. (2015). Entrepreneurship education: A systematic literature review of curricula contents and teaching methods. *Cogent Business & Management*, 2(1), 1052034.
- Skinner, T., Malos, E., & Hester, M. (2013). *Researching gender violence: Feminist methodology in action*. Milton Park: Willan Publishing.
- Smith, R. (2015). Entrepreneurship and poetry: Analyzing an aesthetic dimension. *Journal of Small Business and Enterprise Development*, 22(3), 450-472.
- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566–591.
- Soundararajan, G., Stephen, A. G., Ravikumar, A., & Jesrani, D. R. (2020). Employability skills needed in the emerging global job market: Stakeholders' perception. 36th IBIMA Conference, Granada, Spain.
- Steenekamp, A. G. (2013). *An assessment of the impact of entrepreneurship training on the youth in South Africa*. Unpublished Doctor of Philosophy Thesis submitted to the North-West University.
- Stuart, M., Lido, C., Morgan, J., Solomon, L., & May, S. (2011). The impact of engagement with extracurricular activities on the student experience and

- graduate outcomes for widening participation populations. *Active Learning in Higher Education*, 12(3), 203-215.
- Stukas, A. A., Hoye, R., Nicholson, M., Brown, K.M., and Aisbett, L. (2016). Motivations to volunteer and their associations with volunteers' well-being. *Nonprofit and Voluntary Sector Quarterly*, 45(1), 112–132.
- Su, W. & Zhang, M. (2015). An integrative model for measuring graduates' employability skills - A study in China. *Cogent business and management*, 2(1), 1060729.
- Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: comparing students and employers' perceptions. *Studies in higher education*, 45(9), 1834-1847.
- Sue, V. M., & Ritter, L. A. (2011). *Conducting online surveys*. Thousand Oaks: SAGE Publications, Inc.
- Suleman, F. (2018). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education*, 76(2), 263-278.
- Surlemont, B. (2007). Promoting enterprising: a strategic move to get schools' cooperation in the promotion of entrepreneurship. *Handbook of research in entrepreneurship education*, 2, 255-265.
- Sürücü, L., & MASLAKÇI, A. (2020). Validity and reliability in quantitative research. *Business & Management Studies: An International Journal*, 8(3), 2694-2726.
- Sweeney, T. B. (2016). *A convergent parallel mixed methods investigation into the role of mindfulness in moderate to severe, persistent depression*. Unpublished Doctoral Dissertation submitted to the University of Nottingham.
- Tade, O. D., Oluyemi, J. A., & Olugbenga, A. E. (2020). A cross-sectional study of innovation potential in Nigeria. *International Journal of Management, Social Sciences, Peace and Conflict Studies*, 3(4), 361-373.
- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *How to test the*

- validation of a questionnaire/survey in a research. SSRN Electronic Journal* 5(3), 28-36.
- Tan, L. C. & French-Arnold, E. (2012). *Employability of graduates in Asia: An overview of case studies*. Bangkok: UNESCO Bangkok, Asia and Pacific Regional Bureau for Education.
- Tarhan, M. (2021). Entrepreneurship Skill in the Context of Teaching Programs: Case of Poland. *Educational Policy Analysis and Strategic Research*, 16(2), 25-45.
- Tchibozo, G. (2005). Effects and strategic potential of extracurricular activity in higher education. *Research Paper*. Canberra: Australian Association for Research in Education (AARE).
- Tchibozo, G. (2007). Extra-curricular activity and the transition from higher education to work: A survey of graduates in the United Kingdom. *Higher Education Quarterly*, 61(1), 37-56.
- Tehseen, S. & Anderson, R. A. (2020). Cultures and entrepreneurial competencies; ethnic propensities and performance in Malaysia. *Journal of Entrepreneurship in Emerging Economies*, 12(5), 643-666.
- Tehseen, S., & Ramayah, T. (2015). Entrepreneurial competencies and SMEs business success: The contingent role of external integration. *Mediterranean Journal of Social Sciences*, 6(1), 50-50.
- Teichler, U. (2007). Does higher education matter? Lessons from a comparative graduate study. *European Journal of Education*, 42(1), 11:34.
- Tejan, O. A., & Sabil, A. (2019). Understanding employers' perception of employability skills and career development in Morocco. *International Journal of Education and Literacy Studies*, 7(2), 134-138.
- Teng, W., Ma, C., Pahlevansharif, S., & Turner, J. J. (2019). Graduate readiness for the employment market of the 4th industrial revolution: The development of soft employability skills. *Education+ Training*, 61(5), 590-604.
- Thanh, N. C., & Thanh, T. T. (2015). The interconnection between interpretivist paradigm and qualitative methods in education. *American Journal of Educational Science*, 1(2), 22-47.

- The National Youth Agency (2008). Young people's volunteering and skills development. *Research Report, RW103*. Nottingham: Department for Education and Skills
- Theron, P. M. (2015). Coding and data analysis during qualitative empirical research in practical theology. *In die Skriflig*, 49(3), 1-9.
- Thijssen, J., Van der Heijden, B., & Rocco, T. (2008). Toward the employability-link model: Current employment transition to future employment perspectives. *Human Resource Development Review*, 7(2), 165-183.
- Thirunavukarasu, G., Chandrasekaran, S., Subhash Betageri, V., & Long, J. (2020). Assessing learners' perceptions of graduate employability. *Sustainability*, 12(460), 1-17.
- Thomas, A. S., & January, S. A. A. (2021). Evaluating the criterion validity and classification accuracy of universal screening measures in reading. *Assessment for Effective Intervention*, 46(2), 110-120.
- Thorsteinsson, G. (2014). Innovation education to improve social responsibility through general education. *Tiltai*, 61(4), 71-78.
- Tilije, R. N. (2020). Technical and vocational education and training in Nigeria: Bridging the gap between policy and practice. *Kashere Journal of Education*, 1(2), 79-88.
- Tippins, N., Sackett, P., & Oswald, F. (2018). Principles for the validation and use of personnel selection procedures. *Industrial and Organizational Psychology*, 11(S1), 1-97.
- Tipu, S. A. A., & Fantazy, K. (2018). Exploring the relationships of strategic entrepreneurship and social capital to sustainable supply chain management and organizational performance. *International Journal of Productivity and Performance Management*, 11(1,2019), 81 – 95.
- Tipu, S.A.A. (2019). Business plan competitions in developed and emerging economies. *Journal of Entrepreneurship in Emerging Economies*, 11(1), 81-97.
- Tracy, S. J. (2013). Qualitative research methods: *Collecting evidence, crafting analysis, communicating impact*. Hoboken, NJ: Wiley-Blackwell.

- Ucbasaran, D., Westhead, P., & Wright, M. (2008). Opportunity identification and pursuit: Does an entrepreneur's human capital matter. *Small business economics*, 30(2), 153-173.
- Uddin, M. (2021). Addressing employability challenges of business graduates in Bangladesh: Evidence from an emerging economy perspective. *Australian Journal of Career Development*, 30(2), 83-94.
- Ugwu, C.I, Ekere, J.N. & Onoh, C. (2021). Research paradigms and methodological choices in the research process. *Journal of applied Information Science and Technology*, 14 (2), 116-124.
- Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of business venturing*, 26(3), 341-358.
- Ununmwangho, P. & Osayomwanbor, P. (2014). The role of entrepreneurship education and economic development. *Journal of Multidisciplinary Science and Technology*, (5), 90 – 92.
- Urbano, D., Audretsch, D., Aparicio, S., & Noguera, M. (2020). Does entrepreneurial activity matter for economic growth in developing countries? The role of the institutional environment. *International Entrepreneurship and Management Journal*, 16(3), 1065–1099.
- Usman, I., Maupa, H., Idrus, M., Haerani, S., & Nurjanna, N. (2020). Moderation effect of competence of knowledge and innovation: Case of Bali. *Business Process Management Journal*, 26(6), 1307–1327.
- Valerio, A., Parton, B., & Robb, A. (2014). *Entrepreneurship education and training programs around the world: Dimensions for success*. Washington DC: World Bank.
- Van Dam, K. (2004) Antecedents and consequences of employability orientation. *European Journal of Work and Organizational Psychology*, 13(1), 29:51.
- Van Gelderen, M. (2012). Perseverance strategies of enterprising individuals. *International Journal of Entrepreneurial Behaviour & Research*, 18(6), 630-648.
- Van Trang, T., Do, Q. H., & Luong, M. H. (2019). Entrepreneurial human capital, role models, and fear of failure and start-up perception of feasibility among

