

**UNIVERSITY OF GHANA  
COLLEGE OF HUMANITIES**

**PSYCHOSOCIAL PREDICTORS OF ENTREPRENEURIAL BEHAVIOURS AMONG  
FINAL YEAR UNDERGRADUATE STUDENTS IN GHANA**

**BY  
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**A THESIS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL  
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MPhil  
PSYCHOLOGY DEGREE**

**DEPARTMENT OF PSYCHOLOGY**

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**JULY, 2017**

**DECLARATION**

I, Pious Affum, do hereby declare that this thesis is my own work conducted in the Department of Psychology of University of Ghana under the effective supervision of Dr. Inusah Abdul-Nasiru and Dr. Samuel Atindanbila. To the best of my knowledge, it contains neither materials previously published by another person(s) nor materials which have been accepted for the award of any other degree of the University or elsewhere. All references to the works of other researchers and/or organization(s) have been duly acknowledged. With the approval of my supervisors, I present this thesis to the School of Graduate Studies through the Department of Psychology, University of Ghana, Legon.

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## **DEDICATION**

I dedicate this research work to my lovely mothers Hannah Nyarko (Maa Nyarko) and Juliana Frimpong (Maa Julie) for their care, love and support throughout my studies.



*Wish you long life!!!*

## ACKNOWLEDGEMENT

I would first of all like to show my greatest appreciation to the almighty God for giving me life, strength and wisdom for the execution of this project work. It really wouldn't have been possible without Him, I am most grateful.

My sincerest gratitude also goes to my supervisors who took their time to guide me throughout the project work. Thank you Dr. Inusah Abdul-Nasiru and Dr. Samuel Atindanbila for your contribution and also being supportive. May God richly bless you

I also wish to acknowledge my good friend Mr. Francis Agyei for his constructive ideas and discussions which helped in shaping my thought in the course of the project work. I would also like to thank my research assistances for their effort, most especially my junior brother Bernard Mensah Affum for his coordination.

I would once again like to acknowledge this special group of people for their assistance; Mr Asamoah Bright (Head teacher), Mr. Samuel Obeng Japan (Assistant Head teacher), Sir Bismark Peprah Boakye, Sir George Boamah, Sir Richmond Obeng Amponsah, Madam Sandra Adwoa Anderson, Sir Emmanuel Konadu Agyekum and Madam Janet Nimarko all of B/Tontokrom D/A JHS, Amansie West District. Also, I am thankful to the past and current circuit supervisors (CS) of Tontokrom Circuit; Mr. Seth Hammond and Mr. Amenudzi Hubbert for their support and encouragement.

In addition, I am appreciative to my respondents from the selected universities (KNUST, UG, GBUC, MUC) for their vibrant responses for the progress of the project work.

Finally, big thanks to my entire family for their love, care and support. Most especially Mr. Henry Affum (father), Asare Francis (brother), Henry Affum Jnr (Brother), Ruth Affum (sister), Hannah Nyarko and Juliana Frimpong (mothers). May the almighty God bless you all.

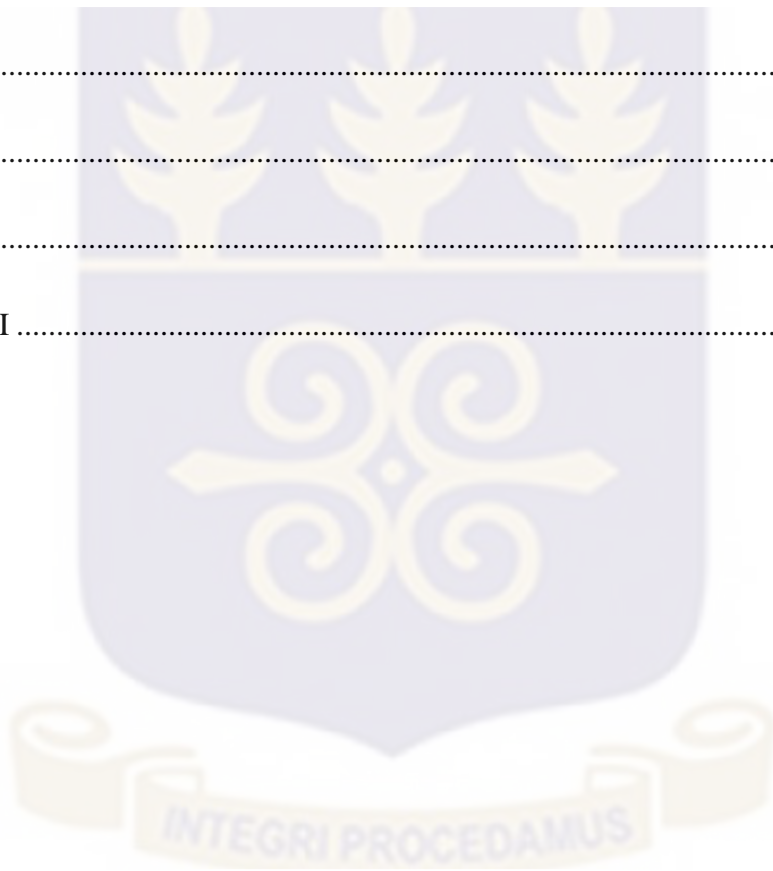
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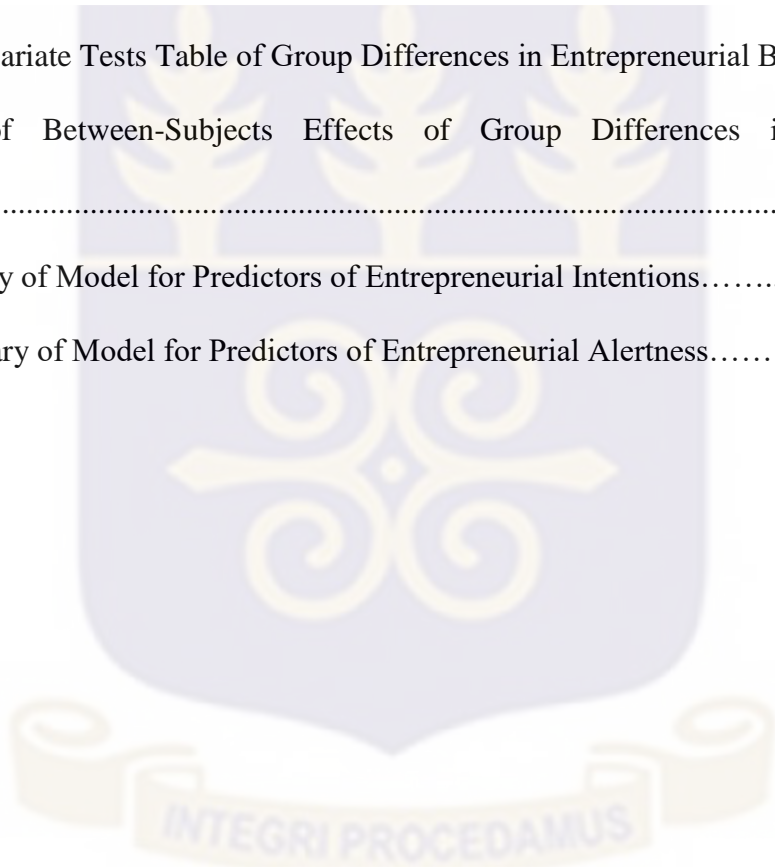
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## ABSTRACT

High levels of unemployment among university graduates in Ghana has course for concern, leading different stakeholders to promote the idea of self-employment among university students. Entrepreneurship research in Ghana, especially among university students has therefore increased. However, for most part of entrepreneurship research among university students, entrepreneurship has been detached from the context of career planning in general. Entrepreneurship research in Ghana has mainly been underpinned by the narrative of being a means of escaping unemployment. Using the occupational choice model and entrepreneurial motivation theory as framework, the present study sought to integrate entrepreneurial behaviours into the context of career planning by examining the factors that influence self-employment as a career path. The study was conducted among a sample of 344 final year students from 4 universities in Ghana. Findings show that career anchor and self-evaluations are critical when understanding entrepreneurial behaviour among undergraduate students. Entrepreneurial climate in universities was also found to affect entrepreneurial behaviours among the students. These findings are discussed and ‘multi-level model of student entrepreneurship’ proposed within the context of researching and promoting student entrepreneurship.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

Unemployment constitutes one of the key developmental challenges in Ghana (Baah-Boateng, 2013; Canavan et al. 2013). This is reflected in the high numbers of active young people without jobs in the country due to limited job openings available. The high levels of unemployment lead to several psychosocial problems (Canavan et al. 2013). Burns (2015) for instance has reported that unemployment and poverty constitute major social determinants of mental health. In Ghana, increased odds of being unemployed has been found to be associated with increased psychological distress (Canavan et al. 2013).

The unemployment rates in the country are said to be highest in urban areas and worse among those with tertiary education (Baah-Boateng, 2013). The unemployment situation in Ghana therefore calls for policies and interventions that will inspire young people, especially university students and graduates to create their own job rather than put their hopes on non-existent jobs after school (Baah-Boateng, 2013; Canavan et al., 2013). Entrepreneurship has therefore seen high level of high awareness in policy discourse in Ghana.

This has stimulated empirical research into understanding the complexities of entrepreneurial behaviours or the tendency of being self-employed among undergraduate students in Ghana. Understanding the complex psychosocial factors that shape entrepreneurial behaviours would help in developing interventions that encourage university students to be self-employed.

The present study makes empirical contribution to the entrepreneurship discourse by examining psychosocial predictors of entrepreneurial behaviours among final year undergraduate students in selected universities in Ghana. This was done from social psychological perspective, using levels of analysis to examine psychological, social and structural factors that underpin entrepreneurial behaviours among university students.

### **1.1.1 Entrepreneurial Behaviours among University Students**

Entrepreneurship among university students has become imperative discourse, especially in low and middle-income countries (LMICs) due to high levels of unemployed graduates (European Commission, 2003). Entrepreneurship is seen as the most important tool for addressing high levels of unemployed graduates in LMICs. This is because in the midst of non-existent job opportunities, entrepreneurship gives chance to university students and graduates to create their own employment to improve their status in society (European Commission, 2003). The study of entrepreneurial behaviours has therefore become one of the fastest growing fields within the social sciences with diverse models and theories (Katz, 2003).

Entrepreneurial behaviours are broadly defined as the quest to innovate and undertake something new, including the creation of something new and making the innovative idea accessible to the larger society (Stambaugh, Martinez, Lumpkin & Kataria, 2017). Within the context of university education and employment, entrepreneurial behaviours are conceptualized as the behavioural processes or dynamics involved in university students or graduates turning innovative ideas into profitable ventures (Hussain, 2016).

Entrepreneurial behaviours therefore embrace complex sets of behavioural processes involved in creating a new venture (Shaver, 2014). In this present study, entrepreneurial behaviours are used

interchangeably with tendencies of being self-employed and both were conceptualized as the behavioural processes that university students go through in their quest to create their own jobs. Two main processes or variables were examined; entrepreneurial intentions and entrepreneurial alertness, which constitute the dependent variables in this study.

#### **1.1.1.1 Entrepreneurial Intentions**

Entrepreneurial intentions constitute the most researched constructs within the field of entrepreneurship in general and psychology of entrepreneurship in particular. The focus on entrepreneurial intentions is as a result of social psychological theories of reasoned action and planned behaviours that propose intentions as the best predictor of behaviours (Ajzen, 2011). Thus, the underlying assumption in this line of research has been that students who have intentions of becoming entrepreneurs are more likely to create their own jobs during or after school.

Entrepreneurial intentions are therefore conceptualized cognitively as entrepreneurial mindset to mean the decisions of carrying out entrepreneurial behaviours or engaging in entrepreneurial activities (Alexander & Honig, 2016; Iakovleva, Kolvereid & Stephan, 2011). In the present study, entrepreneurial intentions are conceptualized as the intentional decisions of university students to create their own jobs during or after school. Thus, entrepreneurial intentions measured the extent to which the final year students planned of creating a business venture to employ themselves after school.

#### **1.1.1.2 Entrepreneurial Alertness**

Entrepreneurial alert, in comparison to entrepreneurial intention is a relatively new line of research within the entrepreneurship literature. This line of research came mainly as a result of the

complexities of the intention-behavior gap within social psychological research. Empirical evidence abounds in social psychology to the effect that intentions do not always lead to behaviours (Kautonen, Gelderen & Fink, 2015; Sheeran, 2002). The underlying argument is that merely having entrepreneurial intentions is not enough to predict entrepreneurial behaviour but that the intention-behavior gap is mediated by action (Kautonen et al., 2015). Entrepreneurial alertness line of research therefore came to account for the actions that had been missing in the psychological of entrepreneurship literature. Opportunities lie at the heart of entrepreneurship and therefore after individuals develop entrepreneurial intentions, they should become alert to opportunities and actively seek them.

Entrepreneurial alertness is therefore defined as the ability to recognize and capitalize on opportunities for entrepreneurial purposes (Gaglio & Katz, 2001; Tang, Kacmar & Busenitz, 2012). Entrepreneurial alertness therefore represents the extent to which individuals are actively seeking for opportunities to create business ventures by engaging in activities such as networking, scanning and searching for opportunities and evaluating and judging the opportunities (Gaglio & Winter, 2017; Tang et al., 2012). In the current study, entrepreneurial alertness was therefore conceptualized as the extent to which the students are actively engaged in identifying opportunities to establish their own business after school.

### **1.1.2 Predictors of Entrepreneurial Behaviours**

Entrepreneurial behaviours among individuals are influenced by a set of complex multi-level factors that interact in much nuanced ways (Chell & Pittaway, 1998). These factors range from individual level psychological factors to social and institutional factors. In the present study, the factors that were examined for their effect were; psychological factors (career anchor,

entrepreneurial risk perception and perceived ability to run a business), social factors (subjective norms, social valuation of entrepreneurship and social capital) and institutional factor (university entrepreneurial climate).

#### **1.1.2.1 Psychological Factors Affecting Entrepreneurial Behaviours**

The psychological factors that affect entrepreneurial behaviours are broadly defined as intra-personal level cognitive factors that make individuals suitable or not suitable for entrepreneurial activities. In the current study, the psychological factors of interest were career anchor, entrepreneurial risk perception and perceived ability to run a business.

Career anchors are the elements of work that individuals cognitively evaluate as very important to their personal and career life (Schein & Van Maanen, 2016). Individuals therefore have certain factors associated with work and career that they are more likely to build into their work life sometimes because those factors align with who they really are (Coetzee & Schreuder, 2008). Therefore, individuals whose career anchors align with entrepreneurship are expected to be more entrepreneurial than others.

Using Schein's eight-factor model of career anchors, eight dimensions of career anchors were examined (Schein & Van Maanen, 2016). These were security and stability of employment, autonomy and independence in work, technical and functional competence, managerial competence, entrepreneurial creativity, sense of service or dedication to a cause, pure challenge and lastly, lifestyle integration. These eight sub-dimensions of career anchors were examined to identify how each of them affects both entrepreneurial intentions and entrepreneurial alertness.

Entrepreneurial risk perception is defined as the subjective judgments individuals make concerning the risks involved in setting up a new business (Kunshu & Botao, 2015). Individuals differ

cognitively in how they perceive risks in new activities. Risk perception is therefore very important in explaining why some individuals choose to set up a new venture and why others do not (Podoynitsyna, Van der Bij & Song, 2012). In the current study, entrepreneurial risk perception was conceptualized as the extent to which the students perceive risk in establishing their own business after school.

Perceived ability to run a business is defined as individuals' evaluations of their ability to successfully manage a business venture. Emanating from the theory of planned behaviour, perceived ability to run a business measures perceived behavioural control when it comes to managing a business (Kautonen et al., 2015). In the current study, perceived ability to run a business was therefore conceptualized as the students' evaluations of their ability to successfully manage a business should they create one.

#### **1.1.2.2 Social Factors Affecting Entrepreneurial Behaviours**

Social factors play very important role in encouraging entrepreneurship. The social contexts within which individuals find themselves contribute to their entrepreneurial behaviours by shaping their beliefs, values and norms about entrepreneurship (Castaño, Méndez & Galindo, 2015; Liñán, Moriano & Jaén, 2016). Different social factors are found to affect entrepreneurial behaviours. In the current study, the social factors examined are social norms, social valuation of entrepreneurship and social capital.

Subjective norm is broadly defined as the perception of social pressure to perform or engage in a particular behaviour (Ajzen, 2011). Emanating from the theory of planned behaviours, subjective norms are proposed to be positively associated with entrepreneurial behaviour (Ajzen, 2011;

Shaver, 2014). In the current study, subjective norm was conceptualized as the students' own evaluation of pressure coming from their social groups to set up their own business after school.

Social valuation of entrepreneurship is defined as society's acceptance and appreciation of entrepreneurship as a proud way of earning income. It also looks at the extent to which societies accept entrepreneurs and the kind of respect they hold for them. The argument is that in social settings where entrepreneurs are held in very high esteem, young people are more likely to choose entrepreneurship as career path (Castano et al., 2015). In the current study therefore, social valuation was conceptualized as the extent to which the students think that setting up their own business after school is valued by their society.

Social capital is broadly defined as the network of relationships among people living and working together in a society that enables the society to function well. In the context of entrepreneurship, social capital is defined in human capital terms (Marvel, Davis & Sproul, 2016) to mean the network of relationships individuals develop that can be leveraged for entrepreneurial purposes (Williams, Huggins & Thompson, 2017). In the current study, social capital was conceptualized as the network of both online and offline relationships that the students think they can tap into if they decide to set up their own business after school.

### **1.1.3 Institutional Factor Affecting Entrepreneurial Behaviours**

Entrepreneurial behaviours are also significantly impacted by institutional factors. In the context of students, the entrepreneurial cultures that exist in their universities have been reported to influence their choice of entrepreneurship as a career path. A line of research has therefore emerged within the entrepreneurship literature trying to understand how universities influence entrepreneurship among their students.

Conceptualized mainly as university entrepreneurial ecosystem (Hallam, de la Vina, Leffel & Agrawal, 2014), the value that universities place on entrepreneurship significantly impact entrepreneurship behaviours among their graduating students (Hayter, 2016). The entrepreneurial ecosystem of a university is reflected in the culture of entrepreneurship that exist in the university, which include activities such as teaching of entrepreneurship, provision of entrepreneurial mentorship, organizing business competition etc Ekpoh, & Edet, (2011). In the current study, the institutional factor was conceptualized as university entrepreneurial culture, to measure the students' evaluation of the importance their universities attach to entrepreneurship.

## **1.2 Statement of the Problem**

Ghana's high levels of unemployment constitute a serious developmental challenge, in a country that seeks to promote tertiary education to accelerate development. If the trend is left unchecked, public confidence in university education will dissipate which will be counterproductive to the county's goal of raising future generation of university graduates to assume key leadership roles. This notwithstanding, it is well acknowledging fact that the rate of annual university graduate far outstrip the annual job openings in both private and public-sector employment (Baah-Boateng, 2013). The urgent need for policy interventions to inspire entrepreneurship among university students therefore cannot be overemphasized. The urgent need for policy interventions however, requires in-depth empirical research to understand the dynamics of the complex factors that shape entrepreneurial behaviours among university students.

