

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI, GHANA**

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Development of a Framework for Entrepreneurial Learning in Technical Education

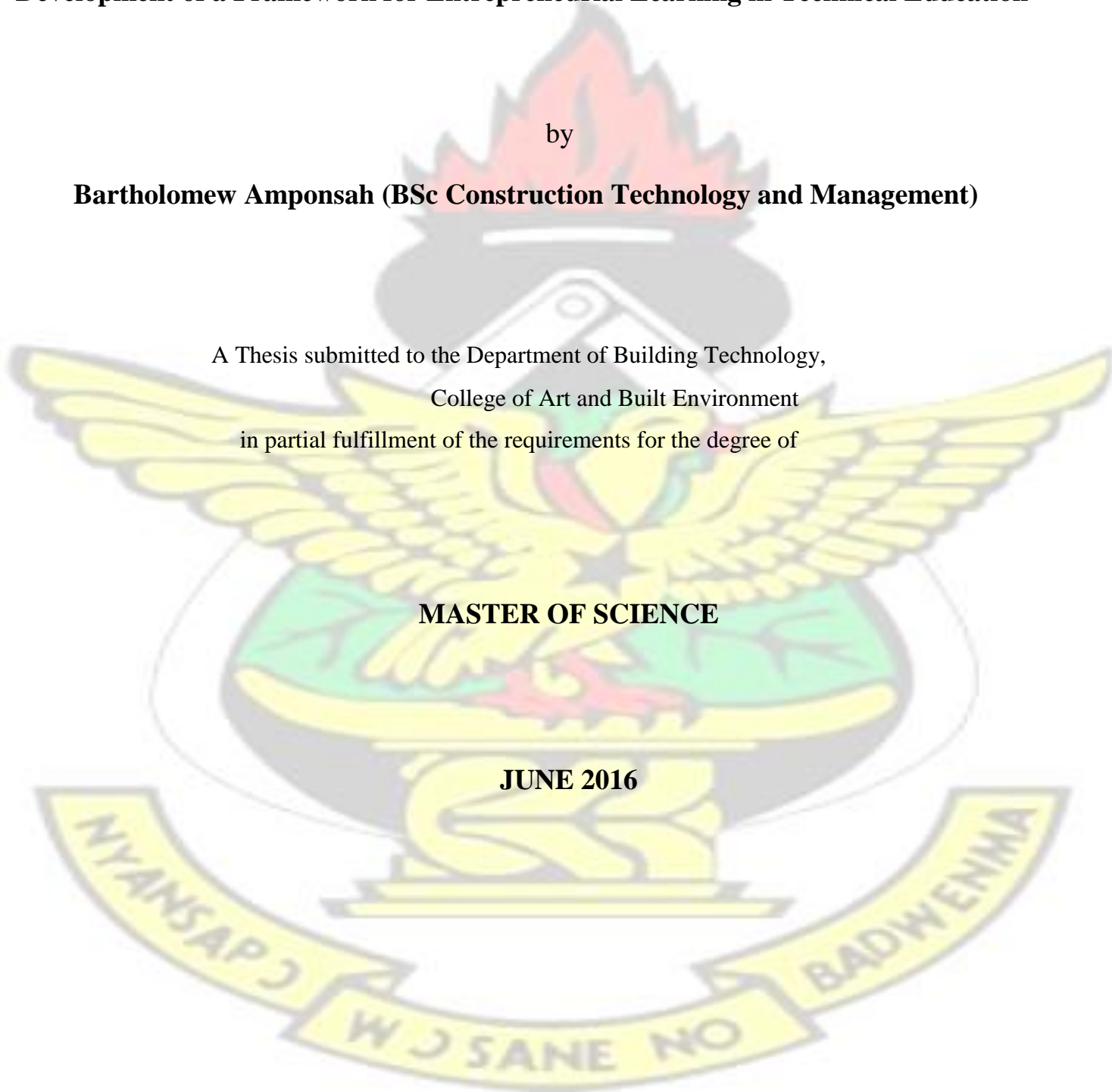
by

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A Thesis submitted to the Department of Building Technology,
College of Art and Built Environment
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

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CERTIFICATION

I hereby declare that this submission is my own work towards the MSc Construction Management and that, to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

The emergence of entrepreneurial learning has become a significant domain of inquiry in reference to both academic study of entrepreneurship and practical creation of new entrepreneurs. Learning is an essential ability to develop entrepreneurial qualities. The knowledge, skills and abilities needed through the different phases of venture creation can be acquired through successfully learning, in order that they can be applied subsequently. Entrepreneurial learning in technical education in Ghana is seen as one of the best tools to achieve economic development. It can be used to solve the graduate unemployment in the country. It has therefore become urgent to encourage people to opt for entrepreneurship after school. This thesis, by gathering relevant research findings, aims to develop a theoretical model to aid facilitate entrepreneurial education in technical education in Ghana. Three objectives were set on which literature review was conducted on which includes: the challenges confronting entrepreneurial learning, the relevance of entrepreneurial learning and development of a framework for facilitating entrepreneurial learning in technical education in Ghana. Philosophically, the study leaned towards the positivism paradigm. Quantitative method was adopted in which survey questionnaires were administered to respondents in gathering primary data. The analytical tools utilized were descriptive statistics and Relative Importance Index (RII). Out of the findings of the research conducted it indicated that: Unreliable access to capital, High loan interest rate, Inflation and High economic cost of doing business are the most significant challenges confronting entrepreneurial learning. Also it was established that Reduce unemployment, Income generation and increased economic growth, Enhancement of individual's creativity and innovations and Provision of selfemployment are the most significance of entrepreneurial learning. Furthermore, it was establish that Development of personal values, Development of self-efficacy, Opportunity recognition, Goal-setting, Motivation, Coping with the liability of newness and Creating relationships and social learning are the most significant themes that will facilitate entrepreneurial learning in technical education in Ghana. It is recommended that students must be encouraged to opt for entrepreneurship after school and Government regulatory set-up must be supportive enough to encourage citizens to engage in entrepreneurship.

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DEDICATION

This dissertation is dedicated to all my family members, friends and loved ones most especially my wife and my children.

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CHAPTER ONE

GENERAL INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

This study is an investigation into the field of entrepreneurial learning, with particular focus on framework development in technical education as an academic discipline. This chapter presents a general overview of the study which highlights the research in terms of the background and the problem statement of the study. The aim, objectives and research questions of the study are also presented and thereafter justification of the study provided, the adopted methodology, scope of the study, limitation and general organization of the study presented.

1.2 BACKGROUND TO STUDY

According to Deakins (2000) the emergence of entrepreneurial learning has become a significant domain of inquiry in reference to both academic study of entrepreneurship and practical creation of new entrepreneurs. Learning is an essential ability to develop entrepreneurial qualities (Rae & Carswell, 2000). The knowledge, skills and abilities needed through the different phases of venture creation can be acquired through successfully learning, in order that they can be applied subsequently. In view of this, learning is seen as (Deakins *et al.*, 2000) central to the process of entrepreneur development. According to Young (1997) the nature and relevance of entrepreneurship education is been subjected to increased critical observation recently.

Entrepreneurship according to Shane & Venkataraman (2000) is a process of creating, recognizing and acting on opportunities, innovating, decision making and enacting.

Learning is a sense-making process whereby an individual develop (Mumford, 1995) the ability to behave differently, which comprises knowing, doing and understanding why. In the view of Weick (1995) through learning, individuals make meaning through experiences and develop new reality. Entrepreneurship and learning are integrally constructivist behavioral and social process. Entrepreneurial learning in this view means learning to recognize and acting on opportunities, interacting socially to create, organize and manage business ventures (Weick, 1995). Entrepreneur is an individual, who creates and innovates to develop something valuable around perceived opportunities (Bolton & Thompson, 2000). The act of learning and various opportunities provided to be able to learn are central to entrepreneurial practices, since learning influence the recognition of opportunities, development of soft skills, cultures and processes which are all necessary for sustaining innovative practices (Baron & Ensely, 2006; Spicer & Sadler-Smith, 2006).

Technical and vocational education training have been marked as a tool that aid youth and older people unemployed to acquire job, decrease the encumbrance of higher education, ensures rapid growth of earnings and help minimize the inequality of earnings between the poor and the rich (Alam, 2008). In a study conducted in Ghana, Akyeampong (2002) pinpoint that technical and vocational education contributes to cultural, social, economic and political development of the nation. According to Alam (2008) technical education can only be effective in promoting national development if the acquired skills are utilized appropriately. Promoting national development is better achieved through entrepreneurial learning. That is, entrepreneurship is documented among the best tools to economic prosperity of a nation (Wongnaa & Seyran, 2014).