- adults in Vietnam. *International Journal of Engineering Business Management*, 11, 1847979019873269.
- Vasudevan, H. (2021). Resource-based view theory application on the educational service quality. *International Journal of Engineering Applied Sciences and Technology*, 6(6), 174-186.
- Veleva, V. (2021). The role of entrepreneurs in advancing sustainable lifestyles: Challenges, impacts, and future opportunities. *Journal of Cleaner Production*, 283, 124658.
- Vijay, L., & Ajay, V. K. (2011). Entrepreneurial Competency in SME? S. Bonfring *International Journal of Industrial Engineering and Management Science*, 1, 05-10.
- Vincent-Lancrin, S., Jacotin, G., Urgel, J., Kar, S., & González-Sancho, C. (2017). *Measuring innovation in education: A journey to the future*. Paris: OECD Publishing.
- Vincett, P. S., & Farlow, S. (2008). Start-a-Business: An experiment in education through entrepreneurship. *Journal of small business and enterprise development*, 15(2), 274-288.
- Viswesvaran, C., & Ones, D. S. (2000). Perspectives on models of job performance. *International Journal of Selection and Assessment*, 8(4), 216-226.
- Walmsley, A., Decker-Lange, C., & Lange, K. (2022). Conceptualising the Entrepreneurship Education and Employability Nexus. In *Theorising Undergraduate Entrepreneurship Education* (pp. 97-114). Cham: Palgrave Macmillan.
- Watson, K., McGowan, P., and Cunningham, J. (2018). An exploration of the business plan competition as a methodology for effective nascent entrepreneurial learning. *International Journal of Entrepreneurial Behaviour & Research*, 24(1), 121-146.
- Watts, F., García-Carbonell, A., Andreu-Andrés, M. A., Stange, C., & Helker, H. (2013). Assessment of innovation competence. In A. Lehto & Penttilä (Eds.) *Pedagogical views on innovation competence and entrepreneurship* (pp. 44–56). Tampereen Yliopistopaino – Juvenes Print Oy, Tampere.

- Weligamage, S. S. (2006). Education and employment: Challenges for employability of management graduates. *Proceedings of the Second Thailand Education Congress: World Teachers Day International Conference*. Thailand: Bangkok.
- Welman, C., Kruger, F., & Mitchell B. (2007). *Research methodology (3rd ed.)*. Cape Town: Oxford.
- West, M. R., Kraft, M. A., Finn, A. S., Martin, R. E., Duckworth, A. L., Gabrieli, C. F., & Gabrieli, J. D. (2016). Promise and paradox: Measuring students' non-cognitive skills and the impact of schooling. *Educational Evaluation and Policy Analysis*, 38(1), 148-170.
- Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly*, 177-195.
- Whitaker, L., Smith, F. L., Brasier, C., Petrakis, M., & Brophy, L. (2021). Engaging with transformative paradigms in mental health. *International Journal of Environmental Research and Public Health*, 18(18), 9504.
- Widarni, E. L., & Wilantari, R. N. (2021). The relationship between human capital development and economic growth: Evidence from Malaysia. *The Journal of Asian Finance, Economics and Business*, 8(6), 641-650.
- Wijethunge, W. A. D. S., & Pushpakumari, M. D. (2013). Entrepreneurial orientation and business performance of small and medium scale enterprises of western province of Sri Lanka. *Kelaniya Journal of Management*, 2(2), 51-67.
- Willig, C. (2013). *Introducing qualitative research in psychology (3rd ed.)*. Berkshire: Open University Press.
- 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.
- Wipulanusat, W., Panuwatwanich, K., Stewart, R. A., & Sunkpho, J. (2020). Applying mixed methods sequential explanatory design to innovation management. In *The 10th International Conference on Engineering, Project, and Production Management* (pp. 485-495). Springer: Singapore.

- Wong, K. K.-K. (2019). *Mastering partial least squares structural equation modelling (PLS-Sem) with Smartpls in 38 Hours*. Bloomington, IN: iUniverse.
- Wong, K. T. M. (2018). New interpretations of giftedness in early years: looking through the lens of social constructionism. Unpublished Doctor of Philosophy Thesis submitted to the University of Canterbury.
- World Economic Forum (2014). *The Global Competitiveness Report 2014-2015*. Geneva: World Economic Forum.
- World Population Review (2022). Unemployment by Country 2022. <https://worldpopulationreview.com/country-rankings/unemployment-by-country>
- Wu, Q., Dbouk, W., Hasan, I., Kobeissi, N., & Zheng, L. (2021). Does gender affect innovation? Evidence from female chief technology officers. *Research Policy*, 50(9), 104327.
- Wuttaphan, N. (2017). Human capital theory: The theory of human resource development, implications, and future. *Life Sciences and Environment Journal*, 18(2), 240-253.
- Xiang, L. (2009). Entrepreneurial competencies as an entrepreneurial distinctive: *An examination of the competency approach in defining entrepreneurs*. Unpublished Master's Dissertation submitted to the Singapore Management University.
- Xiao, L., & Wang, Y. (2021). Perceived Over-qualification and Job Satisfaction of New Graduates: A Moderated Mediation Model. In *1st International Symposium on Innovative Management and Economics (ISIME 2021)* (pp. 498-508). Amsterdam: Atlantis Press.
- Xu, W., & Zammit, K. (2020). Applying thematic analysis to education: A hybrid approach to interpreting data in practitioner research. *International Journal of Qualitative Methods*, 19, 1-9.
- Yang, J. H. (2018). The effect of entrepreneurship education on entrepreneurial leadership of university students. *Asia-Pacific Journal of Business Venturing and Entrepreneurship*, 13(3), 59-69.

- Yasar, S., & Cogenli, A. G. (2013). Determining validity and reliability of data gathering Instruments. *Procedia - Social and Behavioral Sciences*, 131, 504–509.
- Yin, M., & Wang, Y. (2017). Research on the effect of entrepreneurship education on college students' entrepreneurial capability. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(8), 5813-5819.
- Yorke, M. (2006). Employability in higher education: What it is – what it is not. *Learning & Employability Series one*. The Higher Education Academy, York.
- Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Resource*, 11(2), 49-54.
- Zahra, S. A. (2008). The virtuous cycle of discovery and creation of entrepreneurial opportunities. *Strategic Entrepreneurship Journal*, 2(3), 243-257.
- Zainea, L. N., Toma, S. G., & Tohănean, D. (2019). Volunteering, A Skills Incubator for Future Organizations. *Ovidius University Annals, Economic Sciences Series*, 19(2), 205-211.
- Zainol, N., R., & Al Mamun, A. (2018). Entrepreneurial competency, competitive advantage and performance of informal women micro-entrepreneurs in Kelantan, Malaysia, *Journal of Enterprising Communities: People and Places in the Global Economy*, 12(3), 299-321.
- Zakaria, H., & Alhassan, Y. N. (2019). Tertiary students' perceptions about their prospects of employability: The case of students in Ghana. *Africa Education Review*, 16(5), 134-157.
- Zarutskie, R. (2010). The role of top management team human capital in venture capital markets: Evidence from first-time funds. *Journal of Business Venturing*, 25(1), 155-172.
- Zepeda, P. A.G. (2015). Exploring relationships between entrepreneurship education and students' entrepreneurial intentions: A mixed method study of entrepreneurial pedagogies at Chilean Universities. *Dissertations and Theses. Paper 2633*.
- Zhao, D., & Smallbone, D. (2019). What affects nascent entrepreneurs' proactiveness. *Asia Pacific Management Review*, 24, 318-326.