While there have been empirical studies examining entrepreneurial behaviours among university students, there are still some gaps in the literature that require further empirical research. First of all, majority of the empirical studies (e.g. Lagevang et al., 2014; Owusu-Mintah 2014) examining

entrepreneurial behaviours in university students have focused on their entrepreneurial intentions and motivations. Because of this, there is limited understanding in entrepreneurial actions in the pursuit of entrepreneurship as a career choice.

Secondly, self-employment among any social group is found to be influenced by the interplay multi-level factors including economic, socio-cultural, psychological and institutional factors. However, in Ghana, the psychological, socio-cultural and institutional factors that shape entrepreneurship behaviours among university students are under researched and theorized. There is therefore the need for further empirical researcher from a perspective that can allow for examining individual, social and institutional factors to explain entrepreneurship behaviours.

Social psychology, with its role as a bridge science (Moscovici, 2001) thus, provides that opportunity for exploring the psychological, social and institutional factors that shape entrepreneurship behaviours among undergraduate students in Ghana. Social psychological perspective thus provides a broader multi-level framework to look at the issue of entrepreneurship holistically.

### **1.3 Aims and Objectives of the Study**

The main aim of the study is to empirically examine psychological, social and institutional factors that shape entrepreneurial behaviours among undergraduate students in Ghana.

Specific objectives were:

1. To compare group differences in both entrepreneurial alertness and entrepreneurial intentions among final year undergraduates.

2. Examine how psychological factors (e.g., career anchors, entrepreneurial risk perception and perceived ability to run a business) influence entrepreneurial intentions and entrepreneurial alertness among final year undergraduate students in Ghana.
3. Examine how social factors (subjective norms, social valuation and social capital) affect both entrepreneurial intentions and entrepreneurial alertness.
4. Assess the effect of university entrepreneurial climate on both entrepreneurial intentions and entrepreneurial alertness among final year undergraduate students.
5. To examine differences in both entrepreneurial intentions and entrepreneurial alertness based on gender and program of study (business programs and non-business programs)

#### **1.4 Relevance of the study**

The present study makes important contributions to policy, practice and theory. Findings from the study are expected to help policy makers to put into consideration measures that get the youth or graduates into self-employment to improve their well-being and economic growth in Ghana. These findings will positively affect national policies and interventions to promote development and nation building.

The study also contributes to the body of knowledge by serving as basis for future research and theorizing on entrepreneurial behavior in Ghana. Thus, the findings are going to serve as a resource for future research.

An understanding of the factors impacting on entrepreneurial behavior is vital in increasing the number of potential entrepreneurs to exploit new business opportunities. The findings help in creating the awareness in undergraduate students to be able to spot new business opportunities and make good use of them.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

The literature review looks at situating the present study within relevant literature concerning psychological, socio-cultural and institutional factors that affect entrepreneurial behaviours. Two theories that served as the framework for the current study are first considered. The chapter then proceeds with a review of related studies which takes a critical look at the relevant studies in the light of the study objectives. A rationale that seeks to justify the current study is discussed and then key variables of the study are highlighted. Hypotheses formulated and tested follow and then a hypothesized model constructed. Then various key terms are also operationally defined as applicable to this study.

#### 2.2 Theoretical Framework

The Occupational Choice Model (OCM) and Entrepreneurial Motivations Theory (EMT) served as the theoretical framework upon which the current study was built.

##### 2.2.1 Occupational Choice Model

The Occupational Choice Model by Parker, (2004) was used as a framework because it suits the consideration of career choices of university students. The basic assumption of the Occupational Choice Model (OCM) is that, individual students have their basic career choices, either to be self-employed or wage employed. Each of these career choices is influenced by several factors which

range from psychological and socio-cultural factors and also impacted by their institutions or universities they attend.

Using the occupational choice model, entrepreneurial behaviour is conceptualized in the present study as an alternative career choice. The present study therefore rests on the assumption that the decision to be self-employed among university students is not taken in isolation but within the context of the students' broader career plans and objectives.

This means that, the present study conceptualizes entrepreneurial behaviour not as a disposition but as a choice that is influenced by several factors. Based on these assumptions, it is assumed that the final year students consider several factors which they have control over (mainly psychological factors such as career anchors) and those factors that they have little control over (such as social valuation of entrepreneurship and university entrepreneurial climate).

The present study therefore rests on the theoretical assumption that entrepreneurial intentions and alertness among final year university students are shaped within the broader context of career planning, which is impinged by psychological, social and institutional factors.

### **2.2.2 Entrepreneurial Motivation Theory**

The second theory employed in this theory is the Entrepreneurial Motivation Theory (EMT) by Shane et al., (2003). This theory has the assumption that people's decisions to become entrepreneurs occurs as a result of their motivation toward self-employment. In addition, entrepreneurial motivation is found to be shaped by certain environmental factors such as social valuation of entrepreneurship, fear of failure and ability to run a business. Entrepreneurial Motivation Theory in application to this study help to understand social valuation of

entrepreneurship, ability to run business and ability to run a business serve as a motivation to self-employment choice in the Ghanaian context.

Using the entrepreneurial motivation theory, the present study also assumes that final year university students need to be motivated to start their own businesses after school. Entrepreneurial behaviour also conceptualized in the current study as a motivation. This means that university students must be motivated (based on the EMT) to choose entrepreneurship as a career path (based on OCM) before they will go into it after school. These two elements (motivation and choice) are hypothesized to be influenced by complex psychological, social and institutional factors.

## **2.3 Review of Related Studies**

The reviews of empirical studies are organized on three themes based on the objectives of the study: (i) psychological factors and entrepreneurial behaviours, (ii) social factors and entrepreneurial behaviours and (iii) institutional factors and entrepreneurial behaviours.

### **2.3.1 Psychological Factors and Entrepreneurial Behaviours**

There have been limited empirical studies into how various psychological or cognitive factors affect entrepreneurial behaviours among individuals. One important psychological factor that affects entrepreneurial behaviours among university students is their career choices (Schein & Van Maanen, 2016). The career anchors of university students are therefore very important in their preferences for self-employment or working for others. In Ghana for instance, it has been reported that undergraduate students prefer employment in public or private institutions, usually outside their field of study rather than setting up their own businesses (Zakaria, Adam & Abujaja, 2014). Adam, (2014) did a study at University of Development Studies in the Northern Region and the

findings confirm that agricultural students prefer to be employed in areas outside their field (e.g. banks, international organizations etc). The findings make it clear that undergraduate student' preferences to be employed in either private or public sector after school are very high.

In another study by Hirschi and Fischer (2013) to examine work values as predictors of entrepreneurial career intentions, they report that German university students whose career anchors or work values revolve around self-enhancement and openness to change values were more likely to start their own business. They reported further that students who valued conservation values were less likely to be entrepreneurial. Gender was found to moderate the effects of self-enhancement and conservation values on entrepreneurial intentions.

Similar findings have also been reported in a recent study that examined factors that shape or help in forming entrepreneurial intentions among young people in Europe. Santos, Roomi and Liñá (2016) did a study to critically observe the influence certain psychological factors that predict entrepreneurial intentions and also assessed gender difference in forming entrepreneurial intentions. The researchers collected their data from Europe. They found that entrepreneurial intentions among the sample were significant influenced by their career values, such that value for career independence was found to increase entrepreneurial intentions. They further reported that there were no significant gender differences in how career values influenced entrepreneurial intentions as it was found that forming entrepreneurial intentions is similar for men and women. However, they reported that there is a social perception that serve to reinforce men entrepreneurial intentions as compared to women.

There has been a recent study by Gorgievski, Stephan, Laguna, & Moriano, (2017) which uses a sample size of eight hundred and twenty-three (823) students from four Europeans countries (Spain, German, Poland and Dutch) to assess the mechanisms through which people or individual

career values are related to their entrepreneurial career intentions. They used the theory of planned behaviour to examine some selected psychological factors (attitude towards entrepreneurship, career values, self-efficacy, self-enhancement and openness) inform entrepreneurial intentions.

Gorgievski et al., (2017) found that Openness and self-enhancement values relate positively to entrepreneurial career intentions such that each of them increase entrepreneurial intentions.

However, the relationships were partly mediated by attitudes toward entrepreneurship, self-efficacy, and, to a lesser extent, by social norms. They found further that career values and theory

of plan behaviour (TPB) constructs partially mediated cross-country differences in entrepreneurial intentions. Spanish students showed lower entrepreneurial intentions as compared to Dutch,

German, and Polish students, which could be traced back to lower self-enhancement values (power and achievement), less positive attitudes toward entrepreneurship, and differences in social norms.

Similar findings have also been reported in study by Utami (2017) who used theory of planned behaviour to explain entrepreneurial intentions. Utami (2017) assessed the influence of some

factors in the theory of planned behaviour (attitude, subjective norm and perceived behavioural control) the entrepreneurial intentions among students in the East Jara (Malaysia). Using the

population of 2012-2015 school year university students, it was reported that attitude, subjective norm, and perceived behavioural control, entrepreneurship and self-efficacy education affects

entrepreneurial intentions. Specifically, more positive attitudes towards entrepreneurship, perceived behaviour control and self-efficacy were found to significantly increase entrepreneurial

intentions among the students.

The foregoing discussion shows that entrepreneurial behaviours are influenced by different psychological or individual-level factors in very complex ways. Context has been found to be very

important in explaining how psychological factors shape entrepreneurship. This is evidenced by the findings from recent the cross-cultural study by Gorgievski et al., (2017).

However, the situation in African context has not been adequately examined. Only few studies (e.g. Willebrands, Lammers & Hartog, 2012) have examined the complexities of how psychological factors shape individuals who have started their own small businesses. Specifically, Willerbrand et al., (2012) examined the effect of risk attitudes affect business performance of the small enterprises among theyoung entrepreneurs in Lagos, Nigeria. They measured performance by business revenue as profit is not a reliable measure in this context

They found that there is no significant support for a positive effect of willingness to take risk through compensation for risk taking. They showed that perception of risk does have a positive effect, suggesting that recognizing and cautiously dealing with risk is beneficial. The effect is robust under alternative specifications. They therefore argued that the more conventional measure of willingness to take risk has no robust effect on performance. This finding is contrary to what most studies have reported in high income countries.

Putting these findings together, the studies reviewed show that context is very critical in determining how certain psychological factors affect both entrepreneurial behaviors and entrepreneurial success. Context shape what individuals consider as personally important and thus affect their behaviours including those relating to starting their own businesses.

Sriram and Mersh. (2010) researched to identify the significant factors that empower Africans to start a new business and also be alert to new business adventures. The study after collecting survey data showed that a lot of entrepreneurs in the African continent have in mind of their energy, determination and the requisite passion needed to start new businesses and then manage them.

Although, there is a problem of scarcity of resources (e.g. Lack of workers with skills, amount as capital to start with, the right environment or facilities, etc) and other recommended engines to start the business with. It was then argued by Sriram and Merish. (2010) that there should be a major role played by governments of Africa to groom and strengthened entrepreneurial endeavors by critically paying attention to the above information in order to start-up and manage new businesses.

The psychological factors highlight the role of the individual's personality in the intention to start a new business critically analyzed and summarized the contribution of the psychological perspective to the development of entrepreneurship concept. However, psychological approach to entrepreneurial behaviours has been criticized severely (Lin & Yang, 2017). The criticisms differentiate between cognitively-inclined entrepreneurial psychology, social psychology and the social construction approach to entrepreneurial behaviour.

### **2.3.2 Social Factors and Entrepreneurial Behaviours**

Social factors have long been recognized as very key in entrepreneurship behaviours. This is mainly based on the argument that entrepreneurship is more social than personal because successful entrepreneurship rest on leveraging and maximizing ones, social space (Malebanna, 2014). This means that social spaces present both opportunities and barriers that affect the success of entrepreneurial activities.

Social factors have long been considered very important for management and entrepreneurship outcomes. There is been a body of research that addresses three (3) broad perspectives pertaining to social capital; communitarian, networks and institutions. The communitarian looks at social cohesion between groups and their moral behaviours. The network refers to different social ties

available to people or individuals and associated norms that promote access to resource. The institution view is seen as the outcome of the institutions, democracy and rule of law Lee (2017). The trend of the literature on social capital according to Lin and Yang (2017) has a positive impact of migration on trade looking at it from sociological point of view.

The fundamental argument has been that entrepreneurship constitutes a vocational choice (Cheraghi, 2017). Therefore, choosing or the decision of being in entrepreneurship is said to be shaped by societal factors such as institutions, regulated systems with pushes and pulls (Cheraghi, 2017). How necessary it is to make a living may push the entrepreneur or having opportunity may pull the entrepreneur's decision to start-up a business. Each of these two situations is highly influenced by the institutions in the society, for example the societies' economy and culture (Lin & Yang, 2017). The main argument stated here is to find out the reasons why entrepreneurship or specifically young entrepreneurs' experiences they go through "opportunity-pull and necessity-push" are highly shaped by the above societal factors.

Several studies (e.g. Malebanna, 2014; Yeng, Selvarajah & Meyer, 2011) in this area show that the decision to be self-employed is a complex one that takes place within a socio-cultural context. For example, supportive social values towards self-employment have been reported to enhance individual tendencies to start their own businesses.

For instance, Malebanna (2014) reported that entrepreneurial motivation is said to be influenced past experience and some societal factors "supportive social values, exposure to entrepreneurial role models, increasing awareness of entrepreneurial support and removing barriers that could prevent the creation of new ventures". The findings regarding the above assertion agrees with the fact that self-employment is a social activity. Predictors of entrepreneurial intentions (social valuation of entrepreneurship, knowledge of entrepreneurial role models, knowledge of

entrepreneurial support etc accounts for 25.7% of variance in entrepreneurial motivation (Malebanna, 2014).

Supportive social values towards self-employment have also been reported to enhance individuals' tendencies to start their own businesses. For instance, a study by Williams, Huggins and Thompson (2017) on the role of social capital in entrepreneurship found that even in deprived urban neighborhoods, the breadth and variety of networks that individuals have are able to be used to promote the success of the business they start.

Family background has also been reported as a socio-cultural factor that significantly influences self-employment choice among young people (Yeng et al., 2011). Yeng, et al., (2011) did empirical study and found that characteristics such as family background (e.g., father's self-employment status) occupational status and economic conditions are significant determinants of self-employment choice. Yeng et al., (2011) also found a statistical relationship between mother's occupation and self-employment among young people.

Cheraghi (2017) also conducted a study using a sample of young entrepreneurs in 93 countries that was surveyed in Global Entrepreneurship Monitor. The study showed that young entrepreneurs' socially-embedded experience of opportunity-pull rather than socially-embedded necessity-push is not distinctly and significantly affected by the dimension of traditional versus secular-rational culture, but is promoted by wealth in society as well as by a culture of self-expression versus survival.

In another related study, Engle, Schlaegel and Delanoe (2011) examined the effect of some social factors specifically role models, friends, family etc on the intention to be self-employed. The study also looked at how some variables like social norms with gender and culture impact on the

intention to be self-employed. Methodologically, a high sample size of university students from fourteen (14) countries were used. These social factors were found to influence self-employment, with gender significantly influencing a particular entrepreneurial intent of women. The studies reviewed has shown that social context is critical to entrepreneurial behaviours. Social factors within a particular context could either serve as a barrier or could provide resources that young people can tap into to start their own businesses. This explain the differences in the number of young entrepreneurs in different socio-cultural contexts.

### **2.3.3 Institutional Factors and Entrepreneurial Behaviours**

Research concerning institutional influences on entrepreneurial behaviours basically looks at how universities position themselves to encourage entrepreneurship among their students. This is very important because several studies (e.g. Peprah et al., 2015; Asamani & Mensah., 2013) have shown that the way universities structure their courses and the kind of entrepreneurship atmosphere that prevails in universities significantly affects employment choices of students. This is because, universities with positive entrepreneurial climate are regarded as natural incubators for breeding young entrepreneurs.

The institutional theory attempts to close the gap in the entrepreneurship research by considering the external factors that were ignored by the psychological stream of research. Researchers pointed out the impact of formal factors (government policies, physical infrastructure and intellectual property rights) and informal factors (cultural and social norms, entrepreneur social image, support to start-ups, and access to social network) on entrepreneurial start-ups activities (Kebaili, Kebaili, Al-Subyae, Al-Subyae, Al-Qahtani, & Al-Qahtani, 2017).

The institutional factors in entrepreneurship reflect the broader structural support that exist in a country, reflected through its university systems to stimulate student entrepreneurship. However, entrepreneurship climate in many African countries have been reported to be static because countries and universities in Africa have not put structured institutions to support student businesses (Sherrif & Moffato, 2015).

In a study of entrepreneurial ecosystems in Africa, Sherrif and Moffato (2015), examined the present state of the entrepreneurship ecosystems in four countries (Botswana, Egypt, Ghana and Uganda) in Africa. The study met several challenges due to the fact that extant literature on the concept is limited. They nevertheless reviewed relevant national and international documents to evaluate the present state of entrepreneurship ecosystems in these countries it has been reviewed to provide a picture of entrepreneurship ecosystems. The findings showed that each of the countries though they depict a static situation, justify the proposition that entrepreneurs are omnipresent, it is only the entrepreneurship environment that accounts for the differences in entrepreneurial economic growth and the cross-countries comparisons shows the dissimilarities in national entrepreneurship environments.

They therefore suggested the development of entrepreneurship ecosystems initiatives alongside the crucial roles that governments and other stakeholders should play which implies that a National Entrepreneurship Mission might be necessary. Universities in African countries were argued to take charge of leading to create favourable entrepreneurial climate.

The way and manner universities approach entrepreneurship on their campus therefore affect career choices of their students. For example, it is reported that university students are more interested in gaining employment in other organizations than setting up their own businesses. This has mainly been linked to the courses that are taught or programs that the students study. Yeng, et

al (2014) have reported that the students career choices are influenced by two entrepreneurship education variables, i.e. the university's role to promote entrepreneurship and the entrepreneurial curriculum and content along with gender, working experience and mother's occupation are statistically significant.

Similar findings have been reported in Ghana. Peprah et al, (2015) have reported that program of study influences self-employment intentions among students. The results indicated that students reading business-related programs are more likely to start their own business compared to those studying science, Arts and Humanities courses (Peprah et al, (2015). This outcome suggests that the curricula of business related program are structured to be entrepreneurship-oriented-courses which equip students to start their own business.

Other studies have also examined how universities position themselves for competitiveness when it comes to build strong entrepreneurial alumni. For instance, in a study conducted by Kirby et al., (2011) about making universities more entrepreneurial, using the Autonomous University of Barcelona (Spain) as a case study, they reported that there were several factors that acted as both facilitators and barriers of entrepreneurial climate in the university. The facilitating factors were found to be positively associated with the indicators of entrepreneurial university. However, the relationship between the barriers and indicators of entrepreneurial university (which was expected to be significantly negative) was found not to exist. This means that having facilitating factors for promoting entrepreneurship is very important for universities.

In a follow up study, Guerrero, Urbano, Cunningham and Organ (2013) compared universities in two European regions to examine the entrepreneurial cultures that exist among the universities. Using in-depth qualitative interviews, the researchers compared entrepreneurial cultures between two Spanish Universities and two Irish Universities between 2006 and 2010. They observed that

despite sharing similar economic conditions, historical backgrounds, cultural and social structures, entrepreneurial cultures in the four universities were quite distinct. Some of the universities were found to be more entrepreneurially inclined than others. This was exhibited through their institutional arrangement, traditions, facilities and characteristics in individual universities.