Also, Turker & Selcuk (2009) added that entrepreneurial learning in technical colleges, when put into practice is not only seen as development of technological innovations, but it also provides employment opportunities and increased competitiveness. Also, becoming entrepreneur with the technical knowledge and skills after graduating from school is relevant component in solving development problems (Maas & Herrington, 2006). Herrington (2009) further comment that entrepreneurship and new firm creation have become the focus for closing the unemployment rate since the government has failed in its duty to employ graduates. In conclusion entrepreneurship can be counted as a panacea to graduate unemployment in Ghana if it is given much attention (Wongnaa & Seyram, 20014).

1.3 STATEMENT OF PROBLEM

Entrepreneurial learning in technical education in Ghana is seen as one of the best tools to achieve economic development. It can be used to solve the graduate unemployment in the country (Wongnaa & Seyram, 2014). In spite of the potentials in the Ghanaian polytechnics and universities, Denanyoh *et al.* (2015) argue that government regulatory set-up is not supportive enough to encourage citizens to engage in entrepreneurship. These among others have contributed to poor participation in entrepreneurship, more especially, graduates from the polytechnics or universities and other technical institutions. In view of these, the country still experience high unemployment rate (Wongnaa & Seyram, 2014). It has therefore become urgent to encourage people to opt for entrepreneurship after school.

A central question in the debate on economic growth is to what extent entrepreneurship education and training contributes towards stimulating entrepreneurship and economic development. A conducive environment which includes high market demand,

favourable government policies, a culture that values enterprise and the availability of finance, are equally likely to affect entrepreneurial endeavor in the economy (Kennedy, 1995). According to Rosa *et al.* (1996) there are two debates as to why economies are underdeveloped. The first debate is that people have not been socialized towards entrepreneurial attitudes, aptitudes and initiative. The second is that, the social environment is limiting the entrepreneurial drive of people. It can be said that, the failure of most industrial development would appear not to be due to personality characteristics or need for achievement. The inhibition to economic development is more likely to result from the social environment that has emerged from a country's disorderly history. Hawkes (1981) suggest that some of these constraints are born from a colonial past and the perpetuated in the authoritarian traditions of the state and the erroneous equating of entrepreneurship with narrow materialism.

Ambrose (1986) suggests that higher education institutions give the process of entrepreneurship respectability and opens the concept to many who would not consider it a career alternative. According to Rae (2006) importance of entrepreneurial learning has been seen in the increased number of studies that are now taking place. However, with regard to such relevance given to it, research that specifically addresses what methods best enable and sustain entrepreneurial learning (Cope, 2003) is still not in its best supply. In the view of Fenwick (2003) a few amounts of preliminary works have been reported on in literatures from a "business start-up" perspective.

However, it is inauspicious that most graduate from the technical institutions have negative attitude towards self-employment which is increasing graduate unemployment in the country (Wongnaa & Seyram, 2014). More than 7,000 students graduate from polytechnic in Ghana according to Denanyoh *et al.* (2015) and most of them do not have

the intention to be entrepreneurs but have developed the interest of working with the public institutions and private companies.

Over the past years several government and educational initiatives have been introduced in an attempt to reverse this lack of entrepreneurial spirit. This research examines effort to stimulate entrepreneurship through the technical education system in Ghana. It can be argued that Ghana needs more entrepreneurs and its economy needs more enterprise. To make a full contribution to economic development and job, Ghana needs more business start-ups, fewer business failures and more enterprises growing to be medium and large-sized businesses. The talents of entrepreneurs are required more than ever in today's changing world and uncertainty to bring into the system new businesses to combat the high unemployment rate in Ghana and increases economic growth of the nation.

1.4 RESEARCH AIM

The main aim of the study is to develop a conceptual framework for facilitating entrepreneurial learning in technical education in Ghana.

1.5 OBJECTIVES OF STUDY

To address the aim the study, the following objectives were achieved:

1. To identify the underpinning potential challenges confronting entrepreneurial learning;
2. To determine the relevance of entrepreneurial learning in technical institution in Ghana; and

3. To develop a framework for facilitating entrepreneurial learning in technical education in Ghana.

1.6 RESEARCH QUESTIONS

1. What are the underpinning potential challenges confronting entrepreneurial learning?
2. What is the relevance of entrepreneurial learning in technical institution in Ghana?
3. What is the framework for facilitating entrepreneurial learning in technical education in Ghana?

1.7 SCOPE OF STUDY

The study's scope was limited to technical institutions in Kumasi which is the capital city in the Ashanti region of Ghana. Kumasi metropolis is the scope of the study due to the fact that, it plays a huge role in the Ghanaian economy. Also, Kumasi is the largest city in Ghana and it is a center of many business activities in the Ashanti region. Moreover, Kumasi metropolitan was selected, because of its propinquity to the researcher which subsequently altered the financial adversities that would have come across in terms of data distribution and collection, this further made the collation of questionnaire comparably easy since the researcher did not have to travel a long distance for retrieving them. Conceptually, this research focuses on technical education in Ghana and entrepreneurial learning awareness. Also, it focuses on opportunities and challenges that account for participation in entrepreneurship among graduates in Ghana.

1.8 JUSTIFICATION OF STUDY

Wongnaa & Seyram (2014) argued that most graduate from the technical institutions have negative attitude towards self-employment which is increasing graduate unemployment in the country. More than 7,000 students graduate from polytechnic in

Ghana according to Denanyoh *et al.* (2015) and most of them do not have the intention to be entrepreneurs but have developed the interest of working with the public institutions and private companies. Over the past years several government and educational initiatives have been introduced in an attempt to reverse this lack of entrepreneurial spirit. This research examines effort to stimulate entrepreneurship in Ghana. The study would help identify the importance of entrepreneurship as a career option and also help to identify the inflection points underpinning entrepreneurship. Also, it is of the expectation that, this research would be of a help to the government in regulating its activities in the areas that will benefit citizens taking on entrepreneurship as a career. The research also attempts to identify the benefits of entrepreneurship. This is to increase the entrepreneurial spirit of graduates in venture creation which will help in the economic development of the country. Also other developing countries will find these findings beneficial in furtherance of entrepreneurial learning. Furthermore, the outcome of the research will add to knowledge and also be the bases for further research by students and researchers.

1.9 RESEARCH METHODOLOGY

Philosophically, this research leans towards the positivism paradigm, in which quantitative research will be adapted to aid data collection where by data from the field is collected by the administration of questionnaires. An extensive and elaborate literature review began the research process. Information was collected from extant thesis, journals and the internet. The findings from these sources were the foundation for the development of the structured questionnaire for the collection of primary data for the study. The data collected from the field of study was quantified and subjected to statistical analysis. The detailed methodology, statistical tool for performing the relationship, and sampling method is outlined in chapter three of the study.

1.10 RESEARCH ORGANIZATION

The research composed of five chapters, chapter one introduces the study which consisted of the research background, the statement of study problem, aim and objectives, research questions, justification of the study and scope of the study;

Chapter two provides the review of pertinent literature on the study topic whiles Chapter three deals with the methodology including the research design, research approach, population of the study, sample frame and sampling techniques. Chapter four presents the analysis and discussions of the results. Finally, chapter five provides the summary of the study, conclusions and recommendations based on the results obtained from the study.

1.11 CHAPTER SUMMARY

This chapter presented a general introduction into the study area. Background to the study and the statement of research problem has been provided. This was followed by justification to the research area. Subsequently the research aim, objectives as well as scope have been explicated. A succinct discussion has been provided for the methodology adopted. The chapter end with a presentation on how the research is organized.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter conducts a review of literature on entrepreneurial learning. The study present the underpinning potential challenges confronting entrepreneurial learning and

the relevance of entrepreneurial learning in technical education in Ghana. The chapter ends with a framework for facilitating entrepreneurial learning in technical education in Ghana.

2.2 A GENERAL OVERVIEW OF ENTREPRENEURIAL LEARNING

Professionals and business educators have evolved beyond the myth that entrepreneurs are born not made. It has become evident that entrepreneurship or some aspect of it can be taught. According to Drucker (1985) the entrepreneurial mystique?

It's not magic; it's not mysterious and has nothing to do with the genes. It's a discipline and like any discipline, it can be learned (Drucker, 1985). In the view of Gorman *et al.* (1997) entrepreneurship can be taught or least encouraged by entrepreneurship education. With the great acceptance of the opinion that entrepreneurial ventures are the key to productivity, innovations and effective competitiveness, the question to whether entrepreneurship can be taught is not applicable (Plaschka & Welsch, 1990).