- Zhao, Y., Zhao, X., Shi, J., Du, H., Marjerison, R. K., & Peng, C. (2022). Impact of entrepreneurship education in colleges and universities on entrepreneurial entry and performance. *Economic Research-Ekonomska Istraživanja*, 1-20.
- Zheng, Y. (2015). Trajectory data mining: An overview. *ACM Transactions on Intelligent Systems and Technology (TIST)*, 6(3), 1-41.
- Zhuge, C., Dong, C., Wei, B., & Shao, C. (2021). Exploring the role of technology innovations in the diffusion of electric vehicle with an agent-based spatial integrated model. *Resources, Conservation and Recycling*, 174, 105806.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods* (9th ed.). Botton: Cenage Learning.
- Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and Practice in Language Studies*, 3, 254-262.
- Zuber-Skerrit, O. (2002). The concept of action learning. *The Learning Organization*, 9(3), 114-124.

APPENDICES

APPENDIX A1: ETHICAL CLEARANCE APPROVAL LETTER



22 July 2019

Mr Enoch Mensah-Williams (217037590)
School of Management, IT & Governance
Pietermaritzburg Campus

Dear Mr Mensah-Williams,

Protocol reference number: HSSREC/00000011/2019

Project title: An evaluation of the effects of Entrepreneurship Education on Graduate Employability in Ghana

Full Approval – Expedited Application

This letter serves to notify you that your application received on 01 May 2019 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**

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

This approval is valid for one year from 22 July 2019.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

Yours sincerely,

Dr Rosemary Sibanda (Chair)

Humanities & Social Sciences Research Ethics Committee
Dr Rosemary Sibanda (Chair)
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

APPENDIX A2: ETHICAL CLEARANCE APPROVAL LETTER



28 June 2022

Enoch Mensah-Williams (217037590)
School Of Man Info Tech & Gov
Pietermaritzburg Campus

Dear E Mensah-Williams,

Protocol reference number: HSSREC/00000011/2019

Project title: An Evaluation of the Effects of Entrepreneurship Education on Graduate Employability in Ghana

Amended title: Effects of entrepreneurship education and entrepreneurial capabilities on graduate employability in Ghana

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 22 June 2022 has now been approved as follows:

- Change in title

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

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

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

Best wishes for the successful completion of your research protocol.

Yours faithfully



Professor Dipane Hialele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8360 / 4657 / 3657

Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

APPENDIX B: QUESTIONNAIRE
UNIVERSITY OF KWAZULU-NATAL COLLEGE OF LAW AND
MANAGEMENT STUDIES
SCHOOL OF MANAGEMENT, INFORMATION TECHNOLOGY AND
GOVERNANCE

QUESTIONNAIRE

This questionnaire has been designed to solicit information on the effects of entrepreneurship education and entrepreneurial capabilities on graduate employability in Ghana. The responses or answers to the questions would be used solely for academic purposes and shall be treated with utmost confidentiality and anonymity. I appreciate your maximum cooperation.

SECTION A: BACKGROUND INFORMATION

Please kindly answer the questions in this section

1. Please kindly indicate your gender

☐ Male

☐ Female

2. Which university did you graduate from?

.....

3. Which year did you graduate?

.....

4. What programme did you study at the university?

.....

5. Did you read for a course in entrepreneurship?

☐ Yes

☐ No

6. If answer to Q 5 is **YES**, please kindly indicate the duration of study (e.g. One Semester, one year etc.)

7. If answer to Q 5 is **YES**, were you equipped with entrepreneurial competencies that can enable you start a business in future?

☐ Yes

☐ No

8. If answer to Q 7 is **YES**, are you positioned to start a business in future?

☐ Yes

☐ No

**SECTION B: ENTREPRENEURIAL CAPABILITIES OF GRADUATES
THAT ENHANCE THEIR CHANCES OF EMPLOYMENT**

9. Kindly rate your view on the relevance of the entrepreneurial capabilities you possess from **very important = 1 to least important = 3** and the extent to which they influence your chances of being employed from **least agreement = 1 to very strong agreement = 7**.

Q9	I will gain employment if I have entrepreneurial competencies.....	Rank 1-3	Least Agreement (1) to Very Strong Agreement (7)						
			1	2	3	4	5	6	7
9.1	.... in work-related areas								
9.2	.... in general industry awareness								
9.3	.... in financial and economic literacy								
9.4	.... in imagination								
9.5	.... in speaking clearly and effectively								
9.6	.... writing clearly and effectively								
9.7	.... in critical and analytical thinking								
9.8	.... in ethical and sustainable thinking								
9.9	.... in analysing quantitative problems								
9.10	.... in effective personal learning								
9.11	.... in learning through experience								
9.12	.... in working effectively with others								
9.13	.... in understanding people of other racial and ethnic backgrounds								
9.14	.... in understanding different social contexts								
9.15	.... in valuing ideas								
9.16	.... in mobilising others								
9.17	.... in planning								
9.18	.... in time management								
9.19	.... in management of materials								
9.20	.... in persuading and negotiations								
9.21	.... in assessing marketplace								
9.22	.... in customer relationship								
9.23	.... in conducting marketing research								
9.24	.... in spotting opportunities								
9.25	.... in using computing and information technology								
9.26	.... in self-awareness								
9.27	.... in self-efficacy								
9.28	.... in self-insight								
9.29	.... in taking initiative								
9.30	.... in coping with uncertainty, ambiguity and risk								
9.31	.... in entrepreneurial identity								
9.32	.... in entrepreneurial passion								
9.33	.... in self- motivating								

9.34	.... Perseverance								
9.35	.... personal code of values and ethics								
9.36	.... contributing to the welfare of one's community								
9.37	.... in solving complex and real-world problems								

10 Are there other entrepreneurial capability or capabilities that can enhance your chances of employment?

☐ Yes ☐ No

11. If your answer to **Q10** is YES, please kindly mention them

.....
.....

12. To what extent does entrepreneurial capability (ies) in **Q11** above enhance your employment chances

.....
.....

SECTION C: RELEVANCE OF ENTREPRENEURIAL CAPABILITIES

13. Kindly rate your views on how relevant are entrepreneurial capabilities you possess to the organisation you work for from **least agreement = 1 to very strong agreement = 7**.

Q13	The organisation or my employer sees relevance in my entrepreneurial competencies	Least Agreement (1) to Very Strong Agreement (7)						
		1	2	3	4	5	6	7
13.1	.... in work-related areas							
13.2	.... in general industry awareness							
13.3	.... in financial and economic literacy							
13.4	.... in imagination							
13.5	.... in speaking clearly and effectively							
13.6	.... writing clearly and effectively							
13.7	.... in critical and analytical thinking							
13.8	.... in ethical and sustainable thinking							
13.9	.... in analysing quantitative problems							
13.10	.... in effective personal learning							
13.11	.... in learning through experience							
13.12	.... in working effectively with others							
13.13	.... in understanding people of other racial and ethnic backgrounds							
13.14	.... in understanding different social contexts							
13.15	.... in valuing ideas							
13.16	.... in mobilising others							
13.17	.... in planning							
13.18	.... in time management							

13.19	.... in management of materials							
13.20	.... in persuading and negotiations							
13.21	.... in assessing marketplace							
13.22	.... in customer relationship							
13.23	.... in conducting marketing research							
13.24	.... in spotting opportunities							
13.25	.... in using computing and information technology							
13.26	.... in self-awareness							
13.27	.... in self-efficacy							
13.28	.... in self-insight							
13.29	.... in taking initiative							
13.30	... in coping with uncertainty, ambiguity and risk							
13.31	.... in entrepreneurial identity							
13.32	.... in entrepreneurial passion							
13.33	.... in self-motivating							
13.34	.... in perseverance							
13.35	.... personal code of values and ethics							
13.36	.... contributing to the welfare of one's Community							
13.37	.... in solving complex and real-world problems							

14. Kindly rate your views on why the entrepreneurial capabilities you possess are relevant to the organisation you work for from **least agreement = 1** to **very strong agreement =7**.