Denanyoh, Adjei and Nyemekye, (2015) did a study in Ghana to examine factors that impact on the entrepreneurial intentions of polytechnic students. In this research, model was proposed and empirically tested using a sample size of two hundred and twenty-eight (228) polytechnic students in Ghana. The model takes entrepreneurial intentions as a function of educational, community and family supports. Results showed that, all the support functions impacts on students' entrepreneurial intentions. It implies that formulation, delivery and evaluation of educational policies is very key in Ghana. Therefore, changes can be made to foster students interest in entrepreneurship.

Asamani and Mensah (2013) also did a study to find out how entrepreneurially inclined Ghanaian students are. They explored the influence academic programmes and certain personal characteristics of the students' entrepreneurial inclination. Five hundred and twenty (520) level 400 students were randomly sampled from university of Cape Coast for the study. Generally, Ghanaian students were found to be highly entrepreneurially inclined. However, their demographical characteristics (age, gender and academic programmes) were found to have no significant effects on their entrepreneurial inclination.

The studies reviewed provide support to the importance of institutional climate on entrepreneurship behaviours. Similar trend in findings have also been reported by other studies (e.g. Kebaili, Kebaili, Al-Subyae, Al-Subyae, Al-Qahtani, & Al-Qahtani, 2017). For example, Kebaili et al., (2017) examine the effects of institutional factors on the entrepreneurial intention among Qatari male students. The idea was to assess how institutions impinge on entrepreneurial

behaviours in high income countries. Qatar has the world highest incomes per capita and the government has recently also launched many initiatives to stimulate Qataris to engage in entrepreneurship activities. The target population of this research were Qatari male students in the final year of Bachelor degree in Management. A sample size of 155 students selected by convenience was used for the study. The findings indicate that Qatari male students hold a high entrepreneurial intention. In addition, two institutional barriers and three psychological barriers were found to be associated with the entrepreneurial intention. The findings offer some suggestions for educational institutions and vocational training centres.

Ekpoh, and Edet (2011) did a study to investigate the impact of entrepreneurship education on career intentions among 500 students drawn from two universities in Akwa Ibom and Cross River States of Nigeria. They used a survey design for the study and collected data using a structured questionnaire titled Entrepreneurship Education and Career Intentions Questionnaire (EECIQ). After the analysis, findings highlight that exposure to entrepreneurship education influences career intentions of tertiary school students.

A study was conducted to assess South African graduates' entrepreneurial intentions as well as their motivators and obstacles to entrepreneurial intentions. A sample of 701 final year students participated in the study and data was collected through self-administered questionnaires. It was found that the entrepreneurial intention of South African students is very weak. The researcher further identified five motivators and six obstacles of entrepreneurial intentions. The motivators included (employment, autonomy, creativity, economic and capital) and the obstacles to entrepreneurial intention of South African graduates are; (capital, skill, support, risk, economy and crime) Fatoki, (2010).

Similarly, Samuel, Ernest, & Awuah, (2013) conducted a study to examine Sunyani Polytechnic student's entrepreneurial intentions and to determine their motivations and obstacles on self-employment. The researchers reported that the student's entrepreneurial intentions were very high. They further reported that the students had important motivators as well as obstacles to start their own business. They finally found that the student's demographic characteristics affected their responses.

These findings show that institutional factors shape entrepreneurial behaviours more profoundly. Within the context of student entrepreneurship, the institutional factors are conceptualized as university structures and systems and how they are designed to stimulate entrepreneurship among students. Thus, entrepreneurial climate in universities are very important when it comes to encouraging entrepreneurship behaviours among their students.

#### **2.4 Rationale for the Study**

The rationale of the study is based on the need to fill the gaps in psychological research on entrepreneurship. Entrepreneurship behaviour research has mainly been done from the cognitive-based perspectives; treating entrepreneurial behaviours as a disposition (see Thornton, Ribeiro-Soriano & Urbano, 2011). Such studies basically conceptualized entrepreneurial behaviours as innate ability which means that entrepreneurs are basically born but not made.

While that line of research may have its own internal logic and validity, it also has internal weaknesses. For example, conceptualizing entrepreneurial behaviour as a disposition fails to provide deeper understanding into how institutional and social variables impact on entrepreneurship. Chell and Pittaway (1998) argued that entrepreneurship is more social than

cognitive. Advancing argument for the social construction perspective of entrepreneurship, they showed that entrepreneurial behaviours in negotiated and contested not only within psychological space but also with social, cultural and institutional spaces.

However, empirical research on how entrepreneurial behaviour is influenced by multi-level factors is broadly scarce. Resting on social construction approach therefore, the present study contributes to understand how intra-personal (psychological) factors, inter-personal (social) factors and institutional factors impinge on entrepreneurial behaviours among final year university students.

## **2.5 Statement of Hypotheses**

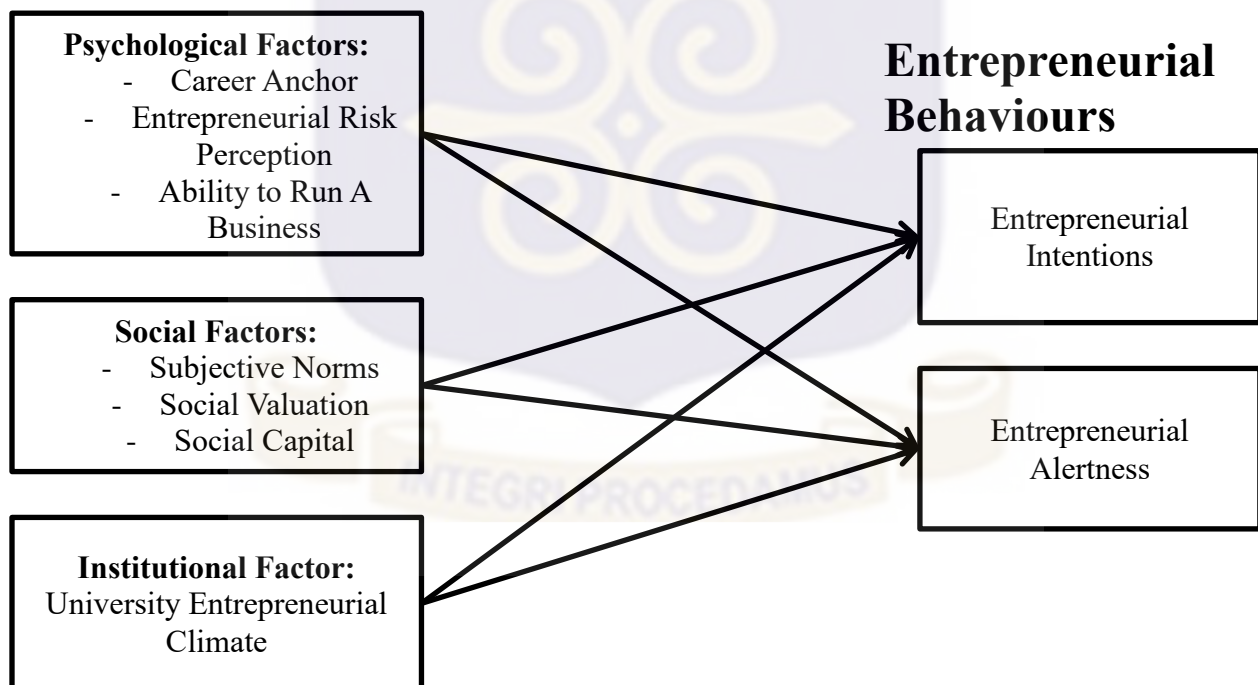
Following the extensive literature reviews, and based on the study objectives, the following hypotheses were formulated and tested.

1. There will be group differences in both entrepreneurial alertness and entrepreneurial intentions
2. Career Anchor will predict both entrepreneurial intentions and entrepreneurial alertness
3. Entrepreneurial risk perception will negatively predict entrepreneurial intentions and entrepreneurial alertness
4. Perceived ability to run a business will positively predict entrepreneurial intentions and entrepreneurial alertness
5. Subjective norms positively predict entrepreneurial intentions and entrepreneurial alertness
6. Social valuation of entrepreneurship will positively predicts entrepreneurial intentions and alertness

7. Social capital will positively predict entrepreneurial intentions and alertness
8. University entrepreneurial climate will positively predict entrepreneurial intentions and alertness

## 2.6 Hypothesized Model

In the proposed hypothesized model, entrepreneurial behaviour is conceptualized with two indicators; entrepreneurial intentions and entrepreneurial alertness. These two factors are proposed to be differentially affected by psychological factors (i.e. career anchor, entrepreneurial risk perception and perceived ability to run a business), social factors (i.e. social valuation of entrepreneurship, subjective norms and social capital) and institutional factor (i.e. university entrepreneurial climate).



**Figure 1: Hypothesized Model of Predictors of Entrepreneurial Behaviours**

## 2.7 Operational Definition

For the purpose of this study, the following terms were operationalized as;

1. Psychological factors: career anchor, perceived ability to run a business and entrepreneurial risk perception.
2. Social factors: subjective norms and social valuation of entrepreneurship and social capital.
3. Institutional factor: students' subjective evaluation of the entrepreneurial climate in their universities



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the detailed methodological processes that were followed in data collection to test the hypotheses of the study. The chapter consists of a detailed description of the design of the study, the population of the study, sample, sampling techniques inclusion and exclusion criteria.

The chapter also presents the detailed procedures that was followed in the course of the data collection, measures and instruments that were used and how scoring was done. The chapter further provides procedures and activities in data collection and preparation of the data for analysis. Ethical considerations that were employed in the study are also detailed in this chapter.

#### **3.2 Research Design**

The study used the quantitative method design in collecting the data. The quantitative method was used because of its ability to quantify data from larger group of people and also gives researcher the power to generalize the findings of the study (Babbie, 2004). It also allows researchers to measure two or more variables and test a number of hypotheses and also the relationship that exist between different variables using statistical techniques (Newman, 2004).

Specifically, cross-sectional survey was used to collect self-reported data from the participants. The survey design was chosen because of its appropriateness in studying career planning and entrepreneurial behaviour among students. The use of the survey method provides an advantage of capturing large sample of undergraduate students for the study which helps to generalize the

findings. Surveys are also appropriate for descriptive, explanatory and exploratory purposes and are mostly used in studies that have the individual as the unit of analysis and are also excellent in assessing attitudes and orientations in a large population (Babbie, 2004).

### **3.3 Research Setting**

The study was carried out in four universities in Ghana. These universities selected were University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), Methodist University College Ghana (MUCG), and Ghana Baptist University College (GBUC). Two of them are public universities (University of Ghana and Kwame Nkrumah University of Science and Technology) and two are private universities (Ghana Baptist University and Methodist University College, Ghana). The four universities were selected because of their strategic roles in higher in education in Ghana.

#### ***University of Ghana (UG)***

The University of Ghana is the oldest university in Ghana (established in 1948, as University College of Gold Coast). This university was commissioned on higher education in the then British colonies and currently regarded as the premier university in Ghana. The University College of the Gold Coast (university of Ghana) was founded by Ordinance on August 11, 1948 for the purpose of providing for and promoting university education, learning and research which the late Mr. David Mowbray Balm led as the first principal (UG handbook, 2016).

In the year 1960-1961 the authorities of the college (University of Ghana) requested the then government for the power to be upgraded and to operate as a full university so that their own degrees can be awarded. An international commission was employed for assessment. The

commission made a recommendation and then university of Ghana was set up with Dr. Kwame Nkrumah as a Chancellor.

Statistically, university of Ghana has operated as university for fifty-six (56) good years. As at September 2016, the university had a population of 38,831 (with a male/female ratio of about (1.3:1). The University of Ghana, Legon is historically seen to be the oldest and largest amongst the public Universities in system (Ghana) with courses in humanities, arts and sciences.

Looking at her period in existence, it is well known or popular to attract majority of Ghanaians from different ethnic groups to enrol on its programs. Therefore, chosen university of Ghana (UG) as one of the public universities for the study gives the researcher the power of generalization.

### ***Kwame Nkrumah University of Science and Technology (KNUST)***

Kwame Nkrumah University of Science and Technology is a public science-based university in Ghana with some courses in social sciences and arts. KNUST is also a great institution specifically located in Kumasi of the Ashanti Region. It was established on 6<sup>th</sup> October, 1951 and officially opened on 22<sup>nd</sup> day of January, 1952.

The Kwame Nkrumah University of Science and Technology (KNUST) is considered a world-class centre for building the capacity for West Africa's technological advancement. In the year 1960, the university's commission was invited by the government of the republic of Ghana to advise them on the future prospect of the university. Which led to the transformation of the institution from college to a full university and it has been in existence till date.

Therefore, Kwame Nkrumah Science and Technology (KNUST) is ultimate when it comes to selecting public universities for academic work like this present study.

### ***Ghana Baptist University College (GBUC)***

In 1961, the pastors' training school was separated from the secondary school and was moved to Abuakwa, where it became a full-fledged theological seminary. The name of the school went through several changes until it was finally decided that it should be called the Ghana Baptist Theological Seminary.

Since its establishment as a University College, four schools have been created; namely: the School of Theology and Ministry (i.e. the former Ghana Baptist Theological Seminary) and the School of Nursing at Abuakwa, the School of Business Administration, and the School of Art and Social Sciences Education at the Amakom Campus.

The data was collected at the Amakon campus because of it is the campus with variety of programs (, the School of Business Administration, and the School of Art and Social Sciences). And also, it is located in the middle of Kumasi (Ashanti Region) which makes it easy accessibility by students from different areas to further their education.

### ***Methodist University College Ghana (MUCG)***

The above-mentioned institution was established in the year 2000. MUCG can be found in Dansoman in the Greater Accra Region of Ghana. The university has two other campuses at Tema and Wenchi in the Brong Ahafo Region of Ghana.

Methodist University College Ghana (MUCG) was granted accreditation by the National Accreditation Board in August 2000 which was also approved in october 2002 to be affiliated to university of ghana, Legon. Giving a critical look, Methodist University College Ghana (MUCG)

and Ghana Baptist University College (GBUC) are private universities that run mainly business courses, with some social science courses (in MUCG).

The background of the selected universities (University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), Methodist University College Ghana (MUCG), and Ghana Baptist University College (GBUC)) shows that they have been and continue to be in existence and for that matter calls for a lot of people from different areas and ethnic groups to enrol on their programs.

The researcher's intention of considering the universities in Greater Accra and Ashanti Region (Kumasi) is as a result of how they are strategically located. Also, Ghanaians majority of the population are found in these two cities because of economic reasons which then get many people to school Accra and Kumasi. Automatically, people with different ethnic groups, religious backgrounds etc enrol on these universities in the two cities. This gives the researcher the confidence to generalize the findings of the study.

### **3.4 Population of the Study**

The population consisted of all final year students (level 400) from the four selected universities in Ghana. The inclusion criteria were all level 400 regular students of four universities listed above. This means that students in level 100, 200 and 300 as well as those on sandwich or distance education were not eligible and so were not given the chance to participate in the study.

### **3.5 Sample Size and Sampling Technique**

In selecting the targeted sample size, the non-probability sampling technique was used. Specifically, the convenience sampling technique was used to select hundred (100) participants

from each of the four selected universities. Participants were selected based on their availability and voluntary participation. Thus, any available final year student during the time of data collection was selected to take part in the study. The convenience sampling technique was used to select the participants from the level 400 students of the four universities.

A total of four hundred (400) questionnaires were distributed to final year students in the four selected universities. However, after about three weeks of field work, three hundred and ninety (390) questionnaires were retrieved, making the retrieval rate 97.5%.

However, during the data processing after the data has been entered, some of the respondents were deleted from the data for various reasons which included substantial missing data from same individual, choosing single responses all throughout, not filling demographic information etc. After that, three hundred and thirty-four (344) respondents were retained for the final analysis. Therefore, the sample size for the current study was 344 final year students from the four selected universities making the retrieval rate 86%.

This sample size is determined to be an adequate sample because of the statistical technique that was used for the analysis. Hierarchical multiple regression was used as the test for the analysis and according to Tabachnick and Fidell (1996), the sample size for regression is determined by the formula;  $N > 50 + 8m$ , ( $m$  = number of predictors).

The socio-demographic characteristics of the participants are provided on Table 3.1

As shown on Table 3.1, the males (62.5%) were slightly more than the females (37.5). The minimum age of the participants was 20 years and the maximum age was 32 years. Majority (74.1%) of the participants were between the ages of 21 and 25 years.

Respondents from the two public universities were more (53.7%) than those from the two private universities (46.2%). Those who were reading business-related courses were approximately 40% and those not reading business-related courses were approximately 60%.

**Table 3.1**

**Demographic Characteristics of Participants**

Variable	Categorical	<i>f</i>	%
Valid	Male	215	62.5
	Female	129	37.5
Ages	18 - 20years	9	2.6
	21-25years	255	74.1
	26-30years	59	17.2
	30+Years	21	6.1
Institution	University of Ghana	93	27.0
	Kwame Nkrumah University of Science and Technology	92	26.7
	Ghana Baptist University College	86	25
	Methodist University College Ghana	73	21.2
Course of Study	Business Related	138	40.1
	Non-Business	206	59.9

**3.6 Measures for Data Collection**

The data for the study was gathered using standardized questionnaires. The questionnaires used for data collection were categorized into sections measuring demographic characteristics of

students, career anchor, entrepreneurial risk perception, university entrepreneurial climate, entrepreneurial intentions, entrepreneurial alertness, social capital, social valuation, social norm, and perceived ability to run a business.

### *Demographic Characteristics*

A questionnaire was designed to measure the demographic characteristics of respondents. The items asked respondents to answer questions regarding their sex, age, type of institution, course of study, number of siblings, birth order, parent's/family employment background, and respondent's talents/passion/hobby.

The first section of the questionnaire consisted of twelve 12 items inquiring about demographic characteristics of respondents such as student's " gender, age, category of institution, name of institution, the course of study, number of siblings, birth order, family employment background, name of talent and if participant's talent can turn into business".

Entrepreneurial behaviour was measured using the Entrepreneurial Intentions scale and Entrepreneurial Alertness Scale. The Entrepreneurial Intentions Scale was developed by Liñán & Chen (2009) and has four 4 items. Thus, it was used in assessing the students' intentions they have in creating their own jobs. The scale is measured on 5-point Likert scale ranging from 1= strongly disagree to 5= strongly agree. Sample items in the scale include; "I am ready to do anything to be an entrepreneur" and "My professional goal is to be an entrepreneur" (Refer to the appendix for the full scale). The minimum possible score is 4 and the maximum possible score is 20. A higher score indicates higher entrepreneurial intentions and vice-versa. The scale has a Cronbach alpha of 0.81.

The Entrepreneurial Alertness Scale by Tang et al. (2012) is a 24 items scale and used in assessing students' alertness or readiness to be self-employed or starting their own business. The scale is measured on 5-point Likert scale ranging from 1= strongly disagree to 5= strongly agree. Sample items in the scale include statements such as "I always keep an eye out for new business ideas when looking for information" and "I read news, magazines, or trade publications regularly to acquire new business information". (Refer to the appendix for the full scale). A total score of 13 - 32 on the Entrepreneurial Intentions Scale indicated a low score whereas a total score of 33 - 65 indicated a high score. The scale has a Cronbach alpha of 0.81.