Entrepreneurial learning is mostly defined as a continuous process which enables the development of necessary knowledge to be effective in starting up and managing new businesses (Corbett, 2002). When education is utilized on entrepreneurial theories, appreciation of learning and use of chances during establishing and administering businesses (Douglas & Shanley, 2000). Entrepreneurs who create businesses are also more successful and effective in starting up other businesses and managing them (Westhead & Sohl, 1998). It is of the suggestion that most of the knowledge acquired within the certain of entrepreneurship is structurally practical (Sarasvathy, 2001)

In recent times, there is now a wide acceptance that the creation of ventures brings about future prosperity of the local economy (Banfe, 1991). In this view it is important to

widen local entrepreneurial talents to create and manage new ventures. In other for this to come into reality, effective supporting structure is needed to enable local initiatives and nurture new businesses that a capable to create sustainable employment (Banfe, 1991). Furthermore, entrepreneurial perspective can be developed in individuals for the purpose of bring forth creative and new ideas in profit or non-profit enterprises (Kuratko & Hodgetts, 2004).

Recently the development and the growth in the curricula and programs devoted to new venture creation and entrepreneurship is been remarkable. According to Katz (2003) the number of universities that offer programs related to entrepreneurship has been increased. Entrepreneurship therefore is about been creative and innovative.

2.2.1 Entrepreneurship

In recent times the interest in small business and entrepreneurship has increased worldwide. This is because of the economic recession and high fluctuations suffered by many countries and also the high unemployment rates (Banfe, 1991). This situation has directed the attention of policy makers to focus on the role of an entrepreneur as a favorable solution to reduce unemployment and enhance economic growth (Banfe, 1991). Also small ventures are structured in a way that allows itself to adjust to technical change and other environmental changes. In this view a lot of countries are making new policies to support entrepreneurship and small firms. Moreover, much effort is been made to support and enhance innovative activities and capabilities (Banfe, 1991).

The role of entrepreneurs and entrepreneurship does not have an exact meaning; the definition varies among researchers. Entrepreneurs are grouped into those working in a corporate institution or individually for profit or not for profit seeking (Druker, 1985).

Entrepreneurship is the process of innovating and investing valuable resources in a venture for making profit in an ambiguous and uncertain environment (Druker, 1985). Entrepreneurship is generally the creation of new ventures (Low and McMillan, 1998). Wickham (2004) simply defined entrepreneurship as what the entrepreneurs do. He explained further that, entrepreneurship is characterized by a particular approach to wealth creation.

In the views of Wennekers & Thurik (1999) it is the manifest ability and temperament of an individual on his/her own or in teams to perceive and create new opportunities and introduces his/her idea into the market, in the face of obstacles and uncertainty. Also Stevenson & Jarillo (1990) are of the view that the process by which an individual pursue opportunities with no regards to the current resources they have in control is entrepreneurship.

Moreover entrepreneurship according to Timmons & Spinelli (2004) results in the realization, creation, enhancement and renewal of value. According to Robbins & Coulter (2005) it is the process in which individuals uses organize effort to act on opportunities to create value and grow by fulfilling needs and wants through innovating and uniqueness, regardless of the current resources in possession of an entrepreneur. It is about the creation of new ventures. But it is much more than just a set of skills for starting a business; it is a mindset, an approach to the world (Allen, 2003).

Leibenstein (1968) characterized entrepreneur as one who connects different markets, answers market deficiencies by supplying, he also marshals all resources needed to produce and market a product. Also, they perceive profit opportunities and make provisions for unsatisfied needs or to do more efficiently what has being done already

and also attempt uncertain investments (Kirzner, 1985). Kao (1991) is of the view that entrepreneurs are catalyst for economic growth and they do purposeful researching, carefully plan and make sound judgment when carrying out entrepreneurial processes.

He also stated that entrepreneurs are unique by being positive and committed. Entrepreneurs work creatively to produce new resources or provide old ones with new capacity, all of this with the aim of creating wealth (Kao, 1991).

Entrepreneurs are individuals from different backgrounds who develop all kinds of businesses. They are people from all kinds of ages, some own big businesses while others own tiny craft shops (Green, 2006). They identify market needs and supply a product or a service to meet these needs (Green, 2006).

Entrepreneurship needs the engagement of passion and energy in the creation and development of ideas and creative solutions (Kuratko & Hodgetts, 2004). Willingness to take risk and having the vision to recognize opportunities where others see confusion and chaos are relevant components in entrepreneurial development. Entrepreneurship is beyond the mere creation of ventures even though it is a relevant aspect. The ability to recognize opportunities, taking risks beyond security and possessing the ability to push an idea through to reality combine into a perspective that pervades entrepreneurs (Kuratko & Hodgetts, 2004).

2.3 THE UNDERPINNING POTENTIAL CHALLENGES CONFRONTING ENTREPRENEURIAL LEARNING

Entrepreneurs encounter many challenges in their initial new business start-ups. Mostly constructing an initial resource base is a major challenge faced by these entrepreneurs. They face a lot of turns and bumps in conceiving their ideas into reality (Katz & Gartner, 1988). Because their new businesses lack administrative history and cannot point out its

reputation of performance, they find it difficult to obtain loyal customers. Moreover strategic resource decision is made using only current available information's since they lack shared experiences (McGrath, 1999).

Moreover, according to West & DeCastro (1999) the choice of resources have a negative consequence if wrong resources are acquired and does not fit the opportunity, or waste other productive resources. In addition, human failings, ineffective management, inability to attract and maintain qualified personnel and undercapitalization contributes to collapse of many new ventures (West & DeCastro, 1999). Therefore, for new venture in the long run to make wealth there must be innovative and strategic combinations of resources in the early stage (West & DeCastro, 1999).

Also, the creations of entrepreneurial start-up ventures are the most appropriate and effective way to relocate labor and capital in an economy. However, according to Kaser (1995) a combination of many factors has held back entrepreneurial development which includes: high interest rates on loans, considerable administration discretion and corruption in different government offices, lack of management

expertise and skills, restrictive taxation and inflation.

In addition the environment has a great impact on entrepreneurial start-ups.

Environmental factors influencing entrepreneurial start-up includes: environmental and political environment, family and support system, suppliers, customers, financing sources, local community's employees and government agencies (Bloogood *et al.*, 1995).

Furthermore, today's legal agreements may become heavily taxed or illegal the next day which makes entrepreneurial start-ups or private economic activities very challenging.

What transactions are legal and all of this precariousness about ownership gives a heavy burden on entrepreneurial development. Below are the summarized challenges confronting entrepreneurial learning:

2.3.1 Assembling resources

Entrepreneurs face decisions in the early stage of business creation about the timing and types of resources to bring into their new business. Entrepreneurs decisions made on resources are very relevant and are mostly base on their expectation of the firm's future (Glade, 1967). The choices made by entrepreneurs to put more emphasizes on one resource over another is usually a cost-time trade off. Mostly, if a resource is neither a secret ingredient or of relevance which is critical to the success of a production, the choice between making or buying the resource depends on its availability in the market place. The resource is more likely to be a buy decision if producing it averts key human resources from relevant tasks. Also it becomes a buy decision when getting to the market fast affirms the cost of acquisition. Making such decisions on assembling the necessary resource effectively and at a minimum cost becomes a great challenge in new business start-ups (Glade, 1967).

2.3.2 Attraction of Resources

Bringing resources into a fledging business is a challenge greatly faced by emerging entrepreneurs. Due to the fact that these businesses lack administrative history and cannot point out its reputation of performance, potential resource providers have a heightened perception of risk when engaged with such ventures (Gartner *et al.*, 1992). Therefore attracting resources from by emerging entrepreneurs becomes a great challenge and in order to encourage resource providers to commit resources to the business, they sometimes have to make a fancy facility to create an image of success (Gartner *et al.*, 1992). In this case some resources have to be leveraged in order to obtain

others. This becomes a greater challenge since it increases the cost of business start-ups financially and socially (Dees & Starr, 1992).

2.3.3 Combination of Resources

Decisions that are made on inputs or resources combination when a new business is setup directly affects further the development of a resource base. This is a major challenge since wrong combination can affect the whole productive process (Shane & Venkataraman, 2000). In emerging ventures entrepreneurs bring in their different beliefs about capability for them to combine these resources and transform them into something valuable. Due to differences in people's educational background, initial capital, individual experiences or the cognitive variability of each entrepreneur their ability to combine information and concepts into new ideas differs (Shane & Venkataraman, 2000).

2.3.4 Personal Discretion

According to Olson (1992) political and administrative discretion affects entrepreneurial development. Entrepreneurial activities and investment in new business faces many challenges due to the poor coordination of the governments and increased amount of discretion still available to political leaders. Mostly, payments are extorted from entrepreneurs by government employees using unclear legal statements. This is sometimes related to poor payments of government workers and doing this has become a source of income to them (Olson, 1992). Also governmental agencies abuse their power on new entrepreneurial business by imposing their own discretion on businesses. They make licensing or registration of new business complex so as to make it easier for them to extort money from potential entrepreneurs. This makes planning by entrepreneurs very difficult and reduces individual property rights (Olson, 1992).