Q14	Entrepreneurial Capabilities I possess are needed by employers or the organizations /firms because:	Least Agreement (1) to Very Strong Agreement (7)						
		1	2	3	4	5	6	7
the entrepreneurial Knowledge ...								
14.1	...increase the firm's competitive advantage							
14.2	... increases survival and sustainability of the organisation							
14.3	...promote successful performance outcomes in business growth							
14.4	...increase my performance							
the entrepreneurial Skills ...								
14.5	...increase the firm's competitive advantage							
14.6	... increases survival and sustainability of the organisation							
14.7	... promote successful performance outcomes in business growth							
14.8	...increase my performance							
the entrepreneurial Attitude...								
14.9	...increase the firm's competitive advantage							

14.10	.... increases survival and sustainability of the organisation							
14.11	... promote successful performance outcomes in business growth							
14.12	...increase my performance							

SECTION D: ENTREPRENEURSHIP ACTIVITIES THAT ENHANCE THE DEVELOPMENT OF ENTREPRENEURIAL CAPABILITIES IN LEARNERS

15. Kindly rate your views on entrepreneurial activities that enhance the development of entrepreneurial capabilities in you from **least agreement = 1 to very strong agreement = 7.**

Q15	Statements	Least Agreement (1) to Very Strong Agreement (7)						
		1	2	3	4	5	6	7
15.1	My participation in extracurricular activities enhanced the development of entrepreneurial knowledge							
15.2	The skill I possess are as a result of my participation in extracurricular activities							
15.3	I was able to developed my entrepreneurial attitudes when I participated in the extracurricular activities							
15.4	It will be easy for me to be employed because of my experiences gained from my participation in extracurricular activities							
15.5	The duration of the activities was long enough to enhance the development of entrepreneurial capabilities							
15.6	I had the opportunity to participate in workshops, seminars and conferences during the entrepreneurship education							
15.7	I acquired skills through the workshops, seminars and conferences							
15.8	I developed entrepreneurial knowledge from participating in workshops, seminars and conferences							
15.9	I had the opportunity to develop entrepreneurial attitudes because I participated in workshops, seminars and conferences							
15.10	The practical field work and the internship activities reinforced what I learnt in class							
15.11	I was able to acquire very real-work knowledge during the practical training							

15.12	I was able to develop my entrepreneurial skills during the students' internship programme							
15.13	My participation in the internship programme enhanced my entrepreneurial attitude							
15.14	I acquired relevant job experiences during the field work							
15.15	The characteristics of the company influenced the capabilities I acquired during the internship							
15.16	My participation in career guidance and talks within the entrepreneurship programme fostered the development of entrepreneurial skills							
15.17	Career guidance and talks assisted in the development of entrepreneurial knowledge							
15.18	Career guidance and talks fostered the development of entrepreneurial attitude							
15.19	I had the opportunity to acquire more non-cognitive competencies when I participated in an entrepreneurial club							
15.20	Through the entrepreneurial club I was able to acquire entrepreneurial competencies from my peers							
15.21	The capabilities I developed was influenced by hours I spent on club activities							
15.22	I acquired practical experience through volunteerism							
15.23	I developed skills as a result of the volunteering activities during the entrepreneurship education							
15.24	I developed entrepreneurial attitudes during volunteerism							
15.25	Participating in business plan competition assisted me to acquire skills							
15.26	I acquired knowledge from partaking in business plan competition							
15.27	I developed entrepreneurial attitude when I took part in the business plan competition							

16. Are there other avenues in entrepreneurship education that enhance your development of entrepreneurial capabilities?

☐ Yes ☐ No

17. If your answer to Q16 is YES, please kindly mention them

.....

SECTION E: INFLUENCE OF APPROACHES TO ENTREPRENEURSHIP EDUCATION ON THE DEVELOPMENT OF EMPLOYABILITY CAPACITIES AMONG UNIVERSITY STUDENTS

18. What approach to entrepreneurship education did you experience? **Select either A, B, or C**

Q18	Statements	Least Agreement (1) to Very Strong Agreement (7)							
		1	2	3	4	5	6	7	
A. Education about Entrepreneurship									
18.1	I was exposed to cognitively-oriented competencies about general issues in entrepreneurship								
18.2	I was able to memorised important entrepreneurial concepts								
18.3	The traditional lecturing method was used								
B. Education for Entrepreneurship									
18.4	I acquired cognitively-oriented competencies								
18.5	I was encouraged to practice entrepreneurial activities								
18.6	Career-oriented teaching methods were used								
C. Education through Entrepreneurship									
18.7	I acquired both cognitive and non- cognitive competencies								
18.8	I can setup my own business								
18.9	Action-oriented teaching strategies were used								

19. Kindly rate your views on the degree to which the approaches to entrepreneurship education influenced the development of the entrepreneurial capabilities you possess from **least agreement = 1 to very strong agreement = 7**.

Q19	The approach to assisted in the development of Entrepreneurial Competencies	Least Agreement (1) to Very Strong Agreement (7)						
		1	2	3	4	5	6	7
19.1	.... in work-related areas							
19.2	.... in general industry awareness							
19.3	.... in financial and economic literacy							
19.4	.... in imagination							
19.5	.... in speaking clearly and effectively							
19.6	.... writing clearly and effectively							
19.7	.... in critical and analytical thinking							
19.8	.... in ethical and sustainable thinking							
19.9	.... in analysing quantitative problems							
19.10	.... in effective personal learning							
19.11	.... in learning through experience							
19.12	.... in working effectively with others							
19.13	.... in understanding people of other racial and ethnic backgrounds							
19.14	.... in understanding different social Contexts							
19.15	.... in valuing ideas							
19.16	.... in mobilising others							
19.17	.... in planning							
19.18	.... in time management							
19.19	.... in management of materials							
19.20	.... in persuading							
19.21	.... in assessing marketplace							
19.22	.... in customer relationship							
19.23	.... in conducting marketing research							
19.24	.... in spotting opportunities							
19.25	.... in using computing and information technology							
19.26	.... in self-awareness							
19.27	.... in self-efficacy							
19.28	.... in self-insight							
19.29	.... in taking initiative							
19.30	.... in coping with uncertainty, ambiguity and risk							
19.31	.... in entrepreneurial identity							
19.32	.... in entrepreneurial passion							
19.33	.... in self- motivating							
19.34	.... in perseverance							
19.35	.... personal code of values and ethics							
19.36	.... contributing to the welfare of one's Community							

19.37 in solving complex and real-world problems							
-------	---	--	--	--	--	--	--	--

APPENDIX C1: INTERVIEW GUIDE FOR HR MANAGERS
UNIVERSITY OF KWAZULU-NATAL COLLEGE OF LAW AND
MANAGEMENT STUDIES
SCHOOL OF MANAGEMENT, INFORMATION TECHNOLOGY AND
GOVERNANCE

INTERVIEW GUIDE FOR HR MANAGERS

This interview guide has been designed to solicit information on the effects of entrepreneurship education and entrepreneurial capabilities on graduate employability in Ghana. The responses or answers to the questions would be used solely for academic purposes and shall be treated with utmost confidentiality and anonymity. I appreciate your maximum cooperation.

SECTION A: BACKGROUND INFORMATION

Please kindly answer the questions in this section

1. Please indicate your gender

☐

Male

☐

Female

2. Please indicate the name of the organisation you work for?

.....

3. Please kindly indicate your position in the organisation you work for?

.....

4. Kindly indicate the number of years you have worked for the organisation

.....

5. Please what is your highest level of education?

SECTION B: ENTREPRENEURIAL CAPABILITIES OF GRADUATES THAT ENHANCE THEIR CHANCES OF EMPLOYMENT

6. Kindly rate your view on entrepreneurial capabilities you expect from graduates from **very important = 1 to least important = 3** and the extent to which they influence their chances of being employed from **least agreement = 1 to very strong agreement = 7**.