Social valuation of self-employment was measured using the Social Valuation of Entrepreneurship Scale by Liñán, (2008). The scale has 5 items which is measured on 5-point Likert Scale ranging from 1= strongly disagree to 5= strongly agree. Some of the statements on the scale are "My immediate family values being self-employed than being employed by other people" and "In my country, people who own their own businesses are respected than those who are employed by others" (Refer to the appendix for the full scale). A total score of 5 - 12 on Social Valuation of Entrepreneurship scale represent a low score whereas a total score of 13 - 25 indicated a high score. The scale has a Cronbach alpha of 0.78.

The subjective norm of entrepreneurship scale was propounded by Liñán and Santos (2007). The scale was developed to assess social norm of entrepreneurship. Thus, it was used to examine the extent to which participants think the people around them will react if they make decision to open their own business after their first degree. It is 5 items scale measured on 5-point Likert Scale ranging from 1= strongly disagree to 5= strongly agree with a Cronbach alpha of 0.85. The scale includes statements such as "My friends will approve of a decision to start my own business after school" and "My immediate family would approve of a decision to start my own business after

school” (Refer to the appendix for the full scale). The minimum possible score is 5 and the maximum possible score is 25.

Perceived ability to run a business is a 3-item scale developed by Tamkin, Hillage, and Willison (2002) to assess people perceived ability to run a business. In this case, participants were assessed to the extent to which they can manage a business of their own after school. The scale is measured on 5-point Likert Scale ranging from 1= strongly disagree to strongly agree. It has a Cronbach alpha of = .82. It includes statements like “To start a business and keep it working would be easy for me to do after school” and “I am prepared to do anything to ensure that any business I create after school succeeds” (Refer to the appendix for the full scale).The minimum possible score is 3 and the maximum possible score is 15.

Career anchor was measured by using the career anchor inventory by Schein, (1990). The scale examines element of work that is considered as personally important that people would want to build their career around. It therefore assessed elements of work that participants consider as personally important and would want to build their career around after school. Career anchors is a 64item Likert scale ranging 1= important to 10= very important for item 1 to 32 and 1= not true to 10= very true for item 33 to 64.In its scoring processes, it has eight levels with eight items each. Therefore, the score of each of the items is associated with the level assigned to them. The anchors assessed in the original scales are; security, stability, organizational, autonomy/independence, technical/functional competence, managerial competence, entrepreneurial creativity, sense of service/dedication to a cause, pure challenge and life-style integration. It has a Cronbach alpha of 0.86

Entrepreneurial risk perception by Barbosa, Kickul, and Liao-Troth, (2007) is a scale consist of 23 items in four risk domains: personal, social, financial, and overall. Responses were given along a

5-point Likert-type scale (1 = absolutely disagree; 4 = neither agree or disagree; 5 = Absolutely agree). A total score of 23 on the Entrepreneurial Intentions Scale indicated as a low score whereas a total score of 115 indicated a high score. The following are some examples of the items of the scale; “Launching a new business may have negative consequences for my future career” and “I see the possibility of starting a business as a potential loss” (Refer to the Appendix A for the full scale). The scale has a Cronbach alpha of 0.81.

Social capital scale which was developed by Fornoni, Arribas, and Vila, (2011) assesses the extent of relationship that individuals can tap into if they want to open their own business. Thus, the scale examines the extent of relationships participants or students have as resource that they can tap into if they want to create or open their own job. It is 20item scale measured on 5-point Likert Scale ranging from 1= strongly disagree to strongly agree and it has some of its items to be “There is someone online/offline I can turn to for advice about making very important decisions” and “There are several people online/offline I trust to help solve my problems” (Refer to the Appendix B for the full scale). The minimum possible score is 20 and the maximum possible score is 100. The scale has a Cronbach alpha of 0.82.

The university entrepreneurial climate scale Nwaogu, (2014) assesses participant’s awareness of the existence or otherwise of the extent to which participants/students think their university does support students who want to start their own business after school. It is 25item scale measured on 5-point Likert Scale ranging from 1= strongly disagree to strongly agree. The minimum possible score is 25 and the maximum possible score is 125. Some of its items are “There are key objectives for supporting entrepreneurship among students” and “The university may be a shareholder in a new company”. It has a Cronbach alpha of .806.

### **3.7 Procedure for Data Collection**

Data for the study were collected at the four selected universities from greater Accra and Ashanti region of Ghana. These are specifically, University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), Methodist University College, Ghana (MUCG) & Ghana Baptist University College (GBUC).

The data collection process began after submitting a letter of introduction from the Department of Psychology, University of Ghana to the four (4) selected universities to seek for permission. The letter of introduction specified the main purpose of the study and the information needed for the study to the management and students.

After the ethical approval is given, a pilot study was first conducted. The pilot study served the purpose of establishing the psychometric properties of the scales to be used for the work and also students understanding of the scale to elicit the right responses.

In conducting the pilot study, a sample size of twenty (20) was used. The sample consisted of 11 male students and 9 female students. The ages of the participants range between 23 and 27 years with a mean age of 24.76 years and standard deviation of 2.12 years. The following table presents the respective figures of reliability for the various scales and subscales.

**Table 3.2**

#### **Reliability Analyses from Pilot Data**

<b>Variable</b>	<b>Number of items</b>	<b>Cronbach alpha</b>
Entrepreneurial Intentions	4	.779
Entrepreneurial Alertness	24	.831
Entrepreneurial Risk Perception	23	.811
Social Valuation	5	.883
Subjective Norms	5	.839
Social Capital	4	.822
Ability to Run Business	3	.863
Career Anchor	64	.816
University Entrepreneurial Climate	25	.806

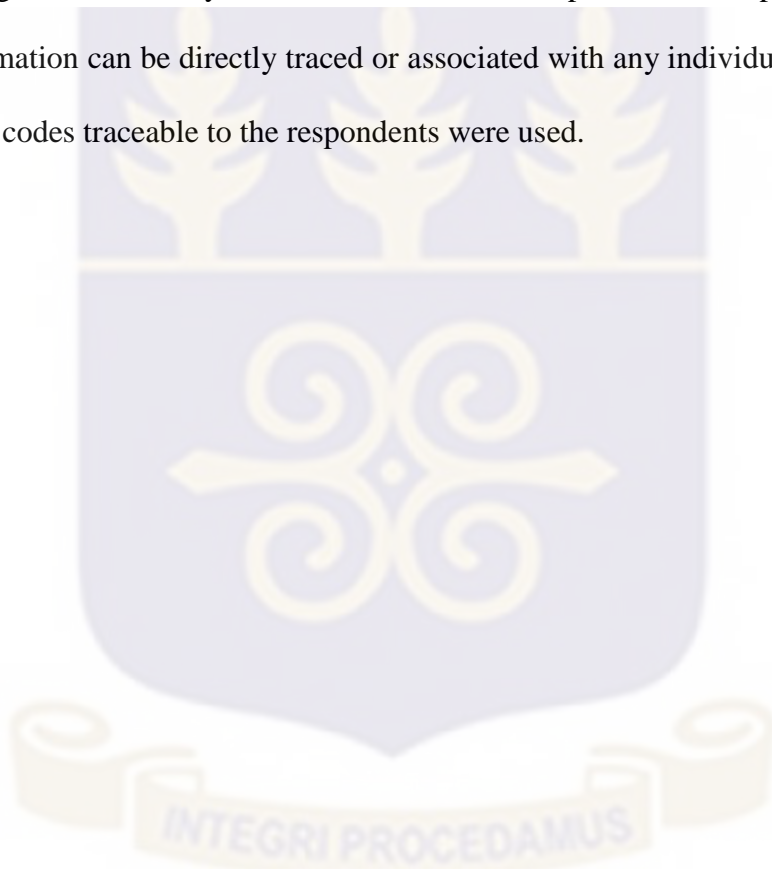
Table 3.2 shows that the reliability levels of the scales are all reliable. Through the pilot study, any challenge with the questionnaire was corrected before proceeding with the main study. After the pilot study, the main study was then conducted. A maximum of four weeks (1 month) was used for the collection of data from the participants. The questionnaires were given to participants to be completed within two weeks. After the first week, the researcher did a follow up check (phone calls) on participants to make sure everything was in order.

The questionnaires were then collected from participants two weeks after administration. The researcher retrieved 40% for the first collection, 20% for the second collection and then 9% & 6% for the third and fourth collection respectively. The researcher trained four research assistance which made the data collection happened concurrently in the four selected universities.

### **3.8 Ethical Consideration**

Relevant ethical considerations were strictly adhered to in accordance with the ethical principles governing the use of human participants for research purpose. Permission was first sought from the four (4) selected universities before data collection begun. Informed consent was also sought from participants before being included in the study.

The researcher ensured high sense of confidentiality and anonymity by making sure the set of data collected is managed in such a way that the identities of the respondents were protected at all times and that no information can be directly traced or associated with any individual participant. With this, no names or codes traceable to the respondents were used.



## CHAPTER FOUR

### RESULTS

#### 4.1 Introduction

The present study sought to examine the psychological, social and institutional factors that shape entrepreneurial behaviours among undergraduate students in Ghana. Four main objectives were assessed. The first objective was to compare group differences in both entrepreneurial alertness and entrepreneurial intentions among final year undergraduates.

The second objective was to investigate whether psychological factors (e.g., career anchors, entrepreneurial risk perception and perceived ability to run a business) affect entrepreneurial intentions and entrepreneurial alertness among final year undergraduate students. The third objective was to find out how social factors (subjective norms, social valuation and social capital) affect both entrepreneurial intentions and entrepreneurial alertness. The fourth objective assessed institutional entrepreneurial climate predict both entrepreneurial intentions and entrepreneurial alertness.

This chapter contains findings from the study. The results are presented as follows. Preliminary analyses of descriptive statistics, correlations and factor analyses are presented first. After that, test of hypotheses testing is presented next and then a summary of the results is also presented.

## **4.2 Preliminary Analyses**

The preliminary analyses were conducted as means of processing the data for inferential statistical analyses. First of all, factor analysis conducted on the Career anchor scale because its sub-scales were used in testing the hypotheses. Next, the reliability levels of the scales used are then provided. After that, descriptive statistics are then reported.

### **4.2.1 Factor Analysis**

Factor analyses were conducted on the Career Anchor Scale with sub-scales to assess underlying structure of the variables within the Ghanaian context. Principal Axial Factoring was used with varimax rotation. It was expected that all items that measure the same construct load onto the same factor (Tabachnick & Fidell, 2007). Factor loadings were set at .40 for all the scales. Assumption of sampling adequacy was tested using Kaiser-Meyer-Olkin (KMO) test and the number of factors to be extracted was determined using eigen values greater than 1 and scree plot (Pallant, 2010).

The results of factor analysis for career anchoring scale are summarized in Table 5. Sampling adequacy using KMO test was found to be significant ( $KMO = .844$ ,  $\chi^2 = 14504.667$ ,  $p < .001$ ). After inspecting eigen values of factors exceeding 1 and the scree plot, where it was observed to levelled out after the eighth factor (see Appendix I) eight factors were therefore extracted. However, the items that did not load were taken out.

The eight factors together accounted for a cumulative variance of 71.111%. The first factor, explained 25.688% variance, the second factor explained 7.883%, the third factor explained 6.238%, the fourth factor explained 4.757%, the fifth factor explained 4.301%, the sixth factor explained 3.645%, the seventh factor explained 3.009% and the eighth factor explained 2.762%. The eight factors and their loadings are shown on Table 4.1.

**Table 4.1:**

**Factor Loadings based on a Principal Axial Factoring with Varimax Rotation for Career Anchoring Scale (N = 344)**



Items	Component							
	1	2	3	4	5	6	7	8
The more freedom I have to do what I want the happier I am at work	<b>.622</b>							
I like working in a position that allows freedom and less restriction	<b>.500</b>							
I am more concerned with my own freedom and autonomy than with any other factor in my work life	<b>.680</b>							
The satisfaction of solving problems in my own business motivates me	<b>.513</b>							
I want own my own ideas, turn them into business and benefit from the money earned by creating something new	<b>.588</b>							
Having the challenge of creating something new is.....	<b>.620</b>							
Owning my own business is very important to me	<b>.504</b>							
Creating new business ideas and turning them into reality has been something I've wanted to do for a long time	<b>.555</b>							
The satisfaction of solving problems in my own business motivates me	<b>.647</b>							
I want own my own ideas, turn them into business and benefit from the money earned by creating something new	<b>.794</b>							
I would live or work almost anywhere if the job had some real challenges	<b>.674</b>							
Competition in the work place helps me to produce my best work	<b>.640</b>							
No pain, no gain!	<b>.699</b>							
Having challenges and tasks that stretch my abilities is ...	<b>.428</b>							

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Projects are interesting to me only when they are really challenging	<b>.767</b>
I would live or work almost anywhere if the job had some real challenges	<b>.631</b>
Supervising others and leading them to achieve a target is very important to me	<b>.477</b>
It gives me great satisfaction to be promoted into positions where I can exercise greater management authority	<b>.749</b>
Supervising, leading, and influencing others is.....	<b>.461</b>
Managing other people would give me a strong sense of achievement	<b>.723</b>
I like being part of a large organization where I can be sure that my job, work, and salary are relatively secure	<b>.613</b>
I would be more interested in remaining in my present location rather than moving even if it offered a promotion	<b>.504</b>
I like being part of a large organization where I can be sure that my job, work, and salary are relatively secure	<b>.468</b>
Happiness is a function of a balanced and integrated work and lifestyle	<b>.723</b>
Having sabbaticals or other leaves to pursue activities outside of work is.....	<b>.618</b>
I am more interested in an integrated lifestyle than in career promotion	<b>.741</b>
I need to belong to an organization to feel satisfied in my work life	<b>.694</b>

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I enjoy volunteering with dedication even when there is little or no compensation	<b>.709</b>
I think I have a contribution to make toward improving the world and helping people	<b>.476</b>
I care more about people, environment, peace, and other critical issues than I do about promotions and success	<b>.667</b>
Knowing that my work is contributing to the wellbeing of others is.....	<b>.544</b>
Being dedicated to a worthwhile cause is very important to me.	<b>.603</b>
I think I have a contribution to make toward improving the world and helping people	<b>.525</b>
Becoming more knowledgeable in my field is a great source of pride and satisfaction	<b>.593</b>
I feel best when I can solve technical problems in my area of expertise	<b>.606</b>
I feel best when others come to me for advice about how to get their jobs done	<b>.725</b>
I am very proud of my technical and functional competence for work	<b>.721</b>
I feel best when I can solve technical problems in my area of expertise	<b>.578</b>
I feel best when others come to me for advice about how to get their jobs done	<b>.517</b>

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The ability to use technical skills or knowledge to complete a clearly defined project is

**.603**

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*1 = Autonomy*

*2 = Entrepreneurial*

*3 = Challenge*

*4 = Management*

*5 = Security*

*6 = Life Style 7 = Dedication*

*8 = Technical*

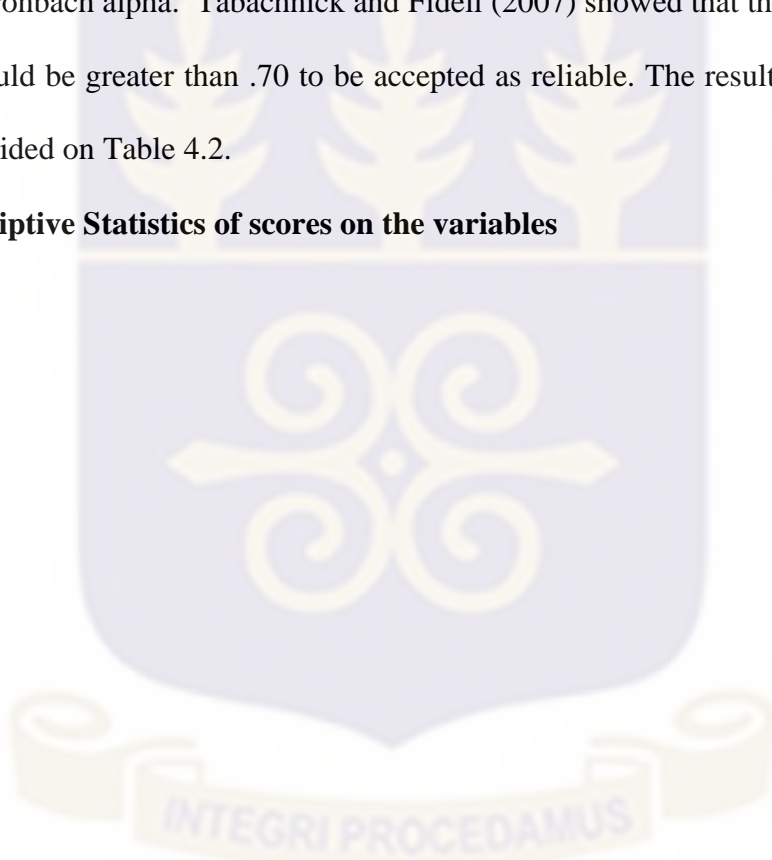


#### 4.2.2 Descriptive Statistics

Descriptive statistics were run to assess the distribution of scores on the variables in the study. The normality of the data was checked using skewness and kurtosis. Tabachnick and Fidell (2007) state that the normality of a variable is determined when the values of skewness range between +1.00 and -1.00 and the values of kurtosis range between +2.00 and -2.00.

The descriptive statistics also show the reliability levels of the variables in the study which was assessed using Cronbach alpha. Tabachnick and Fidell (2007) showed that the reliability level of the variables should be greater than .70 to be accepted as reliable. The results of the descriptive statistics are provided on Table 4.2.

**Table 4.2: Descriptive Statistics of scores on the variables**



<b>Variable</b>	<b>Min.</b>	<b>Max.</b>	<b>M</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b><math>\alpha</math></b>
Entrepreneurial Intentions	4.00	20.00	16.04	3.16	-1.055	.930	.804
Entrepreneurial Alertness	42.00	114.00	90.04	13.64	-.997	.645	.924
Entrepreneurial Risk Perception	27.00	92.00	63.87	12.13	.040	-.413	.847
University Entrepreneurial Climate	34.00	125.00	77.36	12.35	.845	1.214	.853
Social Valuation	9.00	24.00	16.78	3.13	-.430	-.005	.802
Social Norms	4.00	15.00	12.06	2.56	-1.008	.386	.848
Social Capital	32.00	91.00	69.48	9.71	-1.021	1.314	.836
Ability to Run Business	7.00	20.00	15.90	2.91	-.877	.206	.782
Overall Career Anchor	272.00	624.00	522.36	57.56	.786	1.207	.943
Security sub-scale	26.00	79.00	60.75	8.99	.270	1.403	.874
Autonomy sub-scale	32.00	80.00	62.99	10.42	.105	.467	.881
Technical sub-scale	35.00	80.00	66.57	8.14	.317	-1.255	.805
Management sub-scale	30.00	80.00	66.74	9.12	.158	1.603	.892
Entrepreneurial sub-scale	24.00	80.00	69.49	9.12	.983	1.354	.841
Dedication sub-scale	30.00	80.00	68.47	8.65	.843	-1.557	.784

Challenge sub-scale	32.00	79.00	65.44	8.51	.476	1.554	.805
Lifestyle sub-scale	18.00	79.00	61.90	9.99	.143	1.131	.837

Observing from Table 4.2, the values for skewness values of all the variables range between -.413 and 1.603 and the values of kurtosis range between -1.557 and 1.554. The values for skewness and kurtosis therefore within the acceptable limit which shows that the data is normally distributed.