2.3.5 Access to Financial Infrastructure and Corruption of the Economy New entrepreneurial development faces difficulties when getting access to initial financial capital for setting up ventures. They lack the legitimacy or sometimes the necessary backing to get access to reliable capital. This is due to the inadequate legal framework which has resulted in the underdevelopment of the financial markets which are known to be necessary and very important preconditions for the success of entrepreneurial development (Veubas & Marzeeva, 1996). For entrepreneurs to obtain access to financial assistance they sometimes turn to informal or private source of credit which is given at a higher interest rate (Veubas & Marzeeva, 1996). Moreover, entrepreneurs have to make payments to underground forces or governmental agencies to get a pass to enter the market so as to stay in business. Entrepreneurial development is a great challenge to emerging entrepreneurs. The cost of setting up a venture is very high and sometimes to hope for entrepreneurial development becomes impossible (Merrifield, 1991).

2.4 THE RELEVANCE OF ENTREPRENEURIAL LEARNING IN TECHNICAL INSTITUTION IN GHANA

In recent times entrepreneurship has gain much recognition worldwide. There are a lot of economic, educational and social benefits derived from entrepreneurial development. Educational programs in entrepreneurship in universities and technical institutions have increased rapidly in many countries due to its great benefits. Whereas in past years entrepreneurship education in schools where very few, today entrepreneurial courses offered in schools has increased (Alberta *et al.*, 2000).

Entrepreneurship education approach in educational institutions varies from offering integrated curricula including marketing, competitive analysis and finance to single offered courses in business plan preparation and business development.

Entrepreneurship is now a major and a specialized program for MBA students, undergraduates, as well as for students in engineering and medicine.

Entrepreneurship education is now popular for the following reasons according to Alberta *et al.* (2000):

- Entrepreneurial learning is an enriched integrative educational experience that enables students to integrate many business disciplines.
- Also it raises their employment potentials of graduates in job markets and also encourages the creation of ventures by graduates.
- Moreover it enables the transfer of technology from educational institutions to the market.
- Entrepreneurial learning in schools attract funds from well establish entrepreneurs as they see it as a good approach applied to the study of the economy and business (Alberta *et al.*, 2000).

There have been a lot of arguments about entrepreneurship been the most influential economic force that the world has ever experienced. The evolution of entrepreneurial development has been a great impact in the business world (Reynolds *et al.*, 1999).

According to Elkington, (1999) entrepreneurial development enhances sustainable development. Also Hall *et al.* (2010) acknowledged that entrepreneurial development promotes sustainable business practices.

Moreover, numerous firms are created through entrepreneurial development which makes a significant contribution to the market economy and defines the market economies. Innovations through entrepreneurial development lead to technological

advancement and productivity growth of the nation. Entrepreneurship is about change and competition, is about future prospects and not the inheritance of the past (Kuratko & Hodgetts, 2004).

Furthermore, the establishment of entrepreneurial firms enables a lot of people to enter the economic mainstream. It enables individuals including men, women, unemployed graduates, immigrants and minorities to access the pursuit of economic success (Small Business Administration, 1998).

In the view of Hebert and Link (1988) the benefits of entrepreneurial development is not only to the entrepreneurs to municipality or country as a whole. Below is an outline of benefits derived from entrepreneurial development according to Hebert and Link (1988).

1. Provides self-employment for many including unemployed graduates and offers more job satisfaction;
2. Provides employment for others;
3. Income generation and increased economic growth;
4. Creation of many firms in regions and rural areas for economic change;
5. It encourages production of local materials into finished goods for domestic consumption and export;
6. It creates competitions which ensures the production of quality goods;
7. There is an increased availability of goods and services;
8. Creation of new markets;
9. Promotes the utilization of modern technology which improves productivity in small-scale manufacturing;

10. It encourages more studies, researches and enhances the development of modern equipment's and machines;
11. Emancipated from depending on others for jobs;
12. Enables the accomplishment of greater things.

With reference to the above mentioned benefits of entrepreneurship stated by Hebert and link, it can be argued that entrepreneurial learning in technical education will provide the graduates with the advantage of becoming self-employed, been freed from depending on others for job offers, reduce unemployment in the country, be able to acquire enough skills for the job market and have regular income for a living.

According to Alberta *et al.* (2000) entrepreneurial learning encourages the creation of new ventures. Graduates who are entrepreneurially inclined are more likely to start new ventures as compared to non-entrepreneurship graduates. Entrepreneurial learning has a great impact on graduate's income and also contributes significantly to the growth of many firms, especially small firms (Alberta *et al.*, 2000).

2.5 FRAMEWORK FOR ENTREPRENEURIAL LEARNING IN TECHNICAL EDUCATION

According to Shane & Venkataraman (2000) entrepreneurship is a dynamic form of economic and social behavior whereby individuals exploit available environmental resources and opportunities. In the view of Gibb (1993) entrepreneurship is a process whereby opportunities are identified to create or release something of value. Hence, the fundamental element is that, the abilities needed to develop entrepreneurially are studied.

In recent time's entrepreneurship and enterprise education has increased considerably. There is tension between the theory teaching of entrepreneurship and the practice of

entrepreneurial behaviors in its natural occurring states (Gorman *et al.*, 1997). According to Deakins & Freel (1998) entrepreneurial behaviors are learned through discovery and experience. Moreover, many writers have recommended the informative viewpoint of learning entrepreneurship (Deakins, 1996; Gibb Dyer, 1994; Steyaert & Bouwen, 1997). To understand how entrepreneurship is learned, knowing from experiences of individual learning process would be helpful and know the categories of the practicality of the effects of learning entrepreneurship (Deakins & Freel, 1998).

By learning the procedures via practicing have emerged entrepreneurial attitudes, behaviors as well as means of operations, perhaps the prospects to comprehend and amend the manner that people learn to behave entrepreneurially. This will give a contextual knowledge and comprehending the structure of leaning entrepreneurship and successfully can be used in designing and implementing educational programs. Exploring how individuals learn to achieve entrepreneurial success has therefore become every relevant.

2.5.1 Model for Entrepreneurial Learning

According to Gartner (2001) individuals experience series of life stages as they develop their careers and this is grouped into five stages. The first life stage is early life which includes individual's education and family background. The second life stage is early career including first jobs, technical or professional learning.

Subsequence to these stages, the rest fall under individual's procedures of entrepreneurship in participating in distinct ventures. The third stage involves engagement and entering a venture. The fourth stage involves growing the venture and finally emerging and developing from the enterprise by vending spotting novel opportunities (Gartner, 2001).

Below are summarized major themes that plays significant role, incorporate and give meaning to entrepreneurial learning:

2.5.1.1 Personal Values, Motivation and Goal-setting

Personal values, goal-setting and motivation are of much relevance in each individuals learning. Motivational forces and strong values lead individuals to set for themselves ambitious goals. Individuals must have a clarity of what is of relevance to them and why. Goal setting and personal motivation plays are very relevant in entrepreneurial learning. In the early stage of entrepreneurial learning, personal value and motivators such as determination and achievement orientation must be formed since they play a major role in formulating individuals personal goals (McClelland, 1961).

Also, other characteristics including the alertness of conception and one's readiness to take sound but tough decision must emerge strongly. Moreover, the drive for ownership, the need for constant challenge and being opportunistic must strongly emerge in the early life stage of entrepreneurial learning. Also individuals must have value and importance for other people (Bird, 1988). Just as the need for achievement and powerful force are relevant, this seems to be intrinsically in connection with the belief that individuals achieves what they set out to (Bird, 1988).

2.5.1.2 Self-efficiency

The ability to create new ventures and cope successfully with the environment despite the potential difficulties is referred to as self-efficacy (Krueger & Brazeal, 1994). Self-efficacy is a representation of personal judgment about how entrepreneurs strongly believe that they can master the cognitive necessary and behavioral facilities to deal efficiently with an entrepreneurial venture and the environment. In the functioning of

any entrepreneur self-efficacy is an essential cognitive variable (Krueger & Jansen, 1994). In entrepreneurial development ambitious goals must be set by individuals and believe in their ability to achieve these goals. They must not consider the possibility of not been able to accomplish these goals. They must always have a higher level of believing in one's self and abilities.

2.5.1.3 Knowing Individual Capability

In the early life stage of an entrepreneur career, knowledge and skills which are central to his/her career must be developed (Gartner, 2001). An entrepreneurial capability varies in nature, and depends on the role of individual which includes personnel development, corporate growth, improving business performance and selling. These capabilities must be built on by individuals in the entrepreneurial learning and as self-awareness grows and careers progresses, they must also appreciate their limitations and weaknesses (Gartner, 2001). Also it is evident that, individuals must accept the growth and functions to operate with others of corresponding capabilities (Gartner, 2001).