Q6	I will employ the graduate if he/she has Entrepreneurial Competencies.....	Rank (1 - 3)	Least Agreement (1) to Very Strong Agreement (7)						
			1	2	3	4	5	6	7
6.1	.... in work-related areas								
6.2	.... in general industry awareness								
6.3	.... in financial and economic literacy								
6.4	.... in imagination								
6.5	.... in speaking clearly and effectively								
6.6	.... writing clearly and effectively								
6.7	.... in critical and analytical thinking								
6.8	.... in ethical and sustainable thinking								
6.9	.... in analysing quantitative problems								
6.10	.... in effective personal learning								
6.11	.... in learning through experience								
6.12	.... in working effectively with others								
6.13	.... in understanding people of other racial and ethnic backgrounds								
6.14	.... in understanding different social contexts								
6.15	.... in valuing ideas								
6.16	.... in mobilising others								
6.17	.... in planning								
6.18	.... in time management								
6.19	.... in management of materials								
6.20	.... in persuading and negotiations								
6.21	.... in assessing marketplace								
6.22	.... in customer relationship								
6.23	.... in conducting marketing research								
6.24	.... in spotting opportunities								
6.25	.... in using computing and information technology								
6.26	.... in self-awareness								
6.27	.... in self-efficacy								
6.28	.... in self-insight								
6.29	.... in taking initiative								

6.30	.... in coping with uncertainty, ambiguity and risk								
6.31	.... in entrepreneurial identity								
6.32	.... in entrepreneurial passion								
6.33	.... in self- motivating								
6.34	.... in perseverance								
6.35	.... personal code of values and ethics								
6.36	.... contributing to the welfare of one's community								
6.37	.... in solving complex and real-world problems								

6. Are there other entrepreneurial capability or capabilities that is or are relevant to your organisation?

Yes ☐ No ☐

7. If your answer to **Q7** is YES, please kindly mention them

.....
.....

8. To what extent does entrepreneurial capability (ies) in **Q8** above enhance graduate employability

.....

SECTION C: RELEVANCE OF ENTREPRENEURIAL CAPABILITIES

9. Questions on relevant of entrepreneurial capabilities of graduates to the needs of employers?

9.1 What entrepreneurial competencies do employers require from fresh graduates seeking employment?

9.2 Would one's capabilities related to his or her knowledge and skills about an institution be relevant to needs and aspiration of an organisation? Why?

9.3 Would the graduate's ability to write or speak clearly and efficiently be relevant to an organisation? Why?

9.4 Would one's capability to demonstrate strategic skills in thinking critically and analyse quantitative problems be relevant to the organisation he or she works with? How or why?

- 9.5 Do you see any usefulness if graduate possess capabilities in using computing and information technology? How or why?
- 9.6 Would you consider one's ability to learn effectively on his or her own as relevant to an organisation? How or why?
- 9.7 Do graduate capabilities in working effectively with others or understand people of other ethnic background be essential to an organisation's need? How or Why?
- 9.8 Do you think the ability of the graduate to plan and manage resources effectively be considered relevant in an organization? How or Why?
- 9.9 Would you consider one's ability to persuade others crucial to the development of an organization? How or Why?
- 9.10 Would you consider graduate's ability to spot and utilise opportunities essential in an organization? How or Why?
- 9.11 Do you think one's ability to demonstrate confidence and appreciate one's self is relevant to an organization? How or Why?
- 9.12 Do personal code of values and ethics play crucial role in organisations? How or why?
- 9.13 Does graduate's desire to contribute to the welfare of others essential to the development of organisation he or she works with? How or why?
- 9.14 Do you think the ability of the graduate to demonstrate entrepreneurial passion is important to an organisation? How or why?
- 9.15 Would you consider the ability of the graduate to cope with uncertainties as a crucial element in the developments of an organisation? How or why?
- 9.16 Would you consider the graduates' ability to demonstrate creativity in an organisation relevant? How or why?
- 9.17 Do you think the ability of the graduate to solve complex or real-world problems is important to his or her institution? How or why?
- 9.18 Would you consider one's ability to initiate and complete tasks important element in the attainment of your organisational goal? How or why?
- 9.19 Are there other entrepreneurial capability or capabilities that is or are relevant to the development of your organisation?

Yes ☐

No ☐

10. 20 If your answer to **Q10.19** is YES, please kindly mention them

.....
.....

10.21 How are capabilities gained through entrepreneurship education **Q10.20** above relevant to needs of the employers?

.....
.....
.....

SECTION D: ENTREPRENEURIAL ACTIVITIES THAT ENHANCE THE DEVELOPMENT OF ENTREPRENEURIAL CAPABILITIES IN LEARNERS

11. Questions on entrepreneurial avenues that ensure the development of entrepreneurial capabilities.

11.1. What should be the nature of these entrepreneurial avenues?

11.2 . What are the effects of extracurricular activities on development of entrepreneurial capabilities?

11.3 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in extracurricular activities?

11.4 What are the effects of workshops and conferences on development of entrepreneurial capabilities?

11.5 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in workshops and conferences in entrepreneurship education?

11.6 What are the effects of practical field work and internship on development of entrepreneurial capabilities?

11.7 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in practical field work and internship activities in entrepreneurship education?

11.8 What are the effects of career guidance and talks for students on development of entrepreneurial capabilities?

11.9 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in career guidance and talks in entrepreneurship education?

- 11.10 What are the effects of professional clubs on development of entrepreneurial capabilities?
- 11.11 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in professional clubs in entrepreneurship education?
- 11.12 What are the effects of volunteerism on development of entrepreneurial capabilities?
- 11.13 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in volunteerism in entrepreneurship education?
- 11.14 What are the effects of business plan competition on development of entrepreneurial capabilities?
- 11.15 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in business plan competition in entrepreneurship education?

SECTION E: INFLUENCE OF APPROACHES TO ENTREPRENEURSHIP EDUCATION ON THE DEVELOPMENT OF EMPLOYABILITY CAPACITIES AMONG UNIVERSITY STUDENTS

12. What approach to entrepreneurship education should tertiary institutions use?
 - a. cognitively-oriented competencies about general issues in entrepreneurship ☐
 - b. cognitively-oriented competencies with emphasis on entrepreneurial practice ☐
 - c. cognitive and non-cognitive capabilities with emphasis on entrepreneurial practice ☐
- 12.1 What should be the aim or the purpose of the approach you recommended?
- 12.2 What entrepreneurial knowledge could students develop when exposed to the approach recommended?
- 12.3 What entrepreneurial skills could students develop when exposed to the approach recommended?
- 12.4 What entrepreneurial attitudes could students develop when exposed to the approach recommended?
- 12.5 What teaching strategies or method should be employed in the recommended approach?
- 12.6 What entrepreneurial knowledge could students develop when recommended

teaching strategies or methods are employed?

- 12.7 What entrepreneurial skills could students develop when recommended teaching strategies or methods are employed?
- 12.8 What entrepreneurial attitudes could students develop when recommended teaching strategies or methods are employed?
- 12.9 What should be the content of the recommended approach?
- 12.10 What entrepreneurial knowledge could students develop when recommended content is employed?
- 12.11 What entrepreneurial skills could students develop when they are taught the content recommended?
- 12.12 What entrepreneurial attitudes could students develop when they are exposed to the content recommended?

APPENDIX C2: INTERVIEW GUIDE FOR LECTURERS
UNIVERSITY OF KWAZULU-NATAL COLLEGE OF LAW AND
MANAGEMENT STUDIES
SCHOOL OF MANAGEMENT, INFORMATION TECHNOLOGY AND
GOVERNANCE

INTERVIEW GUIDE FOR LECTURERS

This interview guide has been designed to solicit information on the effects of entrepreneurship education and entrepreneurial capabilities on graduate employability in Ghana. The responses or answers to the questions would be used solely for academic purposes and shall be treated with utmost confidentiality and anonymity. I appreciate your maximum cooperation.