With regards to reliability levels, the Cronbach alpha values range between  $\alpha = .782$  and  $\alpha = .943$ .

This means that all the scales are highly reliable.

#### 4.2.3 Correlation Matrix

The relationships among variables were assessed using Pearson-Product Moment correlation (Pearson  $r$ ). The results as detailed in Table 4.3 show that entrepreneurial alertness is positively related with social valuation of entrepreneurship ( $r = .418$ ,  $p < .01$ ), social norms about entrepreneurship ( $r = .559$ ,  $p < .01$ ), ability to run a business ( $r = .624$ ,  $p < .01$ ), social capital ( $r = .550$ ,  $p < .01$ ), university entrepreneurial climate ( $r = .247$ ,  $p < .01$ ) and all sub-scales of career anchors but negatively related to entrepreneurial risk perception ( $r = -.248$ ,  $p < .01$ ).

Entrepreneurial intention is also positively correlated with university entrepreneurial climate ( $r = .387$ ,  $p < .01$ ), social valuation of entrepreneurship ( $r = .234$ ,  $p < .01$ ), social norms about entrepreneurship ( $r = .456$ ,  $p < .01$ ), ability to run a business ( $r = .56$ ,  $p < .01$ ), social capital ( $r = .424$ ,  $p < .01$ ), university entrepreneurial climate ( $r = .247$ ,  $p < .01$ ) and all sub-scales of career anchors but negatively related to entrepreneurial risk perception ( $r = -.139$ ,  $p < .05$ ).

**Table 4.3: Correlation Matrix among the Variables ( $N = 344$ ,  $* = p < .05$ ,  $** = p < .01$  (2-tailed)).**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Entrepreneurial Alertness																
2. Entrepreneurial Intention	.689**															
3. University Entrepreneurial Climate	.278**	.387**														
4. Social Valuation	.418**	.234**	.105													
5. Social Norms	.559**	.456**	-.065	.283**												
6. Ability to Run Business	.624**	.560**	.031	.365**	.599**											
7. Entrepreneurial Risk Perception	-.248**	-.139*	.008	.023	-.305**	-.294**										
8. Social Capital	.550**	.424**	.132*	.169**	.316**	.523**	-.102									
9. Security Anchor	.230**	.148**	.000	.167**	.278**	.239**	-.160**	.085								
10. Autonomy Anchor	.466**	.479**	.066	.200**	.426**	.509**	-.299**	.329**	.431**							
11. Technical Anchor	.286**	.238**	.003	.129*	.340**	.322**	-.135*	.175**	.667**	.560**						
12. Management Anchor	.292**	.226**	-.007	.166**	.232**	.259**	-.112*	.202**	.624**	.391**	.742**					
13. Entrepreneurial Anchor	.421**	.438**	-.018	.122*	.286**	.427**	-.165**	.240**	.323**	.555**	.606**	.541**				
14. Dedication Anchor	.331**	.253**	.080	.118*	.329**	.384**	-.202**	.192**	.440**	.491**	.710**	.601**	.698**			
15. Challenge Anchor	.408**	.295**	.143**	.176**	.322**	.391**	-.257**	.137*	.546**	.511**	.645**	.437**	.607**	.760**		
16. Life Style Anchor	.296**	.206**	.013	.166**	.263**	.378**	-.129*	.257**	.623**	.533**	.669**	.602**	.527**	.577**	.638**	

### **4.3 Test of Hypotheses**

After all the preliminary analyses had been conducted, series of inferential statistics were conducted to test the hypotheses. This sub-section presents findings that are observed in the current study based on the hypotheses tested. The results are tested in two parts. First of all, findings on group comparison in entrepreneurial alertness and entrepreneurial intentions are presented. After that, the hierarchical multiple regressions of predictors of entrepreneurial alertness and entrepreneurial intentions are then presented.

#### **4.3.1 Group Differences in Entrepreneurial Behaviour**

Group differences in entrepreneurial behaviours (entrepreneurial alertness and intentions) among the students were first examined. This was to help know the demographic factors that accounts for differences in entrepreneurial behaviours among the respondents so that they can be controlled for when testing the hierarchical multiple regression model.

The groups included in the analyses are gender (male vs female), course of study (business course and non-business course) and university (private vs public). A 3-way MANOVA was used to test for the group differences.

According to Tabachnick and Fidell (2007), MANOVA is the best test for examining mean differences when there are categorical independent variables and more than one continuous dependent variable that are theoretically related. Instead of using ANOVA to analyse the variables one after the other and increasing type I error, MANOVA does all the different analysis at once and keeps type I error at its barest minimum. MANOVA tests for both main effects and interaction effects between all the independent variables. In the current study, there were 3 categorical independent variables and two continuous dependent variables. The results are summarized on Table 4.4 and 4.5

**Table 4.4****Multivariate Tests Table of Group Differences in Entrepreneurial Behaviours**

Effect	$\lambda$	F	df	p	$\eta^2$
Sex	.986	2.135	2.00	.120	.014
Course of Study	.960	6.242	2.00	.002	.040
University	.832	9.588	6.00	.000	.088
Sex * Course	.986	2.054	2.00	.130	.014
Sex * University	.940	.139	6.00	.915	.031
Course * University	.993	.552	4.00	.698	.004

Table 4.4 shows that there are significant differences in entrepreneurial behaviours depending on course of study ( $\lambda = .960$ ,  $F = 6.242$ ,  $p < .01$ ) and type of university ( $\lambda = .832$ ,  $F = 9.588$ ,  $p < .001$ ). No significant interaction effect was found among the variables. This means that entrepreneurial behaviours between students who study business-related course and those who study non-business-related courses were significantly different. Also, entrepreneurial behaviours are found to be different between students in private universities and those in public universities.

But what Table 4.4 does not show is the specific entrepreneurial behaviour where the differences are found. Table 4.5 shows the specific aspect of entrepreneurial behaviours where the group differences lie. However, in deciding significance, a Bonferroni adjustment was carried out by dividing the alpha level of .05 by the number of dependent variables. This helps to account for unobserved high power after the multivariate analysis (Tabachnick & Fidell, 2007).

In the current study, there were 2 aspects of entrepreneurial behaviours (entrepreneurial alertness and entrepreneurial intentions) and therefore 0.05 was divided by 2. So, for 2 DVs, the new

significance level is  $.05/2 = .025$ . Therefore, a significance to be reached, the alpha level on Table 4.5 should be less than  $.025$ .

**Table 4.5**

**Tests of Between-Subjects Effects of Group Differences in Entrepreneurial Behaviours**

Source	DV	Type III SS	df	MS	F	p	$\eta^2$
Course of Study	Entrepreneurial	70.210	1	70.210	12.417	.000	.040
	Intentions						
	Entrepreneurial	502.195	1	502.195	4.749	.030	.016
	Alertness						
University	Entrepreneurial	244.587	3	81.529	14.419	.000	.126
	Intentions						
	Entrepreneurial	4543.282	3	1514.427	14.320	.000	.125
	Alertness						

Table 4.5 shows that there are significant differences in both entrepreneurial intention ( $F = 12.417$ ,  $p < .001$ ,  $\eta^2 = .040$ ) and entrepreneurial alertness ( $F = 4.479$ ,  $p < .05$ ,  $\eta^2 = .016$ ) between students who study business-related courses and those who study non-business-related courses. Comparing their mean scores, students who study non-business-related courses had higher intentions ( $M = 16.17$ ,  $SD = 3.32$ ) than those who study business-related courses ( $M = 15.8$ ,  $SD = 2.90$ ). This means that students who study non-business-related courses have higher entrepreneurial intentions than those who study business-related courses. However, when it comes to entrepreneurial alertness, students who study business related courses had higher alertness ( $M = 90.86$ ,  $SD =$

12.40) than those who study non-business-related courses ( $M = 89.50$ ,  $SD = 14.41$ ). This means that students who study business-related courses have higher entrepreneurial alertness than those who study non-business-related courses.

Also, there are significant differences in both entrepreneurial intention ( $F = 14.419$ ,  $p < .001$ ,  $\eta^2 = .126$ ) and entrepreneurial alertness ( $F = 14.320$ ,  $p < .001$ ,  $\eta^2 = .125$ ) between students who study in private universities and those who study in public universities. Comparing their mean scores, students who study in public universities had higher intentions ( $M = 16.11$ ,  $SD = 2.31$ ) than those who study private universities ( $M = 15.39$ ,  $SD = 3.19$ ). Also, when it comes to entrepreneurial alertness, students who study in public universities had higher alertness ( $M = 89.8$ ,  $SD = 12.64$ ) than those who study private universities ( $M = 87.31$ ,  $SD = 12.49$ ). Putting the two together, the findings show that students in public universities have higher entrepreneurial alertness and intentions compared to those in private universities.

#### **4.3.2 Predictors of Entrepreneurial Behaviour**

All hypotheses were tested using a hierarchical multiple regression analyses. These were conducted to test the factors that predict entrepreneurial behaviours of the students after controlling for demographic characteristics. The demographic factors were controlled so that the unique effect of the predictors on entrepreneurial behaviours can be examined (Pallant, 2010; Tabachnick & Fidell, 2007).

As argued by Tabachnick and Fidell (2007), every test of hypotheses has some key assumptions that need to be met before such hypotheses are tested. In the case of multiple regression, the assumptions of multicollinearity that is tested to show that the variables being included in the model do not measure the same thing (Pallant, 2010). Because assumption of normality has already been tested (see Table 4.2), the assumption of multicollinearity was assessed using Tolerance and

variance inflation factor (VIF). The Tolerance values ranged between .244 to .909 and the VIF values ranged between 1.073 to 2.095 which indicates no multicollinearity (Pallant, 2010; Tabachnick & Fidell, 2007).

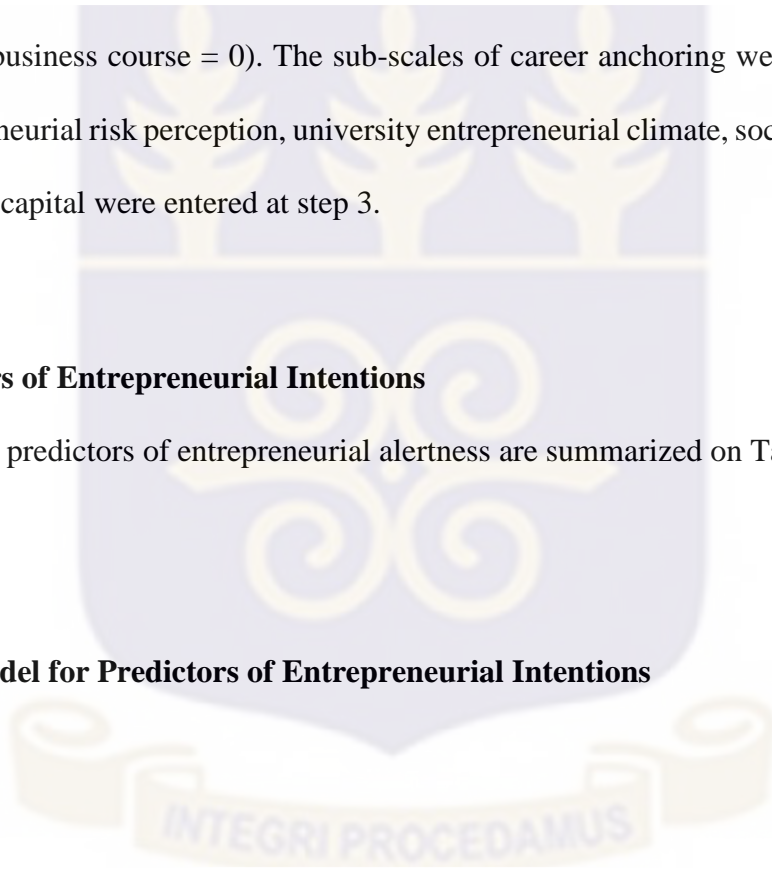
In testing for all the two the hierarchical multiple regression models, the control variables (age, university and course of study) were put into the model in step 1. University was dummy coded with public university as reference category (public university = 1, private university = 0) and course of study was also dummy coded with business course as a reference category (business course = 1, non-business course = 0). The sub-scales of career anchoring were entered in step 2 and then entrepreneurial risk perception, university entrepreneurial climate, social valuation, social norms and social capital were entered at step 3.

#### **4.3.2.1 Predictors of Entrepreneurial Intentions**

The results of the predictors of entrepreneurial alertness are summarized on Table 4.5.

**Table 4.5**

#### **Summary of Model for Predictors of Entrepreneurial Intentions**



Model		B	SE	$\beta$	t	p	
1	Age	.155	.265	.024	.585	.559	
	Public University	1.012	.305	.153	3.314	.001	
	Business course	-.109	.302	-.017	-.361	.718	
2	Security career anchor	-.083	.020	-.262	-4.166	.000	
	Autonomy career anchor	.071	.017	.235	4.147	.000	
	Technical career anchor	-.048	.030	-.124	-1.582	.115	
	Management career anchor	.059	.024	.171	2.503	.013	
	Entrepreneurial career anchor	.102	.022	.293	4.688	.000	
	Dedication career anchor	-.102	.029	-.279	-3.574	.000	
	Challenge career anchor	.087	.028	.235	3.123	.002	
	Life Style career anchor	-.019	.022	-.055	-.876	.382	
	3	Entrepreneurial Risk Perception	-.031	-.011	-.119	-2.744	.006
		University Entrepreneurial Climate	.034	.010	.133	3.265	.001
Social Valuation		.041	.045	.041	.902	.368	
Social Norms		.189	.063	.153	2.998	.003	
Ability to Run Business		.265	.065	.244	4.053	.000	
Social Capital		.057	.016	.176	3.700	.000	

Model 1:  $R = .326$ ;  $R^2 = .106$ ;  $\Delta R^2 = .106$ ; Adjusted  $R^2 = .096$ ;  $F = 10.087$ ;  $df1 = 4$ ;  $df2 = 339$ ,  $p < .001$

Model 2:  $R = .598$ ;  $R^2 = .357$ ; Adjusted  $R^2 = .334$ ;  $\Delta R^2 = .251$ ;  $F = 2.921$ ;  $\Delta F = 16.166$ ;  $df1 = 8$ ,  $df2 = 331$ ,  $p < .001$ .

Model 3:  $R = .724$ ;  $R^2 = .525$ ; Adjusted  $R^2 = .429$ ;  $\Delta R^2 = .167$ ;  $F = 19.920$ ;  $\Delta F = 19.040$ ;  $df1 = 6$ ,  $df2 = 325$ ,  $p < .001$ .

The overall model was found to be significant ( $F = 19.920$ ,  $p < .001$ ) and accounted for 52.5% ( $R^2 = .525$ ) variance in entrepreneurial intentions. In step 1, the effect of the control variables on entrepreneurial intentions was significant ( $F = 10.087$ ,  $p < .001$ ), accounting for 10.6% variance ( $R^2 = .106$ ). Compared to students in private universities, those in public universities are 15.3% more likely to have entrepreneurial intentions ( $\beta = .153$ ,  $t = 3.314$ ,  $p < .01$ ).

In step 2, the career anchors significantly predicted entrepreneurial intentions ( $\Delta F = 16.166$ ,  $p < .001$ ), accounting for additional 25.1% variance ( $\Delta R^2 = .251$ ). Entrepreneurial intentions increase with increasing autonomy career anchor ( $\beta = .235$ ,  $t = 4.147$ ,  $p < .01$ ), entrepreneurial career anchor ( $\beta = .293$ ,  $t = 4.688$ ,  $p < .001$ ), management career anchor ( $\beta = .171$ ,  $t = 2.503$ ,  $p < .01$ ) and careers that challenge ( $\beta = .235$ ,  $t = 3.123$ ,  $p < .01$ ) but decreases with increasing security career anchor ( $\beta = -.262$ ,  $t = -4.166$ ,  $p < .001$ ), and increasing dedicated career anchor ( $\beta = -.279$ ,  $t = -3.574$ ,  $p < .001$ ).

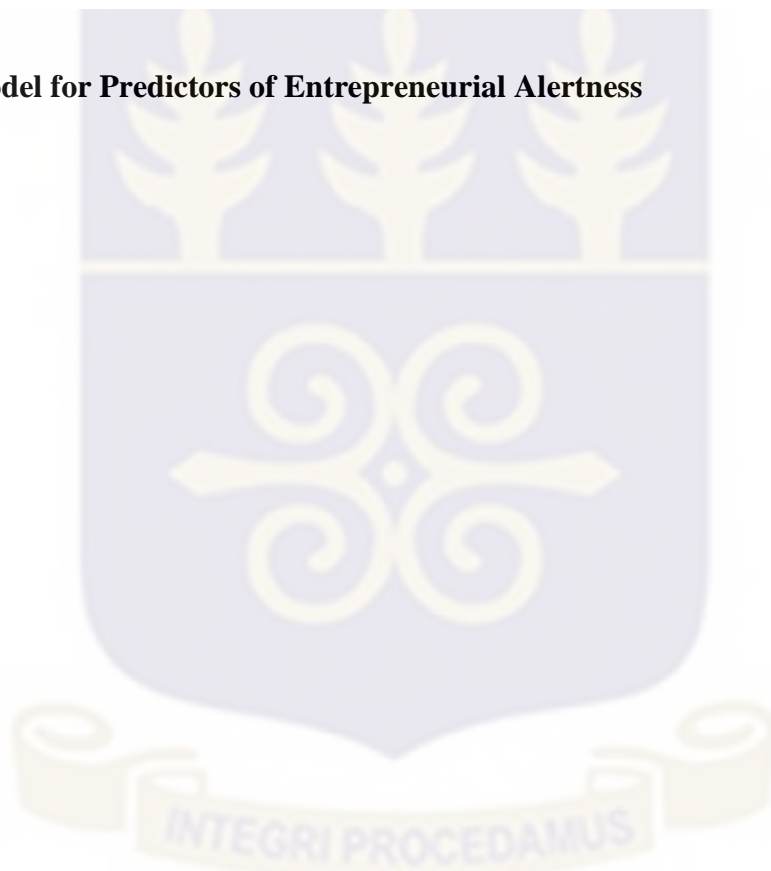
In step 3, the variables significantly predicted entrepreneurial intention ( $\Delta F = 19.040$ ,  $p < .001$ ), accounting for additional 16.7% variance ( $\Delta R^2 = .167$ ). Entrepreneurial intention was found to increase with increasing university entrepreneurial climate ( $\beta = .133$ ,  $t = 3.265$ ,  $p < .01$ ), increasing social norms for entrepreneurship ( $\beta = .153$ ,  $t = 1.53$ ,  $p < .01$ ), increasing perceived ability to run a business ( $\beta = .244$ ,  $t = 4.053$ ,  $p < .05$ ) and increasing social capital ( $\beta = .176$ ,  $t = 3.700$ ,  $p < .001$ ) but decreased with entrepreneurial risk perception ( $\beta = -.119$ ,  $t = -3.574$ ,  $p < .01$ ).

#### **4.3.2.2 Predictors of Entrepreneurial Alertness**

The results of the predictors of entrepreneurial alertness are summarized on Table 4.6.