2.5.1.4 Personal Theory

As career develops individuals must set principles which in their view they find it very effective in the accomplishment of their set goals. The process of organizing and using meanings that is derive from learning episodes to take decisions by individuals is refers to personal theory (Gartner, 2001). It is evident that developing and the organization of personal theory in entrepreneurial learning are very relevant, but the exploration of this concept is limited in many researches. Getting the understanding of personal theory as a basis for making decisions and utilizing it to achieve results is closely related and offers relevant insights into higher performance (Gartner, 2001).

Below are the four main groups of personal theories:

- i. Visioning, making decisions and planning
- ii. Developing the venture by being close to the market
- iii. Making a balance between control and letting go
- iv. Managing through people.

2.5.1.5 Active Learning

In the development of entrepreneurial capacity one's ability to learn is distinctly essential. Individuals must learn quickly, actively and broadly. The speed and application of learning is relevant in entrepreneurial learning (Rae & Carswell, 2000). Learning must be valued by individuals and they must learn from numerous sources, such as by direct experience from experiments, success and failures. Also, individuals must actively learn for them to know the entire entrepreneurial processes (Gartner, 2001). Information on entrepreneurial process can be acquired from three major sources. Firstly, information on entrepreneurial prospect is acquired by directly observing practicing entrepreneurs. Experiences of entrepreneurs can be related and this information can be gathered by interviewing, the use of case study or surveys. Through the analysis of their experiences insights into the personalities, characteristics and traits of entrepreneurs can be known which will help discover commonalities of these entrepreneurs to explain the entrepreneurial process (Gartner, 2001).

Presentations and speeches by successful entrepreneurs is the second source of information for entrepreneurial learning.

Lastly, the third source of information for entrepreneurial learning can be acquired in research and popular publications (Gartner, 2001). Below are among relevant publications information on entrepreneurial process can be acquired.

- Academic journals on entrepreneurship;
- Textbooks;
- Biographies of entrepreneurs;
- Compendiums about entrepreneurs.

All the above sources of information provide bases for entrepreneurial learning (Gartner, 2001).

2.5.1.6 Relationships/Social Learning

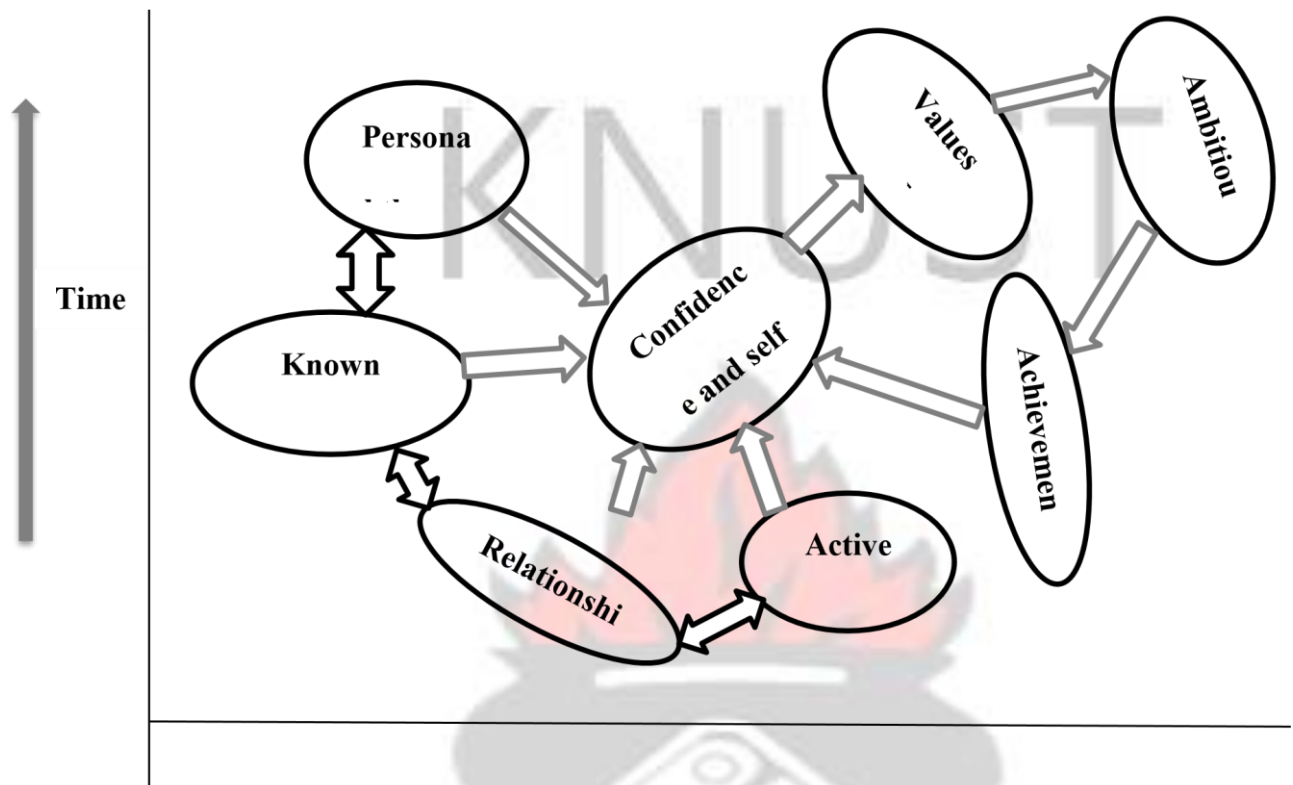
In entrepreneurial learning, learning and gaining knowledge from others is very influential, including mentors, other entrepreneurs, employees, academic teachers, parents and powerful business owners (Rae & Carswell, 2000). The life stories of entrepreneurs enhances the understanding of entrepreneurship as an evolving and narrative based living theory, composing of the collection of wisdom and experiences of successful entrepreneurs. Entrepreneurial learning is therefore continual shared progression of ones learning from others and their own experiences, development of their own personal theories and successfully utilized such concepts to enable people to assimilate and acquire knowledge (Rae & Carswell, 2000).

Also creating relationships through networking is vital in entrepreneurial setup. Networking with others help sustain new venture creation in an uncertain environment. Networking means knowing the right people and making connections for an accomplishment (Luthans *et al.*, 2000). Networking establishes long-term relationships within individuals which help to obtain and sustain a competitive advantage.

Individuals learn entrepreneurially concentrating and growing the assets that the above themes expresses. The entrepreneurial learning model can be used by individuals to start

developing their own maps of learning and capabilities. Also it will be of help for the development of individual self-belief and confidence. Moreover it will help individuals to reflect on how far they already utilize entrepreneurial behaviors and also having awareness of and developing their personal theories (Rae & Carswell, 2000). Furthermore, according to Hansemark (1998) to it is highly of significance displaying personal values, self-efficacy, goal setting and achievement at a young age. The learning processes are relevant for a successful entrepreneurial establishment. Supporting business knowledge with these learning processes of personal development enhances the success of entrepreneurial development (Caccioppe, 1998). Figure 2.1 shows a conceptual framework of entrepreneurial learning proposed, mapping the themes and its inter-relatedness in the setting of developing entrepreneurial capabilities in time.





Development of Entrepreneurial Capability

Figure 2.1 Framework for Entrepreneurial Learning (Rae and Carswell, 2000)

Also to know the direct link between entrepreneur's career experiences and the development of entrepreneurial knowledge, there is also a need for a better understanding of the factors that influence entrepreneur's predominant mode of transforming experiences into knowledge. This is illustrated in Fig 2.2 below.