SECTION A: BACKGROUND INFORMATION

Please answer the questions in this section by ticking (✓)

1. Please indicate your gender

☐

Male

☐

Female

2. Kindly indicate your highest qualification and area of specialisation.

(eg. PhD in Entrepreneurship)

.....

3. Where do you teach?

.....

4. At what level do you teach entrepreneurship

Undergraduate ☐ Postgraduate (Masters) ☐ Postgraduate (PhD) ☐

5. What is the name of the entrepreneurship programme or course you teach?

.....

6. What is the study duration of the entrepreneurship programme or course you teach? (eg. One Semester, One Year)

.....

7. Do you own a business?

Yes

☐

No

☐

8. If answer to Q7 is Yes, Kindly indicate the nature of your business

.....

SECTION B: ENTREPRENEURIAL CAPABILITIES OF GRADUATES THAT ENHANCE THEIR CHANCES OF EMPLOYMENT

9. Kindly rate your view on entrepreneurial capabilities you expect from graduates to acquire from **very important = 1 to least important = 3** and the extent to which they influence their chances of being employed from **least agreement = 1 to very strong agreement = 7**.

Q9	Our graduates will be employed if they acquire entrepreneurial competencies.....	Rank (1 - 3)	Least agreement (1) to Very Strong Agreement (7)						
			1	2	3	4	5	6	7
9.1	.... in work-related areas								
9.2	.... in general industry awareness								
9.3	.... in financial and economic literacy								
9.4	.... in imagination								
9.5	.... in speaking clearly and effectively								
9.6	.... writing clearly and effectively								
9.7	.... in critical and analytical thinking								
9.8	.... in ethical and sustainable thinking								
9.9	.... in analysing quantitative problems								
9.10	.... in effective personal learning								
9.11	.... in learning through experience								
9.12	.... in working effectively with others								
9.13	.... in understanding people of other racial and ethnic backgrounds								
9.14	.... in understanding different social contexts								
9.15	.... in valuing ideas								
9.16	.... in mobilising others								
9.17	.... in planning								
9.18	.... in time management								
9.19	.... in management of materials								
9.20	.... in persuading and negotiations								
9.21	.... in assessing marketplace								
9.22	.... in customer relationship								
9.23	.... in conducting marketing								
9.24	.... in spotting opportunities								
9.25	.... in using computing and information technology								
9.26	.... in self-awareness								

9.27	.... in self-efficacy								
9.28	.... in self-insight								
9.29	.... in taking initiative								
9.30	.... in coping with uncertainty, ambiguity and risk								
9.31	.... in entrepreneurial identity								
9.32	.... in entrepreneurial passion								
9.33	.... in self- motivating								
9.34	.... in perseverance								
9.35	.... personal code of values and ethics								
9.36	.... contributing to the welfare of one's community								
9.37	.... in solving complex and real-world problems								

10. Are there other entrepreneurial capability or capabilities that is or are relevant to your organisation?

Yes ☐

No ☐

11. If your answer to **Q10** is YES, please kindly mention them

.....
.....

12. To what extent does entrepreneurial capability (ies) in **Q11** above enhance graduate employability

.....
.....

SECTION C: RELEVANCE OF ENTREPRENEURIAL CAPABILITIES

13. Questions on relevant of entrepreneurial capabilities of graduates to the needs of employers?

13.1 What entrepreneurial competencies do employers require from fresh graduates seeking employment?

13.2 Would one's capabilities related to his or her knowledge and skills about an institution be relevant to needs and aspiration of an organisation? Why?

13.3 Would the graduate's ability to write or speak clearly and efficiently be relevant to an organisation? Why?

13.4 Would one's capability to demonstrate strategic skills in thinking critically and

analyse quantitative problems be relevant to the organisation he or she works with?
How or why?

- 13.5 Do you see any usefulness if graduate possess capabilities in using computing and information technology? How or why?
- 13.6 Would you consider one's ability to learn effectively on his or her own as relevant to an organisation? How or why?
- 13.7 Do graduate capabilities in working effectively with others or understand people of other ethnic background be essential to an organisation's need? How or Why?
- 13.8 Do you think the ability of the graduate to plan and manage resources effectively be considered relevant in an organization? How or Why?
- 13.9 Would you consider one's ability to persuade others crucial to the development of an organization? How or Why?
- 13.10 Would you consider graduate's ability to spot and utilise opportunities essential in an organization? How or Why?
- 13.11 Do you think one's ability to demonstrate confidence and appreciate one's self is relevant to an organization? How or Why?
- 13.12 Do personal code of values and ethics play crucial role in organisations? How or why?
- 13.13 Does graduate's desire to contribute to the welfare of others essential to the development of organisation he or she works with? How or why?
- 13.14 Do you think the ability of the graduate to demonstrate entrepreneurial passion is important to an organisation? How or why?
- 13.15 Would you consider the ability of the graduate to cope with uncertainties as a crucial element in the developments of an organisation? How or why?
- 13.16 Would you consider the graduates' ability to demonstrate creativity in an organisation relevant? How or why?
- 13.17 Do you think the ability of the graduate to solve complex or real-world problems is important to his or her institution? How or why?
- 13.18 Would you consider one's ability to initiate and complete tasks important element in the attainment of your organisational goal? How or why?
- 13.19 Are there other entrepreneurial capability or capabilities that is or are relevant to the development of your organisation?

Yes ☐ No ☐

13.20 If your answer to **Q13.19** is YES, please kindly mention them

13.21 1 How are capabilities gained through entrepreneurship education **Q13.20** above relevant to needs of the employers?

SECTION D: ENTREPRENEURIAL ACTIVITIES THAT ENHANCE THE DEVELOPMENT OF ENTREPRENEURIAL CAPABILITIES IN LEARNERS

14. Questions on entrepreneurial avenues that ensure the development of entrepreneurial capabilities.

14.1 What should be the nature of these entrepreneurial avenues?

14.2 What are the effects of extracurricular activities on development of entrepreneurial capabilities?

14.3 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in extracurricular activities?

14.4 What are the effects of workshops and conferences on development of entrepreneurial capabilities?

14.5 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in workshops and conferences in entrepreneurship education?

14.6 What are the effects of practical field work and internship on development of entrepreneurial capabilities?

14.7 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in practical field work and internship activities in entrepreneurship education?

14.8 What are the effects of career guidance and talks for students on development of entrepreneurial capabilities?

14.9 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in career guidance and talks in entrepreneurship education?

14.10 What are the effects of professional clubs on development of entrepreneurial

capabilities?

- 14.11 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in professional clubs in entrepreneurship education?
- 14.12 What are the effects of volunteerism on development of entrepreneurial capabilities?
- 14.13 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in volunteerism in entrepreneurship education?
- 14.14 What are the effects of business plan competition on development of entrepreneurial capabilities?
- 14.15 What are some of the entrepreneurial capabilities that are likely to be developed as a result of one's participation in business plan competition in entrepreneurship education?

SECTION E: INFLUENCE OF APPROACHES TO ENTREPRENEURSHIP EDUCATION ON THE DEVELOPMENT OF EMPLOYABILITY CAPACITIES AMONG UNIVERSITY STUDENTS

- 15. What approach to entrepreneurship education should tertiary institutions use?
 - a. cognitively-oriented competencies about general issues in entrepreneurship ☐
 - b. cognitively-oriented competencies with emphasis on entrepreneurial practice ☐
 - c. cognitive and non-cognitive capabilities with emphasis on entrepreneurial practice ☐
- 15.1 What should be the aim or the purpose of the approach you recommended?
- 15.2 What entrepreneurial knowledge could students develop when exposed to the approach recommended?
- 15.3 What entrepreneurial skills could students develop when exposed to the approach recommended?
- 15.4 What entrepreneurial attitudes could students develop when exposed to the approach recommended?
- 15.5 What teaching strategies or method should be employed in the recommended approach?
- 15.6 What entrepreneurial knowledge could students develop when recommended teaching strategies or methods are employed?