**Table 4.5**

#### **Summary of Model for Predictors of Entrepreneurial Alertness**



Model		B	SE	$\beta$	t	p
1	Age	.023	.985	.001	.023	.982
	Public University	2.282	1.136	.080	2.008	.046
	Business course	3.231	1.125	.010	3.205	.029
2	Security career anchor	-.069	.082	-.046	-.846	.398
	Autonomy career anchor	.112	.064	.086	1.756	.080
	Technical career anchor	-.260	.113	-.156	-2.306	.022
	Management career anchor	.277	.088	.185	3.138	.002
	Entrepreneurial career anchor	.228	.081	.153	2.830	.005
	Dedication career anchor	-.320	.106	-.203	-3.012	.003
	Challenge career anchor	.574	.104	.359	5.521	.000
	Life Style career anchor	-.228	.074	-.167	-3.082	.002
	3	Entrepreneurial Risk Perception	-.020	.042	-.018	-.478
University Entrepreneurial Climate		.135	.039	.123	3.481	.001
Social Valuation		.926	.169	.213	5.467	.000
Social Norms		1.197	.235	.225	5.090	.000
Ability to Run Business		.523	.244	.112	2.149	.032
Social Capital		.475	.058	.338	8.231	.000

*Model 1:  $R = .354$ ;  $R^2 = .125$ ;  $\Delta R^2 = .125$ ; Adjusted  $R^2 = .115$ ;  $F = 12.154$ ;  $df1 = 4$ ;  $df2 = 339$ ,  $p < .001$*

*Model 2:  $R = .596$ ;  $R^2 = .356$ ; Adjusted  $R^2 = .332$ ;  $\Delta R^2 = .230$ ;  $F = 2.921$ ;  $\Delta F = 14.792$ ;  $df1 = 8$ ,  $df2 = 331$ ,  $p < .001$ .*

*Model 3:  $R = .804$ ;  $R^2 = .646$ ; Adjusted  $R^2 = .626$ ;  $\Delta R^2 = .290$ ;  $F = 32.938$ ;  $\Delta F = 44.392$ ;  $df1 = 6$ ,  $df2 = 325$ ,  $p < .001$ .*

The overall model was found to be significant ( $F = 32.938$ ,  $p < .001$ ) and accounted for 64.6% ( $R^2 = .646$ ) variance in entrepreneurial alertness. In step 1, the effect of the control variables on entrepreneurial alertness was significant ( $F = 12.154$ ,  $p < .001$ ), accounting for 12.5% variance ( $R^2 = .125$ ). Compared to students in private universities, those in public universities are 8% more

likely to be entrepreneurially alert ( $\beta = .080$ ,  $t = 2.008$ ,  $p < .05$ ). Also, compared to students read non-business courses, those who read business courses are 10% more likely to be entrepreneurially alert ( $\beta = .010$ ,  $t = 3.205$ ,  $p < .05$ ).

In step 2, the career anchors significantly predicted entrepreneurial alertness ( $\Delta F = 14.792$ ,  $p < .001$ ), accounting for additional 23% variance ( $\Delta R^2 = .2430$ ). Entrepreneurial alertness increases with increasing entrepreneurial career anchor ( $\beta = .153$ ,  $t = 2.83$ ,  $p < .01$ ), management career anchor ( $\beta = .185$ ,  $t = 3.138$ ,  $p < .01$ ) and careers that challenge ( $\beta = .359$ ,  $t = 5.521$ ,  $p < .001$ ) but decreases with increasing technical career anchor ( $\beta = -.156$ ,  $t = -2.306$ ,  $p < .05$ ), increasing dedicated career anchor ( $\beta = -.203$ ,  $t = -3.012$ ,  $p < .01$ ) and increasing lifestyle that do not support entrepreneurship ( $\beta = -.167$ ,  $t = -3.082$ ,  $p < .01$ ).

In step 3, the variables significantly predicted entrepreneurial alertness ( $\Delta F = 44.392$ ,  $p < .001$ ), accounting for additional 29% variance ( $\Delta R^2 = .290$ ). Entrepreneurial alertness was found to increase with increasing university entrepreneurial climate ( $\beta = .123$ ,  $t = 3.481$ ,  $p < .01$ ), increasing social value of entrepreneurship ( $\beta = .213$ ,  $t = 4.67$ ,  $p < .001$ ), increasing social norms for entrepreneurship ( $\beta = .225$ ,  $t = 5.090$ ,  $p < .001$ ), increasing perceived ability to run a business ( $\beta = .112$ ,  $t = 2.149$ ,  $p < .05$ ) and increasing social capital ( $\beta = .338$ ,  $t = 8.231$ ,  $p < .001$ ).

#### 4.4 Summary of Findings

The findings from the study are summarized below and on figure 2.

1. Group differences in entrepreneurial behaviours (entrepreneurial alertness and intentions) among the students

- a. Students who study non-business-related courses had higher intentions than those who study business-related courses
  - b. Students in public universities have higher entrepreneurial alertness and intentions compared to those in private universities.
2. With regards to psychological factors and entrepreneurial behaviours;
- a. Career anchors significantly predicted both entrepreneurial intentions and alertness. Entrepreneurial behaviours increased with increasing autonomy, entrepreneurship, management and challenge career anchors but decreases with increasing security and dedication career anchors. This supports hypothesis 1 of the study.
  - b. Entrepreneurial risk perception negatively predicted entrepreneurial intentions but not entrepreneurial alertness. This partially supports hypothesis 2.
  - c. Perceived ability to run a business positively predicted both entrepreneurial intentions and alertness. This supports hypothesis 3.
3. With regards to social factors and entrepreneurial behaviours;
- a. Subjective norms positively predicted entrepreneurial alertness but not entrepreneurial intentions. This supports hypothesis 4.
  - b. Social valuation of entrepreneurship positively predicted both entrepreneurial intentions and alertness. This supports hypothesis 5.
  - c. Social capital positively predicted both entrepreneurial intentions and alertness. This supports hypothesis 6.
4. With regards to institutional factors and entrepreneurial behaviours;
- a. University entrepreneurial climate positively predict entrepreneurial intentions but not entrepreneurial alertness. This partially support hypothesis 7.

#### 4.5 Observed Model

The observed model showed entrepreneurial intentions and alertness were predicted by a multi-level series of factors which included psychological factors (career anchors, entrepreneurial risk perception, ability to run a business), social factors (subjective norms, social valuation and social capital) and institutional factor (University Entrepreneurial Climate).

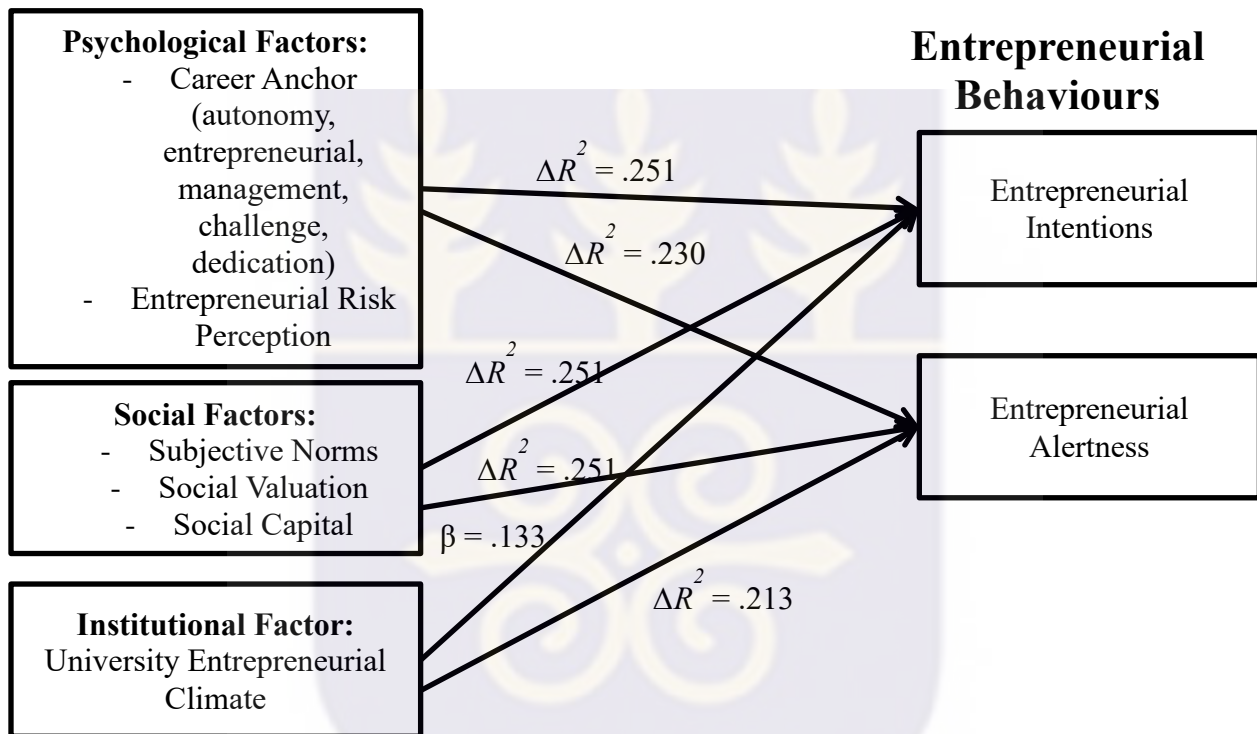


Figure 2: Observed Model of Predictors of Entrepreneurial Behaviours

## CHAPTER FIVE

### DISCUSSION

#### 5.1 Introduction

The bane of high unemployment, especially among university graduates in Ghana has increased the call on graduates to go into self-employment after school. The idea is that when students create jobs for themselves, the high unemployment rate would be reduced drastically. Entrepreneurship research, especially among university students has therefore increased in the last decade. However, for most part of entrepreneurship or self-employment research among university students, entrepreneurship has been detached from the context of career planning in general. Entrepreneurship research in Ghana has mainly been underpinned by the narrative of being a means of escaping unemployment. It is therefore not clear about the factors that shape entrepreneurial behaviours.

Using the occupational choice model and entrepreneurial motivation theory as framework, the current thesis sought to integrate entrepreneurial behaviours into the context of career planning to examine the complex factors that influence why university students would choose self-employment as a career path. Entrepreneurial behaviour was measured as entrepreneurial intentions which assessed students' intentions of choosing self-employment and entrepreneurial alertness which assessed students' active search for opportunities to be self-employed after school. The occupational choice model conceptualises self-employment as a career choice that students consider as against being salary worker (Parker, 2004). The entrepreneurial motivation behaviour also conceptualises self-employment choice as being influenced by interaction of psychological, social and institutional factors (Shane et al., 2003). Integrating entrepreneurial behaviours within

the context of career planning therefore help to understand how the pillars that hold career plans of university students affect their tendency to choose self-employment as a career choice.

The study was therefore underpinned by three key objectives. First, selected psychological factors that shape the tendency of choosing self-employment after school were examined. Secondly, the selected social factors that affect their self-employment choice were assessed and lastly, the influence of institution context on their entrepreneurial behaviours was also assessed. The objectives of the study were achieved by sampling 344 final year undergraduate students from four universities in Ghana.

In this chapter, the findings from the study are integrated and discussed to provide broader understanding of entrepreneurial behaviours among university students in Ghana. The practical and theoretical of the findings in the current study are discussed. After that the limitations in the current study are also discussed and recommendations made for future research.

## **5.2 Psychological Factors and Entrepreneurial Behaviours**

The first objective of the study examined how selected psychological factors affect entrepreneurial behaviour among the students. The psychological factors examined were career anchor (which had eight subscales that assessed the pillars that anchor career plans of the students), entrepreneurial risk perception and perceived ability of the students to successfully run a business. It was hypothesized that these selected psychological factors would affect whether or not the students would choose self-employment over and above seeking wage employment

Findings from the study showed that the psychological factors had different effects on entrepreneurial intentions and alertness among the students. Career anchors (what students seek in their career choice) were found to have significant effect on both entrepreneurial intentions and

alertness. Entrepreneurial behaviours among the students were found to increase where career anchors revolved around the quest for autonomy, entrepreneurship, management and challenge in career choice but decreases when career choice revolved around security and dedication career anchors.

Thus, when the students value autonomy, challenge, management and entrepreneurship in their preferred careers, their intentions and alertness to be self-employed increase. However, when they value security and dedication in their career choice, their intentions and alertness to be self-employed decrease. Also, when the students perceive starting a business as risky (entrepreneurial risk perception), their entrepreneurial intentions reduce but does not affect their entrepreneurial alertness. Lastly, when the student believes in their ability to run a business (perceived ability to run a business) their intentions and ability to be self-employed increase.

There is ample evidence to show that in Ghana, undergraduate students' preference being employed in either the public or private sector after graduation is high compared to being self-employed. Some studies in Ghana (e.g. Adam, 2014; Zakaria et al., 2014) have reported among university students in Ghana prefer to be hired by private or public institutions rather than being self-employed. Adam (2014) for instance reported among a sample of students of University of Development Studies that students preferred being employed in banks and other international organizations rather than setting up business on their own.

However, the reasons for the high preference for being hired compared to being self-employed are not well established. The findings from current study provide some level of insight why undergraduate students in Ghana have high preference for being employed rather than being self-employed. The current study shows that the decision of being self-employed among the students is complex, taken within the context of considering what they seek in a preferred career and self-

evaluation of their ability of running a business and the risk involved in venturing into a new business. This means that career values are important and self-evaluations are also critical when understanding entrepreneurial behaviour among undergraduate students in Ghana.

The findings are consistent with what has been reported among undergraduate students in high income countries. Hirschi and Fischer (2013) for instance reported among undergraduate students in a German university that students' choice of self-employed was influenced by their career values or anchors. Students whose career anchors or values revolve around self-enhancement and openness to change values were more likely to start their own business. They reported further that students who valued conservation values were less likely to be entrepreneurial. This means that when self-employment or entrepreneurship research is not integrated within the broader context of career planning and preferences, the decision to be either self-employed or be employed would not be well-understood.

What the findings from the study show is that the fact that there is high unemployment in Ghana in itself is not enough to push students into starting a business after school. One reason that might account for the findings being observed is the fact that self-employment is a career choice and career choices develop overtime. After spending several years in school, students develop values around with they hang their career preferences and therefore work to achieve them. Their self-evaluations in terms of their ability to run business and the risk they perceive in starting a business all align with what they value in a future career. Therefore, high unemployment in itself might not be enough to push them into employment choice that does not reflect or align with their self-evaluations and career anchors.

### **5.3 Social Factors and Entrepreneurial Behaviours**

The second objective of the study assessed how selected social factors affect entrepreneurial behaviours among the students. The selected social factors assessed were social valuation of entrepreneurship (which assess how the students think their society values self-employment), social norms (which assessed how students think the significant others around them would value self-employment as a career choice) and social capital (which assessed students evaluation to receive help from others when they start their own business). These factors are very important because of ample evidence to the effect that there is a social dimension to career planning where students are influenced by their social world (Williams et al., 2017; Yeng et al., 2011).

Findings from the current study showed that subjective norms positively predicted entrepreneurial alertness but not entrepreneurial intentions. This means that when students think that their significant others value entrepreneurship, their search for opportunities to be self-employed increases and vice-versa. Also, social valuation of entrepreneurship positively predicted both entrepreneurial intentions and alertness. Thus, when students perceive that self-employment is valued by their society, their intentions and alertness to be self-employed increase and vice-versa. Again, social capital positively predicted both entrepreneurial intentions and alertness. This means that when students believe that they have a lot of people who would provide help when they decide to start their own business, their intentions and alertness to be self-employed increase and vice-versa.

These findings mean that the decision to be self-employed or not is not just an individual-level decision but also equal a social decision. The students do not just consider their intra-personal preferences in but they also consider the suitability of their socio-cultural context for self-employment. These findings are in line with other studies (e.g. Malebanna, 2014; Yeng, Selvarajah

& Meyer, 2011) that have reported that the decision to be self-employed is a complex one that takes place within a socio-cultural context. For instance, Malebanna (2014) has reported that entrepreneurial motivation is enhanced by prior supportive social values, exposure to entrepreneurial role models, increasing awareness of entrepreneurial support and removing barriers that could prevent the creation of new ventures. In a more recent study, Williams et al., (2017) have also reported that even in deprived urban neighbourhoods, the breadth and variety of networks that individuals have are able to be used to promote the success of the business they start. The foregoing discussion therefore means that the choice of self-employment as preferred career paths also depends on supportive socio-cultural context that provide social resources that students can tap into towards self-employment. These findings might be explained by the fact that students are aware of the expectations that their significant other and the society at large have of them after their university education. Therefore, if the society does not provide good and resourceful context for being self-employed, they would not consider starting their own business after school. This means that the networks that the students themselves build (social capital) are important. But also important are the expectations that significant others (social norm) have of them and how the society at large perceives and values university students who start their own businesses after school (social valuation).

Thus, in terms of being self-employed, the social context of students acts as double-edged sword providing both resources and barriers for self-employment. This means that the 'agentic-self' that characterises discourse on self-employment among university students should need to be re-evaluated. The discourse should not just focus on the individual level predispositions, abilities and preferences of students but should also focus on the social. The social context should as such be

interrogated to unravel the resources and the barriers it provides for self-employment among university graduates.

#### **5.4 Institutional Factors and Entrepreneurial Behaviours**

The third objective of the study assessed how institutional factors impinge on self-employment among university students in Ghana. The institutional factor that was considered in the current study was the level of entrepreneurial climate that exist in universities. This is important because universities play critical role in the career choices of their students. In order to achieve this objective, a scale was adapted to measure the students' perception of the level of entrepreneurship climate that exist in their respective institutions. It was hypothesized that high level of entrepreneurial climate in universities would increase students' quest to go into self-employment after school.

In support of the hypothesis, findings from the study showed that university entrepreneurial climate positively predict entrepreneurial intentions but not entrepreneurial alertness. This means when universities emphasize on entrepreneurship within its social and institutional space, students are more likely to develop the intentions of starting their own business after school. These findings support some earlier studies concerning how universities shape entrepreneurship among students. Several studies (e.g. Peprah et al., 2015; Yeng, et al., 2014) have shown that the way universities structure their courses and the kind of entrepreneurship atmosphere that prevails in universities significantly affects employment choices of students. This is because, universities with positive entrepreneurial climate are regarded as natural incubators for breeding young entrepreneurs.

For instance, Yeng, et al., (2014) have reported that the students' career choices are influenced universities' role in promoting entrepreneurship and the entrepreneurial curriculum. Other studies

have also examined how universities position themselves for competitiveness when it comes to build strong entrepreneurial alumni. Kirby et al., (2011) in comparison of two universities for instance have also reported that universities have several factors that act as both facilitators and barriers of entrepreneurship. The facilitating factors were found to be positively associated with the indicators of entrepreneurial university which means that having facilitating factors for promoting entrepreneurship is very important for universities. In another study, Guerrero et al., (2013) compared universities in two European regions to examine the entrepreneurial cultures that exist among the universities. Using in-depth qualitative interviews, the researchers observed that despite sharing similar economic conditions, historical backgrounds, cultural and social structures, entrepreneurial cultures in the four universities were quite distinct. Some of the universities were found to be more entrepreneurially inclined than others. This was exhibited through their institutional arrangement, traditions, facilities and characteristics in individual universities.