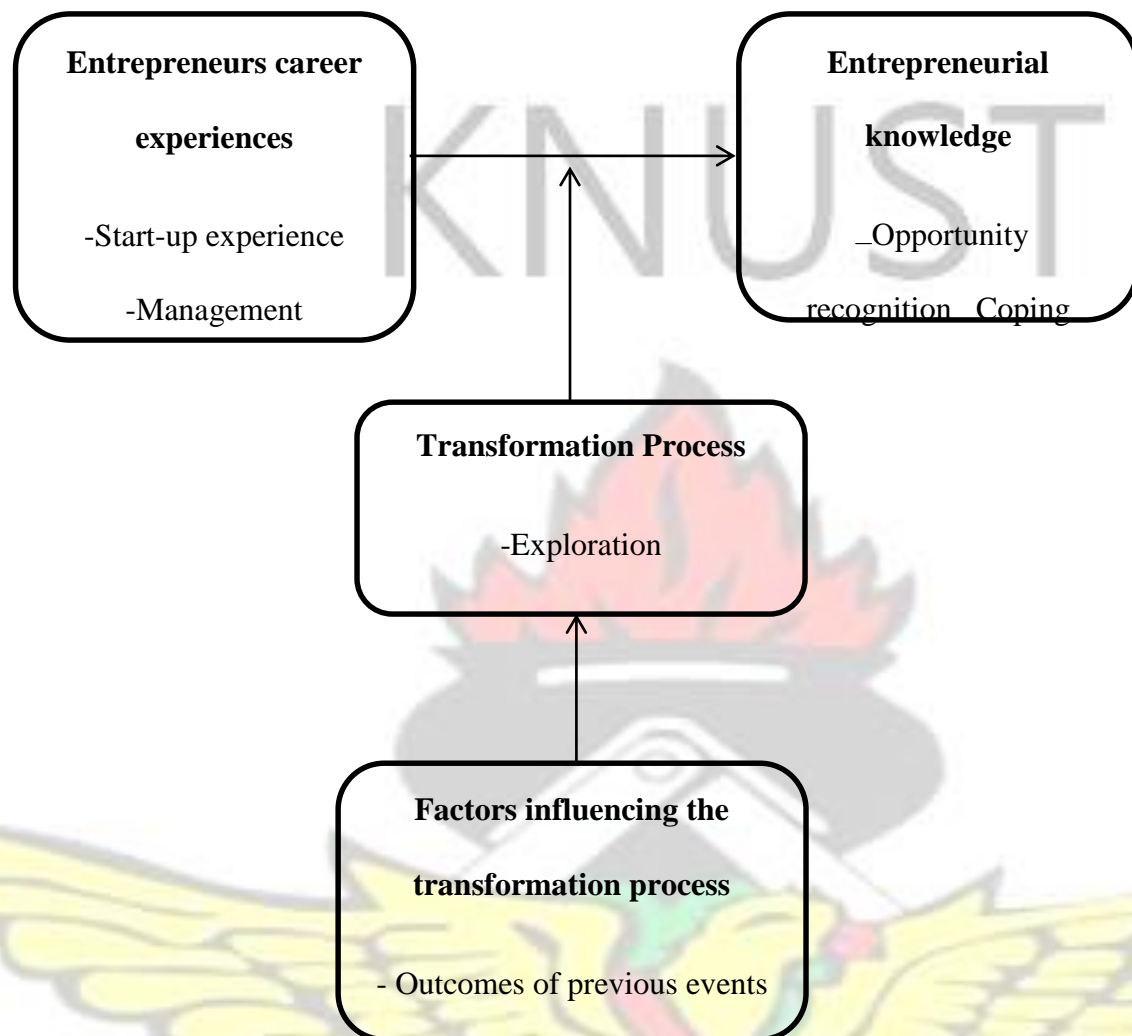


Figure 2.2 A Conceptual Framework of Entrepreneurial Learning as an Experiential Process (Politis, 2005)

2.5.2 Entrepreneurial Knowledge

The application of learning to the concept of entrepreneurship concerns how to recognize and act on opportunities and also overcoming traditional obstacles during the organization and management of a new business (handling the liabilities of newness).

In the view of Shane (2003) entrepreneurs engage in both activities simultaneously in reality, as they are often engaged in various concurrent projects in many stages of development.

2.5.2.1 Recognition of Opportunities

The recognition and development of business opportunity is a very relevant ability that entrepreneurs must possess in order to be successful in entrepreneurial development.

Opportunity recognition has become a major issue to be investigated and explained in research and literature on entrepreneurship (Shane & Venkataraman, 2000). According to Shepherd *et al.* (2000) many scholars are of the view that experienced entrepreneurs acquire useful knowledge on relevant contacts, suppliers, reliable, feasible markets, availability of product, and competitive resources and response, which enhance them to spot and seize entrepreneurial opportunities. Moreover in the view of McGrath (1999) experienced entrepreneurs are most likely to engage in ventures as a means of getting access to a wider scope of opportunities not been recognized.

Considering the increase in effectiveness in recognizing opportunities in entrepreneurial development, it raises the question of why others cannot recognize opportunities and others possess the ability to discover them. According to Ardichvili *et al.* (2003) research has shown that two factors influence and enhance the probability for an individual to discover entrepreneurial opportunities. Firstly is having prior information's which are essential to recognize opportunities. Secondly is the cognitive property required to value them. Having prior information's essential to recognize opportunities have to do with the total stock of individuals' information which influences their ability to identify a particular opportunity (Shane & Venkataraman, 2000). The cognitive property on the other hand required to value them refers to the ability of individuals to find new means-ends relationships in response to a specific change.

Although the two factors give a distinct description, they are both essential to entrepreneurial opportunity recognition and to act on it. Meaning that though individuals may have the prior information essential to create or find opportunities, they could actually fail in doing so because of their inability to find new means-ends relationships (Busenitz & Barney, 1997). Therefore an individual's ability to bring forth new ideas

from existing information and concepts plays a major role entrepreneurial learning process.

2.5.2.2 Coping with the Liabilities of Newness

According to Shepherd *et al.* (2000) the ability to cope with liabilities of newness is important to the success of an entrepreneurial development. Timmons (1999) asserted to the fact that there is high mortality rate of newly founded ventures. Sullivan *et al.* (1999) added that the reasons for the failure of these ventures are insufficiency marketing and inadequate funding's. Also there is hesitation of potential customers to do business with newly founded ventures due to their insufficient and short operating history.

Moreover, limited cash flow can reduce new firms ability to respond adequately to external threats. Coping with liabilities of newness involves individual's ability to lessen uncertainties and obstacles when creating new businesses. These includes finding initial business capital, adopting to political, economic and environmental changes, possessing access to business and social networks, etc. (Shepherd *et al.*, 2000). In entrepreneurial development individuals should continually earn the trust and the recognition that they are valid business personals by providing goods and services to customers on time.

2.5.3 Entrepreneurs career experiences

According to Sarasvathy (2001) in studying entrepreneurial learning, prior start-up experience is a measure widely used. It gives implicit knowledge which enhances entrepreneurial opportunity decision making under time pressure and uncertainty. Shane (2003) state that people having numerous start-up experiences sees opportunities more desirable than others and hence most likely to exploit it. Also, previous start-up

experience gives knowledge which enables entrepreneurs to overcome liabilities of newness faced by new business creation.

Moreover, the amount of managerial experience enhances the survival rates of ventures, hence reduces the likelihood of failure of new business. According to Delmar & Davidsson (2000) prior management experience increase the intentions of individuals to create new business, therefore facilitates the process of opportunity recognition. Managerial experience provides individual with information on numerous aspects of business which are of relevance in recognizing and acting on entrepreneurial opportunities which includes sales, marketing and finance. Also it gives training of the skills required to cope with the liabilities of newness which includes problem solving, negotiating, organizing, selling and planning (Shepherd *et al.*, 2000). Furthermore, in the view of Shane (2003) industry-specific experiences have a great influence on individual's development of entrepreneurial knowledge. An individual having prior industry-specific experience as a supplier or customer in an industry mostly understands how to meet the demand conditions of the marketplace, since industry experience gives information which outsiders cannot gather.

2.5.4 Revolutionary Route of Entrepreneurial Learning

Entrepreneurial learning is perceived to be a practical procedure in which entrepreneur's personal experiences are revolved into knowledge and awareness, that can be used as a direction in choosing novel skills. When entrepreneurial learning is being conducted, it is necessary to know that career experiences of entrepreneurs do not directly leads to the acquirement of entrepreneurial knowledge (Kolb, 1984). Alternatively, entrepreneurs acquiring new experiences and developing new knowledge is rather described as the process in which experiences are been transformed into acquired knowledge. The modes in which

entrepreneurs transform their experiences into knowledge in the process of entrepreneurial learning is essential. There are two modes and is dependent on how an entrepreneur transforms his or her experiences into knowledge. This means that entrepreneurs when making decisions may rely on one of the two strategies which are exploration and exploitation (Minniti & Bygrave, 2001).

In exploitation according to Holmqvist (2000) an entrepreneur chooses actions closely related or replicates the ones they have already taken, hence exploiting their preexisting knowledge. This implies that entrepreneurs exploit what is already known and learn from experience by exploitation of old certainties. Exploitation is about the creation of reliability in experiences, which is of the meaning that a stable behavior is the dominant state of the learner. Exploration is when an entrepreneur learns from his or her experience by exploring new possibilities. Exploration is about the creation of variety in an experience which results in the change in behaviors becoming the dominant state of the learner (Holmqvist, 2000). Both ways of transformation of experiences into knowledge are essential in sustaining learning (March, 1991)

2.5.5 Factors Influencing the Transformation Process of Entrepreneurial Learning

The outcome of previous events and career orientation of an entrepreneur are relevant aspects to be considered in order to better understand an entrepreneur's predominant mode of transforming experiences into entrepreneurial knowledge (Minniti & Bygrave, 2001).