- 15.7 What entrepreneurial skills could students develop when recommended teaching strategies or methods are employed?
- 15.8 What entrepreneurial attitudes could students develop when recommended teaching strategies or methods are employed?
- 15.9 What should be the content of the recommended approach?
- 15.10 What entrepreneurial knowledge could students develop when recommended content is employed?
- 15.11 What entrepreneurial skills could students develop when they are taught the content recommended?
- 15.12 What entrepreneurial attitudes could students develop when they are exposed to the content recommended?

**APPENDIX D1: INFORMED CONSENT LETTER FOR GRADUATES
UNIVERSITY OF KWAZULU-NATAL
SCHOOL OF MANAGEMENT, IT AND GOVERNANCE**

Dear Respondent,

Research Project

Researcher: [Enoch Mensah-Williams] (Telephone number: [+233 245314123]) (Email: [217037590 @ukzn.stu.ac.za/emensah-williams@ucc.edu.gh/menswilliams@gmail.com]) **Supervisor:** [Dr. Evelyn Derera] (Telephone number: [+27 833951949]) (Email: [Dererae@ukzn.ac.za])

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

I, Enoch Mensah-Williams, am an [PhD] student in the School of Management, IT and Governance, at the University of KwaZulu-Natal. You are invited to participate in a research project entitled “*Effects of Entrepreneurship Education and Entrepreneurial Capabilities on Graduate Employability in Ghana*”. The aim of this study is to: evaluate how entrepreneurship education influences the development of employable capabilities in graduates in Ghana.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records will be maintained by the researcher and [University of KwaZulu-Natal, Pietermaritzburg Campus], UKZN. All collected data will be used solely for research purposes and will be destroyed after 5 years. This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number_____).

The questionnaire should take about 45 minutes to complete. Thank you for your time.

Sincerely

Researcher's signature _____ Date _____
[Enoch Mensah-Williams]

This page is to be retained by participant

UNIVERSITY OF KWAZULU-NATAL

School of Management, IT and Governance Research Project

Researcher: [Enoch Mensah-Williams] (Telephone number: [+233 245314123]) (Email:

[21703590 @ukzn.stu.ac.za/emensah-williams@

ucc.edu.gh/menswilliams@gmail.com]

Supervisor: [Dr. Evelyn Derera] (Telephone number: [+27 833951949]) (Email: [\[Dererae@ukzn.ac.za\]](mailto:Dererae@ukzn.ac.za))

Research Office: Humanities & Social Sciences Research Ethics Administration, Govan

Mbeki Building, Westville Campus, Tel: +27 (0)31 260 8350, Email:

hssreclms@ukzn.ac.za

CONSENT

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

Additional consent, where applicable

Signature of Participant

Date

This page is to be retained by researcher

**APPENDIX D2: INFORMED CONSENT LETTER FOR ACADEMICS AND HR
MANAGERS
UNIVERSITY OF KWAZULU-NATAL
School of Management, IT and Governance**

Dear Respondent,

Research Project

Researcher: [Enoch Mensah-Williams] (Telephone number: [+233 245314123]) (Email: [217037590 @ukzn.stu.ac.za/emensah-wiliams@ucc.edu.gh/menswilliams@gmail.com]) **Supervisor:** [Dr. Evelyn Derera] (Telephone number: [+27 833951949]) (Email: [Dererae@ukzn.ac.za])

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

I, Enoch Mensah-Williams, am an [PhD] student in the School of Management, IT and Governance, at the University of KwaZulu-Natal. You are invited to participate in a research project entitled “*Effects of Entrepreneurship Education and Entrepreneurial Capabilities on Graduate Employability in Ghana*”. The aim of this study is to: evaluate how entrepreneurship education influences the development of employable capabilities in graduates in Ghana.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records will be maintained by the researcher and [University of KwaZulu-Natal, Pietermaritzburg Campus], UKZN. All collected data will be used solely for research purposes and will be destroyed after 5 years. This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number _____).

The interviews should take about 45 minutes to 1 hour long to complete. Thank you for your time.

Sincerely

Researcher's signature _____ Date _____

[Enoch Mensah-Williams]

This page is to be retained by participant

UNIVERSITY OF KWAZULU-NATAL

School of Management, IT and Governance Research Project

Researcher: [Enoch Mensah-Williams] (Telephone number: [+233 245314123]) (Email: [[21703590 @ukzn.stu.ac.za](mailto:21703590@ukzn.stu.ac.za)]/emensah-wliliams@ucc.edu.gh/menswilliams@gmail.com])

Supervisor: [Dr. Evelyn Derera] (Telephone number: [+27 833951949]) (Email: [Dererae@ukzn.ac.za])

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

CONSENT

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

Additional consent, where applicable I hereby provide consent to:

Audio-record my interview YES / NO

Video-record my interview YES / NO

Use of my photographs for research purposes YES / NO

Signature of Participant

Date

This page is to be retained by researcher

APPENDIX E: TEXT FREQUENCY COUNTS FOR ACADEMICS

Word	Length	Count	Weighted Percentage (%)
entrepreneurial	15	290	22.66
Skill	5	161	12.58
Attitude	8	89	6.95
Self	4	32	2.50
Knowledge	9	26	2.03
Effectively	11	23	1.80
Awareness	9	16	1.25
Learning	8	16	1.25
Management	10	16	1.25
Others	6	16	1.25
Personal	8	16	1.25
Problems	8	16	1.25
Clearly	7	15	1.17
Thinking	8	15	1.17
understanding	13	13	1.02
Ambiguity	9	8	0.62
Analysing	9	8	0.62
Analytical	10	8	0.62
Areas	5	8	0.62
Assessing	9	8	0.62
Code	4	8	0.62
Complex	7	8	0.62
Computing	9	8	0.62
Contexts	8	8	0.62
Coping	6	8	0.62
Critical	8	8	0.62
Different	9	8	0.62
Effective	9	8	0.62
efficacy	8	8	0.62
ethics	6	8	0.62
experience	10	8	0.62
general	7	8	0.62
ideas	5	8	0.62
industry	8	8	0.62
information	11	8	0.62
initiative	10	8	0.62
insight	7	8	0.62
marketplace	11	8	0.62
materials	9	8	0.62
mobilising	10	8	0.62
motivating	10	8	0.62
negotiations	12	8	0.62
opportunities	13	8	0.62
passion	7	8	0.62
perseverance	12	8	0.62
persuading	10	8	0.62
planning	8	8	0.62
quantitative	12	8	0.62
real	4	8	0.62
related	7	8	0.62
risk	4	8	0.62


social	6	8	0.62
solving	7	8	0.62
speaking	8	8	0.62
spotting	8	8	0.62
taking	6	8	0.62
technology	10	8	0.62
time	4	8	0.62
uncertainty	12	8	0.62
using	5	8	0.62
values	6	8	0.62
valuing	7	8	0.62
work	4	8	0.62
working	7	8	0.62
world	5	8	0.62
conducting	10	7	0.55
customer	8	7	0.55
ethical	7	7	0.55
marketing	9	7	0.55
relationship	12	7	0.55
research	8	7	0.55
sustainable	11	7	0.55
writing	7	7	0.55
economic	8	6	0.47
financial	9	6	0.47
identity	8	6	0.47
literacy	8	6	0.47
backgrounds	11	5	0.39
ethnic	6	5	0.39
people	6	5	0.39
racial	6	5	0.39
community	9	4	0.31
contributing	12	4	0.31
imagination	11	4	0.31
one	3	4	0.31
welfare	7	4	0.31