The findings from the current study, together with those of earlier studies (e.g. Guerrero et al., 2013; Yeng, et al., 2014) show that universities shape entrepreneurship profoundly among their students. However, this factor has been missing the empirical lens of entrepreneurship research, especially in sub-Saharan Africa. The closer studies have come in terms of how universities shape entrepreneurship among students is examining how course of study affect self-employment choice among students. In Ghana, Peprah et al., (2015) for instance have reported that students reading business-related programs are more likely to start their own business compared to those studying science, Arts and Humanities courses

While studies like that of Peprah et al., (2015) provide insight that shape curricular in universities, overemphasis how course of study shape entrepreneurship, shields us from understanding how university curricular are shaped by the broader institutional factors that impinge on what

universities do including how they develop curricular. Focusing on entrepreneurial climate in universities reveals how universities position themselves to shape entrepreneurship among their universities. In Ghana for instance, the university curricular has been attacked by several stakeholders including the corporate world (Baah-Boateng, 2015). The criticism is that the curricular does not prepare students to be ready for the job market. So there have been several attempts to improve university curricular to produce students who fit the job market. This shows that universities in Ghana are place more emphasis on preparing students for wage employment than for self-employment.

Therefore, turning the lens on university entrepreneurship climate helps to understand how universities in Ghana position themselves to encourage entrepreneurship among their students. This would move the discourse beyond the rhetoric of oral encouragement for students to start their own businesses during congregations and speeches to practical policies and interventions that universities have put in place to support student entrepreneurship.

## **5.5 Implications of the Study**

Findings from the study show that entrepreneurial behaviour among students is considered within the context of career planning and not necessarily because there is inadequate job opportunities. Therefore, the choice of being self-employed and entrepreneurial is considered against the choice of being employed in other organizations. These findings have several implications, both practical and theoretical.

### **5.5.1 Practical Implications of the Study**

The findings have several practical implications on encouraging student entrepreneurship. First of all, the study has shown that career values are important and self-evaluations are also critical when

understanding entrepreneurial behaviour among undergraduate students in Ghana. Therefore, career anchors of students should be shaped and capacity provided to enhance positive self-evaluation towards starting a business. Policy interventions aimed at encouraging self-employment among the students should focus on conceptualising entrepreneurship as an enviable career choice and not as means of escaping unemployment after school. This is because the students spend four years at the university with the intention of building careers. That should be taken into consideration when selling the idea of entrepreneurship to the students

Secondly, findings from the study has shown that that the choice of self-employment as preferred career paths also depend on supportive socio-cultural context that provide social resources that students can tap into towards self-employment. This means that there should be equal emphasis on the capacity of Ghanaian society for producing entrepreneurs by assessing the resources vis-a-vis the barriers it provides for student entrepreneurship. Greater emphasis should be put into social re-engineering in building supportive socio-cultural contexts by creating social spaces where self-employment would be passionately discussed for student entrepreneurship.

Lastly, the findings from the study have shown that entrepreneurship climate that exists in universities shapes entrepreneurial behaviours among students. Therefore, there is therefore the need for universities in Ghana should be intentional about encouraging entrepreneurship through the creation of a supportive institutional culture for student entrepreneurship. Also, there is the need for rigorous empirical diagnostics of entrepreneurial climate in Ghanaian universities to examine facilitators and barriers to student entrepreneurship. This would help to reposition universities in Ghana to building strong alumni of entrepreneurs who the university can later call on for funding.

### **5.5.2 Theoretical Implications of the Study**

The theoretical implications of the findings in the current study lie in the division of career planning and entrepreneurial behaviours among the theories. The occupational choice model focuses on career planning as distinct behaviour from entrepreneurial behaviours and the entrepreneurial motivation theory also conceptualizes entrepreneurial behaviour independent of career planning. As a result, none of the theories adequately explains the findings from the study.

The current study therefore calls for revision of the two theories in two main ways. First, there is the need for theoretical reintegration of the occupational choice model and the entrepreneurial motivation theory to career planning and entrepreneurial behaviour as interrelated activities that shape each other. Secondly, the theories should be revised to encompass the multi-level nature of entrepreneurial behaviours among university students by emphasising on intra-personal, societal and institutional contexts within which student entrepreneurship occurs.

Based on the findings, the main thesis of the current study is that student entrepreneurship or student entrepreneurial behaviour should be understood using the ‘multi-level model of student entrepreneurial behaviour’. The proposed model captures the essence of the multi-faceted and multi-level analysis of student entrepreneurship to include individual level psychological factors, institutional level factors and broader societal level factors in order to adequately explain self-employment among university students.

### **5.6 Limitations of the Study**

The current study has some limitations that should guide interpretations and applications of the findings for policy interventions. The first limitation of the study relates to how entrepreneurial behaviours. Entrepreneurial behaviour was assessed using intentions and alertness. There is some evidence to show that entrepreneurial intentions do not always translate into actual entrepreneurial

behaviours (Anderson, Kreiser, Kuratko, Hornsby & Eshima, 2015). Therefore, the findings should be therefore being regarded as likelihood of being engaged in entrepreneurship and not actual entrepreneurship.

The second limitation relates to the way entrepreneurial alertness was measured. Close examination of the items in the scale shows that the behaviours being assessed were similar to behaviours individuals engage in when looking for jobs. It is therefore possible that responses provided by some respondents might not reflect their entrepreneurial behaviours but behaviours for looking for jobs.

### **5.7 Recommendations for Future Studies**

Despite the limitations of the study discussed above, findings from the current study provide valuable insight into the factors that affect the intentions and alertness of the students to be self-employed. It is therefore imperative that future studies build on the current study to provide deeper understanding into self-employment or entrepreneurial behaviour among undergraduate students. First of all, future studies are encouraged to test the proposed ‘multi-level model of student entrepreneurial behaviour’ on young entrepreneurs who started their business right after school without seeking any wage employment. This would provide practical on the group evidence to student entrepreneurship in Ghana.

Secondly, entrepreneurial behaviours among other student groups, especially among senior high school studies. In these respective, comparative studies using cross-sectional survey among high school students and students at different levels in universities would provide insight into entrepreneurial behaviours among students at different levels of education.

Lastly, qualitative studies should also be conducted to examine subjective understanding of students on such constructs or terms as career, self-employment and entrepreneurship. Such studies would provide understanding of how students make sense of these constructs and how that translates into student entrepreneurial behaviours.

### **5.8 General Conclusion**

The main purpose of this current study was to empirically examine psychological, social and institutional factors that shape entrepreneurial behaviours among undergraduate students in Ghana. The main variables in the study were psychological factors (career anchor, entrepreneurial risk perception and perceived ability to run a business), social factors (subjective norms, social valuation and social capital) and institutional factors (university entrepreneurial climate) which represent the independent variables. Entrepreneurial behaviors (entrepreneurial intentions and entrepreneurial alertness) also represents the dependents variables.

The study adopted two theories to serve as a framework (The Occupational Choice Model (OCM) and The Entrepreneurial Motivation Theory (EMT)). Related studies were reviewed to observe previous work or findings done at the area of the current study.

The study employed the quantitative research design approach as the method of data collection. Specifically, cross-sectional survey was used to collect self-reported data from participants. The Researcher conveniently selected four (4) universities from two great cities of Ghana (Greater Accra and Ashanti Region) to be the setting for the study. Analysis was done using hierarchical multiple regression.

In conclusion, the current thesis has shown that entrepreneurial behaviour among university students is complex and multifaceted. Entrepreneurial intentions and alertness among the students

were found to be affected by psychological, socio-cultural and institutional factors. This consistent with critical social psychological perspective that conceptualises behaviour as influence by multi-level factors. There is therefore the need for holistic theoretical models that adequately explain student entrepreneurship. In this respect, the ‘multi-level model of student entrepreneurial behaviour’ is proposed for researching and understanding student entrepreneurial behaviour.



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**APPENDICES I**

**ETHICAL DOCUMENTS**

Department of Psychology

University of Ghana

30<sup>th</sup> November, 2016.

The Chairperson  
Ethics Committee for Humanities  
ISSER, University of Ghana  
Legon  
Dear Chairperson

**Application for Ethical Approval**

Protocol Name: Psychosocial Predictors of Self-Employment among Undergraduate Students of Ghana: A Study of Selected Universities in Ghana.

I wish to submit to you the above-named protocol and essential documents for approval by your committee.

I look forward to receiving any comments that you may have in relation to the above.

Thank you for your co-operation.

Yours sincerely

\_\_\_\_\_  
(Principal Investigator's Name & Signature)

Enclosed:

1. Cover letter from investigator
2. Letter for Head of Department and Supervisor
3. New Protocol Submission Form
4. Protocol Consent Form
5. Research Proposal
6. Work Plan
7. Budget
8. Questionnaire/Instrument
9. CVs of PIs and Co-PIs



**UNIVERSITY OF GHANA**  
**ETHICS COMMITTEE FOR THE HUMANITIES (ECH)**

*P. O. Box LG 74, Legon, Accra, Ghana*

9<sup>th</sup> February, 2017

My Ref. No.....

Mr. Pious Affum  
Department of Psychology  
University of Ghana  
Legon

Dear Mr. Affum

**ECH 068/16-17: PSYCHOSOCIAL PREDICTORS OF SELF-EMPLOYMENT AMONG UNDERGRADUATE STUDENTS OF GHANA: A STUDY OF SELECTED UNIVERSITIES IN GHANA**

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date: 7/07/17  
On Agenda for: Initial Submission  
Date of Submission: 12/12/16  
ECH Action: Approved  
Reporting: Quarterly



Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante  
ECH Chair

CC: Dr. Maxwell Asumeng, Department of Psychology

UNIVERSITY OF GHANA



Official Use only  
Protocol number

**Ethics Committee for Humanities (ECH)**

PROTOCOL CONSENTFORM

Section A- BACKGROUND INFORMATION

Title of Study:	Psychosocial Predictors of Self-Employment Among University Students: A Study of Selected Universities in Ghana.
Principal Investigator:	Pious Affum MPhil Psychology Student
Certified Protocol Number	

Section B-CONSENT TO PARTICIPATE IN RESEARCH

**General Information about Research**

The aim of the study will be to empirically examine psychological, social and cultural factors that shape self-employment tendencies among undergraduate students in Ghana. This will be explored using Quantitative approach specifically, Cross-sectional Survey. Four universities will be chosen for the study (UG, KNUST, GBUC, MUCG) with a sample size of 400 for quantitative. Findings from this study will contribute to promote development and nation building through self-employment. The study will be analyzed using hierarchical multiple regression and Pearson r for the establishment of the relationships.

**Benefits/Risk of the study**

The study is risk free except the time and energy spent during the interview or responding to the questionnaires. Benefit of taking part in the study will help you to be familiar with the psychosocial factors and how self-employment choices are shaped by these factors which will in turn create awareness in spotting business opportunities in life.

### **Confidentiality**

Data that will be collected will be used for academic purposes only and also the issue of privacy and confidentiality will be taken care of. The researcher will make sure not to disclose any of the information about participants to any other people apart from those listed above.

### **Compensation**

Participants being students will be compensated by given them pens and exercise books for their participation in the study.

### **Withdrawal from Study**

Participants have the right to pull out of the study anytime without any obligation to provide justification. You will not be penalized nor punished even if your withdrawal will affect the study negatively. Should any information become available that may be relevant to your willingness to continue participation or withdraw you or your legal representative will be informed immediately.

### **Contact for Additional Information**

For further enquiries and clarifications kindly contact the researcher on 0243249140/0268247201 or through the email [atpmaffum@gmail.com](mailto:atpmaffum@gmail.com). You can also write to the Head of Psychology Department, University of Ghana.

Any questions about your right as a research participant in this study do contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana [atech@isser.edu.gh](mailto:atech@isser.edu.gh) / [ech@ug.edu.gh](mailto:ech@ug.edu.gh) or 00233- 303-933-866.

Section C-VOLUNTEER AGREEMENT

**"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."**

\_\_\_\_\_

Name of Volunteer

\_\_\_\_\_

Signature or mark of volunteer

\_\_\_\_\_

Date

**If volunteers cannot read the form themselves, a witness must sign here:**

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

\_\_\_\_\_

Name of witness

\_\_\_\_\_  
Signature of witness

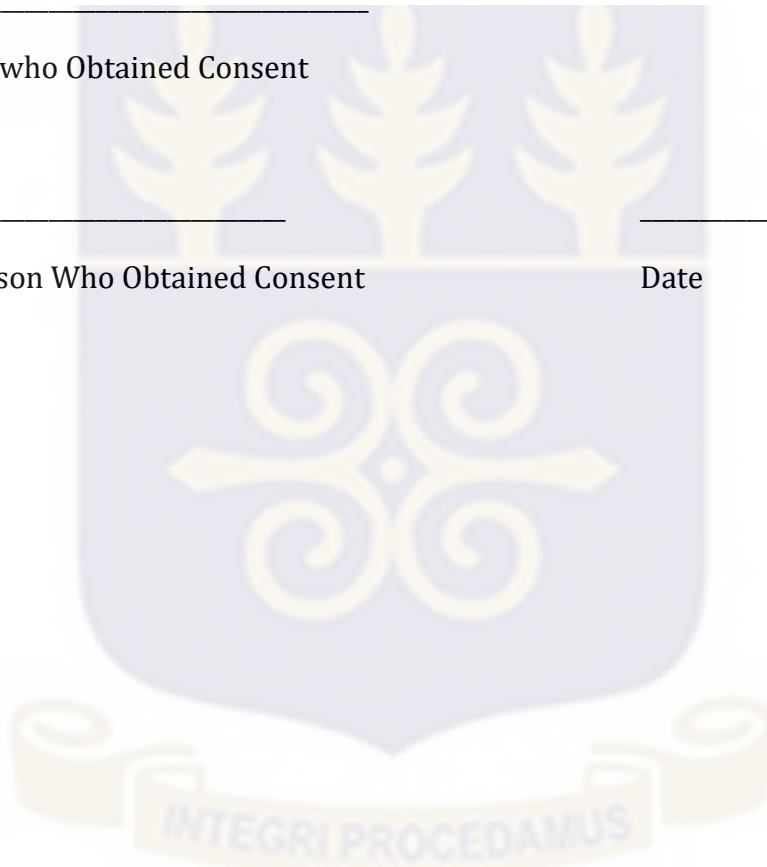
\_\_\_\_\_  
Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

\_\_\_\_\_  
Name of Person who Obtained Consent

\_\_\_\_\_  
Signature of Person Who Obtained Consent

\_\_\_\_\_  
Date



**APPENDICES II**

**QUESTIONNAIRE**

**UNIVERSITY OF GHANA**

**DEPARTMENT OF PSYCHOLOGY**

**A CAREER PLANNING AND ENTREPRENEURSHIP STUDY AMONG FINAL YEAR**

**UNDERGRADUATE STUDENTS**

This study examines employment preferences as well as factors that may influence self-employment among final year university students. The study is for academic purposes and participation voluntary with no associated penalty should you decline to participate. However, your participation in this study will reveal many things from different angles to help you understand your career status after graduation. Your privacy and confidentiality are assured as you will not be required to provide any personally identifying information. If you need any further clarification, you can reach the researcher on (0243 249140 / 0268247201).

Should you choose to participate, you will be required to fill this questionnaire that examines different factors that affect employment and self-employment decisions. Please fill out each the pages until the end where it is stated —**END OF SURVEY**. Specific guidelines and instructions are provided to guide you. Please do well not to skip any of the questions. There is no right or wrong answer, only respond according to how the items reflect your personal experiences. If you will like to know findings from the study, you can leave your email at the end.

Please sign if you consent to participate

---

Signature

---

Date

**DEMOGRAPHIC INFORMATION**

**Gender:** 1. Male [ ] 2. Female [ ]

**Age:** 1. Less than 18 [ ] 2. 18 – 20 years [ ] 3. 21 - 25years [ ]  
4. 26 - 30years [ ] 5. 30+ years [ ]

**Type of Institution:** 1. Public [ ] 2. Private [ ]

**Name of the Institution:** .....

**Course of Study:** .....

**How many siblings do you have?** (State in figure).....

**What is your birth order?** 1. First born [ ] 2. In-between [ ] 3. Last born [ ]

**Are any of your parents self-employed?** 1. Yes, Father [ ] 2. Yes, Mother [ ] 3. Yes, Both  
4. No, none of them [ ]

**CAREER CHOICES AND EMPLOYMENT PREFERENCES**

The items below examine elements of work that you consider as personally important that you would want to build your career around. For each statement, circle the number that best describes how important it is to have this factor in your work life after school.