2.5.5.1 Outcome of Previous Entrepreneurial Events

The outcome of previous events of an entrepreneur has an impact on his or her predominant mode of transforming experiences into knowledge. The outcome of the event can turn out to be a success or a failure. A successful entrepreneur tends to take

actions that are closely related to the ones they have already taken, hence exploiting his or her preexisting knowledge. Also successful experience from previous business creates a perceived path for the success of new ventures (Minniti & Bygrave, 2001).

Moreover, according to McGrath (1999) the experience of an entrepreneur does not originate from only prior success, but also from prior failures. She also stated that a number of successful entrepreneurs give recognition to their learning from past failures as an important aspect of their experience base. Failure is a relevant requirement for learning since it gives the opportunity to discover why it has occurred. It gives opportunity to entrepreneurs in discovering uncertainties that previously were unpredictable. This means that analysis of failure serves as a powerful mechanism in resolving uncertainties, increases variety and expands the search of new opportunities (McGrath, 1999). Failure stimulates an entrepreneur to explore new actions which are different from the ones he or she has already taken. This escalates entrepreneurs' search for variance by exploration of new possibility as a coping strategy in reducing uncertainty (Minniti & Bygrave, 2001).

It can therefore be deduced that previous entrepreneurial event of entrepreneurs are of relation to his or her mode of transforming experiences into knowledge. Also failures stimulates entrepreneurs' explorative mode of transforming experiences into knowledge while success stimulates entrepreneurs' exploitative mode of transforming experiences into knowledge.

2.5.5.2 Entrepreneur Career Orientation

According to Larsson *et al.* (2001) different concepts on career are developed by individuals which have an influence on their career choice and work experiences.

Entrepreneurs differ in terms of characteristics and career motivations. Therefore entrepreneurs having diverse career motivations seek different kinds of learning situations and entrepreneurial events (Minniti & Bygrave, 2001). Brousseau *et al.* (1996) developed four career concepts held by individuals in terms of direction and frequency of career movement across and within diverse work overtime. The four career distinctive concepts are spiral, linear, transitory and expert. The diverse set of motives underlining each career concepts is the bases for the career preferences.

According to Katz (1994) entrepreneurs having linear career orientation are motivated by opportunities to undertake relevant things. This implies that power and achievements is the key motives to their choice of career. Subsequently the prospect of achieving satisfaction drives the entrepreneur and not personal wealth, even though status and wealth are significant measures of how well one is doing. Entrepreneurs with ideal career orientation on the other hand, have long life commitment to a specific career, in which they endeavors to further develop and refine his or her knowledge in that specialty (Molander, 1993). Entrepreneurs with expert and linear career orientation is of the expectation of been less incline to the exploration of new domains and possibilities since doing that may divert them from their achievements or specialty. Rather, they are of the expectation of exploiting preexisting knowledge to refine their knowledge to become experts in their field of work (Molander, 1993).

According to (Larsson *et al.*, 2001) creativity and personal development are the key motives of career choice by entrepreneurs with spiral career orientation. They explore new activities in relation to previous ones. Entrepreneurs with transitory career orientation changes jobs and organizations frequently in which independence and variety are the key motives of career choice (Brousseau *et al.*, 1996). Entrepreneurs with

spiral and transitory career orientation favor new entrepreneurial set-ups to be able to learn something new and search for new challenges (MacMillan, 1999).

Entrepreneurial learning in technical education in Ghana need to make maximum use of the learning processes. This will help enhance the entrepreneurial knowledge of students to be creative and innovative. Also it will increase their interest and chances of forming their own businesses after graduation and exceling in it. Moreover, income generation and increased economic growth will be enhanced.

According to Sullivan (2000) formal education in entrepreneurship does have a direct and strong impact on students instead focuses should be put on developing creativity thinking and reflection among individuals. This will have a great influence on individual's motivation and his/her ability to be entrepreneurially inclined throughout his/her professional lives (Sullivan, 2000). Johannisson & Madsen (1997) stated that entrepreneurship education must be incorporated at the early stages in schools. Also entrepreneurship educators should possess the same innovative drives that are being expected from their students.

In conclusion it is of the suggestion that attention must be directed towards issues on how entrepreneurs succeed in their careers. Also policies aiming to stimulate students to undertake entrepreneurial developments must focus on efforts to present entrepreneurship more attractively to students as a potential career choice.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The chapter discusses the methodology use in conducting the study. It addresses the approach to the research, strategies and design. It further deals with the research population, sampling technique, sample size, data collection instruments as well as the statistical tools used for the analysis for the purpose of addressing the key issues raised by the research aim and objectives. In this chapter, the study ponders on the methods of research with the viewpoint of determine the optimal methodology to solve the raised queries. In summary, this chapter seeks to address the entire approach adopted to address the research aim, objectives and questions.

3.2 PHILOSOPHICAL POINT FOR RESEARCH

There are two main philosophical positions of social research, namely ontology and epistemology (Bryman, 2004). Ontology regards the researcher's opinions concerning the global community and what could be identified from it. Ontology comprises two extreme positions namely: relativist and realist positions (Fitzgerald and Howcroft, 1998). The viewpoint of the realist is explained as the tangible and pre-existing hard structures constitutes the external world and independently exist of people's abilities in acquiring knowledge. The position of the realist is experiential and disregards the nonfigurative. The relativist stance is explained as attaining several occurrences of realities as independent psychological fabrications. In that, the conception of reality is geared towards via an environmentally altering conditions and changes per the culture and etymology. Theories of truth or falsehood, goodness or badness and right or wrong is subject to change from situations and cultures and are not absolute (Fitzgerald and

Howcroft, 1998). The philosophy underpinning this research at the ontology level is the realist position. This is because the entrepreneurial learning in technical education in Ghana exists as external facts that are beyond the reach and influence of the researcher. Entrepreneurial learning is objective realities and not constructions of the researcher.

On the other hand, Bryman (2004) suggest that, Epistemology as the foundation of knowledge that can be perceived by learning and knowing of the social world whiles focusing on its respective questions. The acknowledgement of knowledge in a discipline is Epistemology. Argument of this theme by writers, linger on the three prime matters. Foremost, the relation between the researcher and the researched;

Next, truth concepts; and lastly considers the way of attaining knowledge (Bryman, 2004). The emphasizing distinction among these authors arguments hovers on the theories of scientific enquiries and its composition. Epistemological comprises two extreme positions namely: positivism and interpretivism.

The positivist position suggests the use of natural science procedures to learn social realities and yonder. Emanating from the researcher, objective stance of neutral perception is realized (Bryman, 2004; Fitzgerald and Howcroft, 1998). However, the stance of interpretivist epistemology contrasts to that of the positivist. It focuses more relevance on the practicality of the content and hence promotes global truth. From the researcher viewpoint, comprehending and interpretations are essential. For the interpretivist stance, a casual neural position is not regarded (Bryman, 2004; Fitzgerald and Howcroft, 1998). Thus the researcher is interested in the position of the research and the norms and beliefs of the researcher emerging the foundation of the outcome interpretations. This research follows positivist's position. From the

gathering of certified facts, scientific knowledge is established (Bryman, 1992).

3.3 RESEARCH STRATEGY

Research strategy is defined by Naoum (1998) as the enquiry of research objectives. Quantitative and qualitative are the commonly research strategy classification. The choice of adapting a particular strategy depends on the information available for the study and the study's purpose. Qualitative research derives data through interviews, direct observations of behaviors or written opinions. Sources of data may also include events, environments and written descriptions of people, (Myers, 2013). Quantitative research uses measurement and quantification to collect and analysis data (Bryman, 2004). It is positivism in particular and incorporates natural science norms and practices. Surveys, questionnaires and experiments are utilized in gathering data (Myers, 2013). According to Oppenheim (2003) questionnaire survey ensures consistency in observations and enhances replication due to its sampling techniques and intrinsic standardized measurement. Quantitative research strategy was adopted for the study, because it allows statistical analysis of data.

3.4 RESEARCH DESIGN

Research design in the view of Adams & Schvaneveldt (1985) is a collection of guides or rules or data collection. It serves to “strategize, prepare and perform”. Research design gives directions from the underlying philosophical assumptions to the design of the research and data collection. It serves as the master plan of a study and gives directions on how to conduct the research. Research design shows how the major parts of a research work together in addressing the research questions raised in the study. It optimizes data validity of a research problem and ensures that evidence gained enables the properly answering of research problem unambiguously (Adams & Schvaneveldt, 1985). Descriptive, exploratory and casual research designs are the three main research

design used in a research process. Exploratory research is mainly discovering ideas and insight. Descriptive research describes population with respect to relevant variables while casual research establishes cause-and-effect relationship of variables.