APPENDIX F: TEXT FREQUENCY COUNT - HR MANAGERS

Word	Length	Count	Weighted Percentage (%)
entrepreneurial	15	378	22.26
skill	5	225	13.25
attitude	8	115	6.77
self	4	46	2.71
effectively	11	36	2.12
knowledge	9	27	1.59
clearly	7	24	1.41
management	10	24	1.41
others	6	24	1.41
personal	8	24	1.41
thinking	8	24	1.41
learning	8	23	1.35
awareness	9	22	1.30
problems	8	16	0.94
understanding	13	15	0.88
ambiguity	9	12	0.71
analytical	10	12	0.71
code	4	12	0.71
computing	9	12	0.71
coping	6	12	0.71
critical	8	12	0.71
customer	8	12	0.71
effective	9	12	0.71
ethical	7	12	0.71
ethics	6	12	0.71
ideas	5	12	0.71
information	11	12	0.71
initiative	10	12	0.71
insight	7	12	0.71
materials	9	12	0.71
mobilising	10	12	0.71
motivating	10	12	0.71
perseverance	12	12	0.71
planning	8	12	0.71
relationship	12	12	0.71
risk	4	12	0.71
speaking	8	12	0.71
sustainable	11	12	0.71
taking	6	12	0.71
technology	10	12	0.71
time	4	12	0.71
uncertainty	12	12	0.71
using	5	12	0.71
values	6	12	0.71
valuing	7	12	0.71
working	7	12	0.71
writing	7	12	0.71
efficacy	8	11	0.65
experience	10	11	0.65
general	7	11	0.65
industry	8	11	0.65
negotiations	12	11	0.65

passion	7	11	0.65
persuading	10	11	0.65
complex	7	10	0.59
conducting	10	10	0.59
marketing	9	10	0.59
real	4	10	0.59
research	8	10	0.59
solving	7	10	0.59
world	5	10	0.59
areas	5	9	0.53
assessing	9	9	0.53
marketplace	11	9	0.53
related	7	9	0.53
work	4	9	0.53
contexts	8	8	0.47
different	9	8	0.47
social	6	8	0.47
backgrounds	11	7	0.41
economic	8	7	0.41
Ethnic	6	7	0.41
Financial	9	7	0.41
Literacy	8	7	0.41
Opportunities	13	7	0.41
People	6	7	0.41
Racial	6	7	0.41
Spotting	8	7	0.41
Analysing	9	6	0.35
Quantitative	12	6	0.35

**APPENDIX G: GATEKEEPER'S LETTER FOR STATE ENTERPRISES
COMMISSION**

 <small>REPUBLIC OF GHANA</small>	<h2 style="margin: 0;">STATE ENTERPRISES COMMISSION</h2> <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 5px;">5-7 Liberia Avenue, Ministries, AccraDigital Address: GA-107-5175P.O. Box M 393, Accra, Ghana</div>
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SEC/SCR 131/5026

16TH JANUARY, 2019

TO WHOM IT MAY CONCERN

PERMISSION LETTER FOR MR. ENOCH MENSAH-WILLIAMS

We kindly write to request your outfit to provide **MR. ENOCH MENSAH-WILLIAMS**, a Ghanaian pursuing his doctoral programme at the University of KwaZulu-Natal, South Africa, the necessary support to enable him conduct his research.

He is conducting his study of the topic **"An evaluation of the effects of entrepreneurship education on graduate employability in Ghana"**.

He would wish the National Service person in your outfit to fill questionnaires and also interview their immediate supervisor or Human Resource Manager.

We appreciate your co-operation.

EXECUTIVE CHAIRMAN
STATE ENTERPRISES COMMISSION
P. O. BOX M. 393
ACCRA

HON. STEPHEN ASAMOAH BOATENG
EXECUTIVE CHAIRMAN

CC: ENOCH MENSAH-WILLIAMS (0245314123)
PRINCIPAL RESEARCH ASSISTANT
UNIVERSITY OF CAPE COAST
CAPE COAST

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GHANA NATIONAL PETROLEUM CORPORATION
TEMA

THE DIRECTOR-GENERAL
GHANA PORTS AND HARBOURS AUTHORITY
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THE MANAGING DIRECTOR
PSC TEMA SHIP YARD (PSC)
TEMA

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THE CHIEF EXECUTIVE ✓
GHANA COCOA BOARD
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ACCRA

THE MANAGING DIRECTOR
GIHOC DISTILLERIES COMPANY LIMITED
ACCRA

THE MANAGING DIRECTOR
GRAPHIC COMMUNICATIONS GROUP LTD.
ACCRA

THE MANAGING DIRECTOR
TDC DEVELOPMENT COMPANY LTD.
TEMA

THE MANAGING DIRECTOR
PRECIOUS MINERALS MARKETING COMPANY LTD.
ACCRA

THE MANAGING DIRECTOR
GHANA WATER COMPANY LTD.
ACCRA

THE MANAGING DIRECTOR
VOLTA ALUMINUM COMPANY LIMITED
TEMA

THE MANAGING DIRECTOR
GHANA REINSURANCE COMPANY LIMITED
ACCRA

THE MANAGING DIRECTOR
NATIONAL INVESTMENT BANK
ACCRA

**APPENDIX H: GATEKEEPER'S LETTER FROM THE CENTRE FOR
ENTREPRENEURSHIP AND SMALL ENTERPRISE DEVELOPMENT**

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

SCHOOL OF BUSINESS

CENTRE FOR ENTREPRENEURSHIP AND SMALL ENTERPRISE DEVELOPMENT (CESED)

Telephone: 03320-91499
Direct: 03321-37870
Telegrams: University, Cape Coast
E-mail: cesed@ucc.edu.gh
cesed.hod@ucc.edu.gh
Website: cesed.ucc.edu.gh



**UNIVERSITY POST OFFICE
CAPE COAST, GHANA**

14th December, 2018

Our Ref: *SB/P 14941*

Your Ref:

Mr. Enoch Mensah-Williams
CESED
University of Cape Coast
Cape Coast



Dear Mensah-Williams,

RE: REQUEST FOR PERMISSION LETTER

We write to inform you that you have been permitted to conduct your research, on the topic "An Evaluation of the Effects of Entrepreneurship Education on Graduate Employability in Ghana" at the Centre for Entrepreneurship and Small Enterprise Development, the School of Business, University of Cape.

We wish you well in your research.

Yours sincerely,



Dr. (Mrs.) Mavis S. Benneh Mensah
Head

**APPENDIX I: GATEKEEPER'S LETTER FROM THE UNIVERSITY OF
GHANA DEPARTMENT OF MARKETING AND ENTREPRENEURSHIP**



UNIVERSITY OF GHANA
BUSINESS SCHOOL
DEPARTMENT OF MARKETING AND
ENTREPRENEURSHIP

UG BS
University of Ghana Business School

D.MKENT/09

Ref. No.:

14th January, 2019

Mr, Enoch Mensah-Williams
Centre for Entrepreneurship and Small Scale Enterprise
University of Cape Coast
School of Business
Cape Coast

Dear Sir,

RE: REQUEST FOR PERMISSION LETTER

Your letter on the above subject refers.

I respectfully write to grant you permission to conduct your research in the Department of Marketing and Entrepreneurship.

Yours faithfully,



Prof. Robert Ebo Hinson
(Head of Department)

**APPENDIX J: GATEKEEPER'S LETTER FROM THE CAPE COAST
TECHNICAL UNIVERSITY**

CAPE COAST TECHNICAL UNIVERSITY

(OFFICE OF THE REGISTRAR)

Tel: (03321) 33205/33090
Website: www.cctu.edu.gh
Our Ref: CCTU/494/VOL. 1/56

Your Ref:



P. O. Box AD 50

Cape Coast

December 19, 2018

MR. ENOCH MENSAH-WILLIAMS
CENTRE FOR ENTREP. & SMALL ENTERPRISE DEV'T
SCHOOL OF BUSINESS
UNIVERSITY OF CAPE COAST
CAPE COAST

Dear Mr. Mensah-Williams,

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

Your letter dated December 5, 2018 on the above-mentioned subject refers.

We write to inform you that you have been granted permission to collect data in the Cape Coast Technical University (CCTU) for your research project entitled: "An Evaluation of the Effects of Entrepreneurship Education on Graduate Employability in Ghana".

We shall offer you the needed cooperation.

Thank you.

Yours sincerely,

Fanny A. Darkey (Mrs.) ChPA, CMC
Acting Registrar

Cc: Dr. Evelyn Derera (The Supervisor, University of Kwazulu-Natal, South Africa)