CA		Very Important									Not Important
1	To belong to an organization and have a secure, long-term position is ...	10	9	8	7	6	5	4	3	2	1
2	To have a strong sense of freedom and independence in my work is ...	10	9	8	7	6	5	4	3	2	1
3	To be able to work in a job requiring high level of knowledge is ...	10	9	8	7	6	5	4	3	2	1
4	To have a job where a group of people have to report to me is ...	10	9	8	7	6	5	4	3	2	1
5	To own and run a business of my own is...	10	9	8	7	6	5	4	3	2	1
6	To have a job where I dedicate my time to others is.....	10	9	8	7	6	5	4	3	2	1
7	To be responsible for solving difficult problems of any kind is....	10	9	8	7	6	5	4	3	2	1

8	To include my family in my work life is..	10	9	8	7	6	5	4	3	2	1
9	Good benefits, guaranteed work, and a retirement program/pension are....	10	9	8	7	6	5	4	3	2	1
10	Being able to follow my own way without rigid rules imposed by an organization is .....	10	9	8	7	6	5	4	3	2	1
11	Doing the work I was trained for and interested in rather than being promoted out of my field of interest is.....	10	9	8	7	6	5	4	3	2	1
12	To have a position where I influence others is.....	10	9	8	7	6	5	4	3	2	1
13	Being responsible for building a new business is.....	10	9	8	7	6	5	4	3	2	1
14	Being excited about an important cause is.....	10	9	8	7	6	5	4	3	2	1
15	Having tough problems to solve is....	10	9	8	7	6	5	4	3	2	1
16	Integrating other parts of my life with my work life is.....	10	9	8	7	6	5	4	3	2	1
17	To have my work remain in the same location is.....	10	9	8	7	6	5	4	3	2	1
18	To be able to choose my own work hours is .....	10	9	8	7	6	5	4	3	2	1
19	Constantly learning new technical skills is.....	10	9	8	7	6	5	4	3	2	1
20	To work my up the management ladder is.....	10	9	8	7	6	5	4	3	2	1
21	To start a business from scratch and create something new and original is.....	10	9	8	7	6	5	4	3	2	1
22	Being of service to others in a meaningful way is.....	10	9	8	7	6	5	4	3	2	1
23	Reaching and growing beyond my current level is.....	10	9	8	7	6	5	4	3	2	1
24	Flexibility in location, work, and hours	10	9	8	7	6	5	4	3	2	1
25	Knowing where I will be working and what I will be doing year after year is...	10	9	8	7	6	5	4	3	2	1
26	The freedom to choose the direction of my career path is.....	10	9	8	7	6	5	4	3	2	1
27	The ability to use technical skills or knowledge to complete a clearly defined project is.....	10	9	8	7	6	5	4	3	2	1
28	Supervising, leading, and influencing others is.....	10	9	8	7	6	5	4	3	2	1
29	Having the challenge of creating something new is.....	10	9	8	7	6	5	4	3	2	1

30	Knowing that my work is contributing to the wellbeing of others is.....	10	9	8	7	6	5	4	3	2	1
31	Having challenges and tasks that stretch my abilities is ...	10	9	8	7	6	5	4	3	2	1
32	Having sabbaticals or other leaves to pursue activities outside of work is.....	10	9	8	7	6	5	4	3	2	1
	<b>How true is each of the following statements for you?</b>	<b>Vey True</b>									<b>Not True</b>
33	I would be more interested in remaining in my present location rather than moving even if it offered a promotion	10	9	8	7	6	5	4	3	2	1
34	I am more concerned with my own freedom and autonomy than with any other factor in my work life	10	9	8	7	6	5	4	3	2	1
35	I am very proud of my technical and functional competence for work	10	9	8	7	6	5	4	3	2	1
36	Managing other people would give me a strong sense of achievement	10	9	8	7	6	5	4	3	2	1
37	Owning my own business is very important to me	10	9	8	7	6	5	4	3	2	1
38	Being dedicated to a worthwhile cause is very important to me.	10	9	8	7	6	5	4	3	2	1
39	Projects are interesting to me only when they are really challenging	10	9	8	7	6	5	4	3	2	1
40	I am more interested in an integrated lifestyle than in career promotion	10	9	8	7	6	5	4	3	2	1
41	I need to belong to an organization to feel satisfied in my work life	10	9	8	7	6	5	4	3	2	1
42	The more freedom I have to do what I want the happier I am at work	10	9	8	7	6	5	4	3	2	1
43	I would be interested in being a manager only if I could continue working in my area of expertise	10	9	8	7	6	5	4	3	2	1
44	It gives me great satisfaction to be promoted into positions where I can exercise greater management authority	10	9	8	7	6	5	4	3	2	1
45	Creating new business ideas and turning them into reality has been something I've wanted to do for a long time	10	9	8	7	6	5	4	3	2	1
46	I enjoy volunteering with dedication even when there is little or no compensation	10	9	8	7	6	5	4	3	2	1
47	I would live or work almost anywhere if the job had some real challenges	10	9	8	7	6	5	4	3	2	1

48	My family, my hobbies, my friends, and my recreation are just as important to me as my work	10	9	8	7	6	5	4	3	2	1
49	I would be unhappy working without job security	10	9	8	7	6	5	4	3	2	1
50	I have difficulty dealing with organizational rules and regulations	10	9	8	7	6	5	4	3	2	1
51	Becoming more knowledgeable in my field is a great source of pride and satisfaction	10	9	8	7	6	5	4	3	2	1
52	Supervising others and leading them to achieve a targets is very important to me	10	9	8	7	6	5	4	3	2	1
53	The satisfaction of solving problems in my own business motivates me	10	9	8	7	6	5	4	3	2	1
54	I think I have a contribution to make toward improving the world and helping people	10	9	8	7	6	5	4	3	2	1
55	Competition in the work place helps me to produce my best work	10	9	8	7	6	5	4	3	2	1
56	I am only satisfied at work when my family life gets adequate attention	10	9	8	7	6	5	4	3	2	1
57	I like being part of a large organization where I can be sure that my job, work, and salary are relatively secure	10	9	8	7	6	5	4	3	2	1
58	I like working in a position that allows freedom and less restriction	10	9	8	7	6	5	4	3	2	1
59	I feel best when I can solve technical problems in my area of expertise	10	9	8	7	6	5	4	3	2	1
60	I feel best when others come to me for advice about how to get their jobs done	10	9	8	7	6	5	4	3	2	1
61	I want own my own ideas, turn them into business and benefit from the money earned by creating something new	10	9	8	7	6	5	4	3	2	1
62	I care more about people, environment, peace, and other critical issues than I do about promotions and success	10	9	8	7	6	5	4	3	2	1
63	No pain, no gain!	10	9	8	7	6	5	4	3	2	1
64	Happiness is a function of a balanced and integrated work and lifestyle	10	9	8	7	6	5	4	3	2	1

The items below examine your perception of risks associated with these activities involved in starting a business. For each statement, circle the number [*1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Somehow (S), 4 = Agree (A), 5 = Strongly Agree (SA)*] that best describes how important it is to have this factor in your future work life.

ERP	ITEMS	SD	D	S	A	SA
-----	-------	----	---	---	---	----

1	Starting a new business is very risky for me	1	2	3	4	5
2	Launching a new business may have negative consequences for my future career	1	2	3	4	5
3	I see the possibility of starting a business as a potential loss	1	2	3	4	5
4	I see the possibility of starting a business as a potential opportunity to pursue.	1	2	3	4	5
5	The probability of a new business doing poorly is very high	1	2	3	4	5
6	Someone can lose a lot of money by starting a new business	1	2	3	4	5
7	There is no certainty that a new business will be successful	1	2	3	4	5
8	Chances of reaping financial benefits in a new business are quite high	1	2	3	4	5
9	The overall riskiness of starting a new business is high	1	2	3	4	5
10	Overall I would label the option of starting a business as something positive	1	2	3	4	5
11	Starting a new business may have negative consequences for my professional or career life	1	2	3	4	5
12	There is a high probability of a person losing respect from family and friends by starting his/her own business	1	2	3	4	5
13	Starting my own business may have a positive impact on how my family and friends see me.	1	2	3	4	5
14	Starting my own business may have a positive influence on my self-confidence	1	2	3	4	5
15	Starting my own business may affect my personal life in a positive way	1	2	3	4	5
16	Launching a new venture may affect my social relationships in a very unpredictable way	1	2	3	4	5
17	If I don't start my own business, I may be missing a great opportunity	1	2	3	4	5
18	When starting a new business, the chances of going bankrupt are very high.	1	2	3	4	5
19	When starting a new business, the chances of becoming a millionaire are very high	1	2	3	4	5
20	Creating a new business may have negative consequences for my relationships with family and friends.	1	2	3	4	5
21	If I failed in starting a business, I would lose my self-esteem	1	2	3	4	5
22	If I start a new business, I would lose other monetary opportunities.	1	2	3	4	5
23	Starting a business may affect my social life in a positive way	1	2	3	4	5

The following items explore your awareness of the existence or otherwise of the extent to which you think your university does the following to support students who want to start their own businesses after school. Please indicate to which extent you agree with each of the following statements. (5 = *Strongly Agree*, 4 = *Agree*, 3 = *Somehow*, 2 = *Disagree*, 1 = *Strongly Disagree*).

<b>UEC</b>	<b>In this university:</b>	<b>SA</b>	<b>A</b>	<b>S</b>	<b>D</b>	<b>SD</b>
------------	----------------------------	-----------	----------	----------	----------	-----------

1	There are key objectives for supporting entrepreneurship among students	5	4	3	2	1
2	The university may be a shareholder in a new company	5	4	3	2	1
3	There are written strategic documents for promoting entrepreneurship among students	5	4	3	2	1
4	There are entrepreneurship supports available for students	5	4	3	2	1
5	There are entrepreneurship support materials and information at the university's website	5	4	3	2	1
6	There are people designated by the university to mentor students who want to be entrepreneurs	5	4	3	2	1
7	There is a component of entrepreneurship education in all courses in the university	5	4	3	2	1
8	There is a permanent or designate department or unit set up to support start-up businesses among students	5	4	3	2	1
9	There is a business incubation facility that is available to all students who want to start their own business	5	4	3	2	1
10	There are frequent entrepreneurship programs and activities organized on campus	5	4	3	2	1
11	Students who wants to be entrepreneurs are linked up with other organizations for support	5	4	3	2	1
12	There is a constant search or advertisement for students who want to be entrepreneurs	5	4	3	2	1
13	Students who want to be entrepreneurs are always left on their own without any support	5	4	3	2	1
14	Entrepreneurship programs are reserved for students offering specific courses	5	4	3	2	1
15	Business plan competitions are organized among students frequently	5	4	3	2	1
16	The university participates in inter-university business plans competitions	5	4	3	2	1
17	The university maintains regular contacts with business angels or venture capitalists who provides financial support to business ideas among students	5	4	3	2	1
18	Lecturers constantly remind and encourage students to set-up their own businesses	5	4	3	2	1
19	Students who want to be entrepreneurs are linked with successful business alumni for mentorship	5	4	3	2	1
20	There are a lot of research on student entrepreneurship being undertaken on campus	5	4	3	2	1
21	Business owners and successful entrepreneurs are mostly recruited to teach entrepreneurship courses	5	4	3	2	1
22	Entrepreneurship support for students is made visible everywhere on campus	5	4	3	2	1
23	There is funding to support students who want to enter into entrepreneurship	5	4	3	2	1

24	There are free courses or open courses on entrepreneurship that any student can register and attend classes without writing exam	5	4	3	2	1
25	There are platform for students who want to enter into entrepreneurship to meet and network	5	4	3	2	1

The following items examine the intentions you have about setting up your own business or employing yourself after your first degree. Please indicate to which extent you agree with each statement. (*1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree*).

EI	Items	SD	D	N	A	SA
1	I am ready to do anything to set up my own business after school	1	2	3	4	5
2	My professional goal is to be an entrepreneur	1	2	3	4	5
3	I will make every effort to start and run my own business	1	2	3	4	5
4	I am determined to create a business venture in the future	1	2	3	4	5

The items examine the extent to which the people around you think about working for yourself and working for others. (*1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree*).

SV		SD	D	N	A	SA
1	My immediate family values being self-employed than being employed by other people	1	2	3	4	5
2	My friends value being self-employed than being employed by other people	1	2	3	4	5
3	My school mates value being self-employed than being employed by other people	1	2	3	4	5
4	In my country, people who own their own businesses are respected than those who are employed by others	1	2	3	4	5
5	The culture in my country is highly favorable towards the entrepreneurs than others	1	2	3	4	5

The items examine the extent to which you think that the people around you will react if you made a decision to open your own business after your first degree. (*1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree*).

SN		SD	D	N	A	SA
1	My friends would approve of a decision to start my own business after school	1	2	3	4	5
2	My immediate family would approve of a decision to start my own business after school	1	2	3	4	5
3	My course mates would approve of a decision to start my own business after school	1	2	3	4	5

The items examine the extent to which you think that you can manage a business of your own after your first degree. (*1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree*).

ARB		SD	D	N	A	SA
1	To start a business and keep it working would be easy for me to do after school	1	2	3	4	5
2	I am prepared to do anything to ensure that any business I create after school succeeds	1	2	3	4	5
3	If I want to, I can easily start and run my own business after school	1	2	3	4	5
4	If I tried to start a business after school, I would have a high chance of being successful	1	2	3	4	5

The following items examine the extent to which you are or plan to engage in any of these behaviours that are geared towards trying to open your own business after your first degree. Please indicate to which extent you agree with each of the following statements. (*1 = Strongly Disagree, 2 = Disagree, 3 = Somehow, 4 = Agree, 5 = Strongly Agree*).

EA	Items	SD	D	S	A	SA
1	I have frequent interactions with others to acquire new information about a business opportunity	1	2	3	4	5
2	I always keep an eye out for new business ideas when looking for information	1	2	3	4	5
3	I read news, magazines, or trade publications regularly to acquire new business information	1	2	3	4	5
4	I browse the internet every day for business information	1	2	3	4	5
5	While going about day-to-day activities, I try to look for new business ideas	1	2	3	4	5
6	I am a fun of information seeking about business ideas	1	2	3	4	5
7	I am always actively looking for new information	1	2	3	4	5
8	I regularly seek information from new business development resource centers (such as small business centers, websites,)	1	2	3	4	5
9	I often see new combinations of ideas, materials or products	1	2	3	4	5
10	I often make new connections and perceive new or emergent relationships between various pieces of information	1	2	3	4	5
11	I often find differences between the way I see certain situations and the way other people see them	1	2	3	4	5
12	I often come up with new ideas of solving problems	1	2	3	4	5
13	I often think “outside the box”.	1	2	3	4	5
14	I see links between seemingly unrelated pieces of information	1	2	3	4	5
15	I am good at “connecting dots.”	1	2	3	4	5
16	I often see connections between previously unconnected domains of information.	1	2	3	4	5
17	“Seeing” potential new business opportunities comes very naturally to me.	1	2	3	4	5

18	I have a special alertness or sensitivity toward profitable opportunities	1	2	3	4	5
19	I have a gut feeling for potential opportunities	1	2	3	4	5
20	I can distinguish between profitable opportunities and not-so-profitable opportunities	1	2	3	4	5
21	I have an extraordinary ability to determine profitable business opportunities	1	2	3	4	5
22	I am good at telling high-value opportunities apart from low-value opportunities.	1	2	3	4	5
23	When it comes to business opportunities, I am good at filtering or blocking out insignificant information to make decisions.	1	2	3	4	5
24	When facing multiple opportunities, I am able to select the good ones.	1	2	3	4	5

Here a number of statements that examine the extent of relationships that you can tap into if you wanted to open your own business. Please indicate to which extent you agree with each of the following statements. (*1 = Strongly Disagree, 2 = Disagree, 3 = Somehow, 4 = Agree, 5 = Strongly Agree*).

SCC	Items	1	2	3	4	5
1	There are several people online/offline I trust to help solve my problems	1	2	3	4	5
2	There is someone online/offline I can turn to for advice about making very important decisions	1	2	3	4	5
3	There is no one online/offline that I feel comfortable talking to about personal problems	1	2	3	4	5
4	When I feel lonely, there are several people online/offline I can talk to	1	2	3	4	5
5	If I needed an emergency loan of GHC500, I know someone online/offline I can turn to	1	2	3	4	5
6	The people I interact with online/offline would put their reputation on the line for me	1	2	3	4	5
7	The people I interact with online/offline would be good job references for me	1	2	3	4	5
8	The people I interact with online/offline would share their last money with me	1	2	3	4	5
9	I do not know people online/offline well enough to get them to do anything important.	1	2	3	4	5
10	The people I interact with online/offline would help me fight an injustice.	1	2	3	4	5
11	Interacting with people online/offline makes me interested in things that happen outside of my town.	1	2	3	4	5
12	Interacting with people online/offline makes me want to try new things.	1	2	3	4	5

13	Interacting with people online/offline makes me interested in what people unlike me are thinking.	1	2	3	4	5
14	Talking with people online/offline makes me curious about opportunities available in other places	1	2	3	4	5
15	Interacting with people online/offline makes me feel like part of a larger community	1	2	3	4	5
16	Interacting with people online/offline makes me feel connected to the bigger picture	1	2	3	4	5
17	Interacting with people online/offline reminds me that everyone in the world is connected.	1	2	3	4	5
18	I am willing to spend time to support general online/offline community activities	1	2	3	4	5
19	Interacting with people online/offline gives me new people to talk to.	1	2	3	4	5
20	Online/Offline, I come in contact with new people all the time.	1	2	3	4	5

*End of Survey, Thanks for your participation.*



**APPENDICES III**  
**Factor Analysis Tables**

**Communalities**

	Initial	Extraction
To belong to an organization and have a secure, long-term position is ...	1.000	.426
I need to belong to an organization to feel satisfied in my work life	1.000	.630
The more freedom I have to do what I want the happier I am at work	1.000	.535
I would be interested in being a manager only if I could continue working in my area of expertise	1.000	.452
It gives me great satisfaction to be promoted into positions where I can exercise greater management authority	1.000	.452
I enjoy volunteering with dedication even when there is little or no compensation	1.000	.505
I would live or work almost anywhere if the job had some real challenges	1.000	.533
My family, my hobbies, my friends, and my recreation are just as important to me as my work	1.000	.493
I would be unhappy working without job security	1.000	.485
Becoming more knowledgeable in my field is a great source of pride and satisfaction	1.000	.551

Supervising others and leading them to achieve a targets is very important to me	1.000	.424
The satisfaction of solving problems in my own business motivates me	1.000	.471
I think I have a contribution to make toward improving the world and helping people	1.000	.501
Competition in the work place helps me to produce my best work	1.000	.436
I am only satisfied at work when my family life gets adequate attention	1.000	.607
I like being part of a large organization where I can be sure that my job, work, and salary are relatively secure	1.000	.516
I feel best when I can solve technical problems in my area of expertise	1.000	.440
I feel best when others come to me for advice about how to get their jobs done	1.000	.471
I want own my own ideas, turn them into business and benefit from the money earned by creating something new	1.000	.634
I care more about people, environment, peace, and other critical issues than I do about promotions and success	1.000	.626
No pain, no gain!	1.000	.766

Happiness is a function of a balanced and integrated work and lifestyle	1.000	.632
The ability to use technical skills or knowledge to complete a clearly defined project is.....	1.000	.590
Supervising, leading, and influencing others is.....	1.000	.564
Having the challenge of creating something new is.....	1.000	.412
Knowing that my work is contributing to the wellbeing of others is.....	1.000	.538
Having challenges and tasks that stretch my abilities is ...	1.000	.438
Having sabbaticals or other leaves to pursue activities outside of work is.....	1.000	.543
Managing other people would give me a strong sense of achievement	1.000	.553
Owning my own business is very important to me	1.000	.495
Being dedicated to a worthwhile cause is very important to me.	1.000	.530
I am more interested in an integrated lifestyle than in career promotion	1.000	.527
I need to belong to an organization to feel satisfied in my work life	1.000	.541
I would be interested in being a manager only if I could continue working in my area of expertise	1.000	.623

It gives me great satisfaction to be promoted into positions where I can exercise greater management authority	1.000	.649
Creating new business ideas and turning them into reality has been something I've wanted to do for a long time	1.000	.617
I enjoy volunteering with dedication even when there is little or no compensation	1.000	.432
I would live or work almost anywhere if the job had some real challenges	1.000	.560
My family, my hobbies, my friends, and my recreation are just as important to me as my work	1.000	.384
I would be unhappy working without job security	1.000	.480
I have difficulty dealing with organizational rules and regulations	1.000	.453
Becoming more knowledgeable in my field is a great source of pride and satisfaction	1.000	.546
Supervising others and leading them to achieve a targets is very important to me	1.000	.454
The satisfaction of solving problems in my own business motivates me	1.000	.650
I think I have a contribution to make toward improving the world and helping people	1.000	.578

Competition in the work place helps me to produce my best work	1.000	.413
I am only satisfied at work when my family life gets adequate attention	1.000	.254
I like being part of a large organization where I can be sure that my job, work, and salary are relatively secure	1.000	.591
I like working in a position that allows freedom and less restriction	1.000	.516
I feel best when I can solve technical problems in my area of expertise	1.000	.580
I feel best when others come to me for advice about how to get their jobs done	1.000	.625
I want own my own ideas, turn them into business and benefit from the money earned by creating something new	1.000	.594
I care more about people, environment, peace, and other critical issues than I do about promotions and success	1.000	.522
No pain, no gain!	1.000	.557
Happiness is a function of a balanced and integrated work and lifestyle	1.000	.548
The more freedom I have to do what I want the happier I am at work	1.000	.371

I have difficulty dealing with organizational rules and regulations	1.000	.213
I like working in a position that allows freedom and less restriction	1.000	.336
I am more concerned with my own freedom and autonomy than with any other factor in my work life	1.000	.294

Extraction Method: Principal Axial Factoring.