A sample survey was used for the descriptive research design. Assessments enhance reliable observations and improve replications due to inherent standardization of measurements and sampling methods. Allowing numerical evaluation of data and representation to a wider populace (Oppenhiem, 2003).

3.5 POPULATION FOR STUDY

Population of a study is very vital in every research and it is the particular groups of interest in the research. The population of a study involves members of a defined group of people, places, events or objects relevant to the study. The target population is the whole collection of respondents which meets the specified set of criteria (Burns and Groove, 1987). In this study its target population is successful and practicing entrepreneurs in Kumasi metropolis in the Ashanti region of Ghana. Kumasi was chosen because it is the central part of many business activities in the Ashanti region which makes it a more reliable source of gathering information.

3.6 SAMPLING TECHNIQUES AND SIZE

Sampling means to select a subsection of a population to represent the whole target population of a study. Sampling provides information on the whole population in regard of the study. The sampled size exhibits similar qualities of the whole population. Probability sampling and non-probability sampling are the two main sampling methods. Non-probability samples are used to generate ideas while probability samples are used

to generalize findings. Snowball, judgmental, convenience and quota sampling are the four main types of non-probability sampling.

Purposive sampling is a probability sampling method (Tongco, 2007). This research adopted snowball sampling technique which is a non-probability sampling method. Using snowball sampling technique the researcher identified two known practicing entrepreneurs and was directed by these respondents to other successful and practicing entrepreneurs in the Kumasi metropolis. The researcher was directed by each respondent to another and a total of 55 respondents were reached constituting the sample size. Out of the 55 questionnaires distributed. A total of forty-five (45) respondent was obtained during the gathering of information from practicing entrepreneurs in Kumasi metropolis.

3.7 DATA COLLECTION

Data collection is a systematic way to gather important information purposely for answering questions raised in the study. The gathering of data for the study was collected between 6th and 9th of July, 2015 with the aid of structured questionnaires. The researcher contacted the respondents personally. The questionnaires were answered in both the absence and presents of the researcher. Respondents were given detailed information of the questionnaire before their consent in participating in answering the questionnaire. Out of 55 questionnaires distributed, 45 were gathered in all due to the fact that some respondents failed in presenting the distributed questionnaire to the researcher. This gave a response rate of 81.82% which is positive and data collection was mostly between the hours of 10.00a.m and 4p.m during the time frame of data collection.

3.8 SOURCES OF DATA

Literature review and field survey were the approach used to gather data for this study. The literature gave a secondary data while the field survey was used to gather primary data. Data collected from the literature review was used to develop structured questionnaire. This secondary data were obtained from literature reviews from journals, published works of interest and articles. The structured questionnaires developed from the literature review were used to gather primary data for analysis using field survey.

3.9 RESEARCH INSTRUMENT

3.9.1 Questionnaire Design

Structured questionnaires were the instrument used to gather data from 45 respondents. This will help generalize findings as a representation of the entire target population. Questionnaires are formalized set of questions used to obtain information from respondents (Frazer and Lawley, 2000). Telephone questionnaire, mail questionnaire, internet questionnaire and personally administered questionnaire are the methods of administering questionnaires. According to Oppenheim (1996) questions in questionnaires may be close-ended, open-ended or a combination of the two based on expected outcomes. Close-ended questionnaires were administered personally to respondents to avoid any ambiguity. The questionnaire was divided into two parts in which the first part asked of personal details of the respondents which includes the gender, age, educational background and years in business of respondents.

The second part asked three questions in which each question was design with a Likert scale. The first question is to address the challenges confronting entrepreneurial learning; the second question is to establish the relevance of entrepreneurial learning;

and the third question is to establish a framework to facilitate entrepreneurial learning in technical education.

3.10 METHOD OF DATA ANALYSIS

Statistical Package for Social Science (SPSS) aided the analysis of the completed questionnaires. The analytical tools utilized were descriptive statistics and Relative Importance Index (RII). With the enormous combination of responses from the respondents, SPSS was used to simplify and code all the responses retrieved, which generated the basic statistical computation for the data analysis.

3.11 RESEARCH ETHICS

Ethical issues in the course of questionnaire administration and its retrieval were adhered to. Firstly, the consent of respondents were sought for before administering the questionnaires; secondly, respondents were assured they can refrain from taking participation in the conduct; lastly the respondents were given assurance that apart from using their responses for the intended academic work, it won't be utilize for other purposes. With the respondents having been assured of these, they were willing to take participation in the research conduct.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This chapter analyzes and discusses data collected from the field survey to identify the challenges confronting entrepreneurial learning, the relevance of entrepreneurial learning and a framework to facilitate entrepreneurial learning in technical education in Ghana. It presents the data analysis and discussions of the results with the use of

Statistical Package for Social Sciences (SPSS). Descriptive statistics was used to analyze the demographic data while Relative Importance Index (RII) and descriptive statistics was utilized in the analysis of the dependent variables.

4.2 PRESENTATION AND DESCRIPTIVE ANALYSIS OF DEMOGRAPHIC INFORMATION

A comprehension of the respondent's profile is achieved by their demographic data. Having background knowledge of respondents helps generate confidence in the reliability of gathered data. Descriptive analysis of demographic data of respondents is presented in Fig. 4.2. This includes the sex, the respondents age, educational background of respondents and the duration of experience they have acquired in business.

4.2.1 Gender of Respondents

Fig. 4.1 below summarizes the gender of respondents in the Kumasi metropolis which shows that 27 of the total respondents representing 60% were males and the remaining 18 respondents representing 40% were females. This deduces that most of the respondents surveyed were males representing 60% of the total respondents.

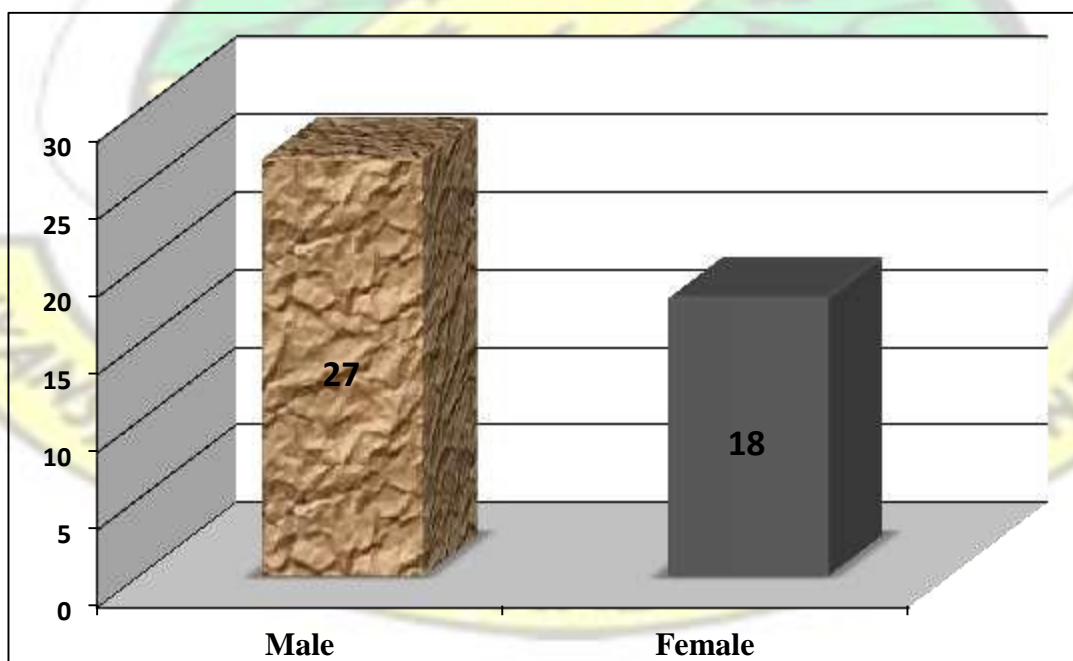


Figure 4.1 Gender of Respondents

4.2.2 Age of Respondents

Fig. 4.2 below summarizes the age of respondents in the Kumasi metropolis which shows that 6 respondents representing 13% have ages less than 25 years. 13 respondents representing 29% have ages from 25 to 35 years. 18 respondents representing 40% have ages from 36 to 45 years while the remaining 8 respondents representing 18% have ages above 45 years. This deduces that most of the respondents surveyed have ages from 36 to 45 years.



Figure 4.2 Age of Respondents

4.2.3 Educational qualification of Respondents

Fig. 4.3 below summarizes the respondent's educational background in the Kumasi metropolis which shows that 12 respondents representing 27% have higher educational background. 24 respondents representing 53% have Senior high school educational background while 9 respondents representing 20% have Junior high school educational

background. This deduces that all of the respondents surveyed have educational background and most of them have Senior high school educational background.

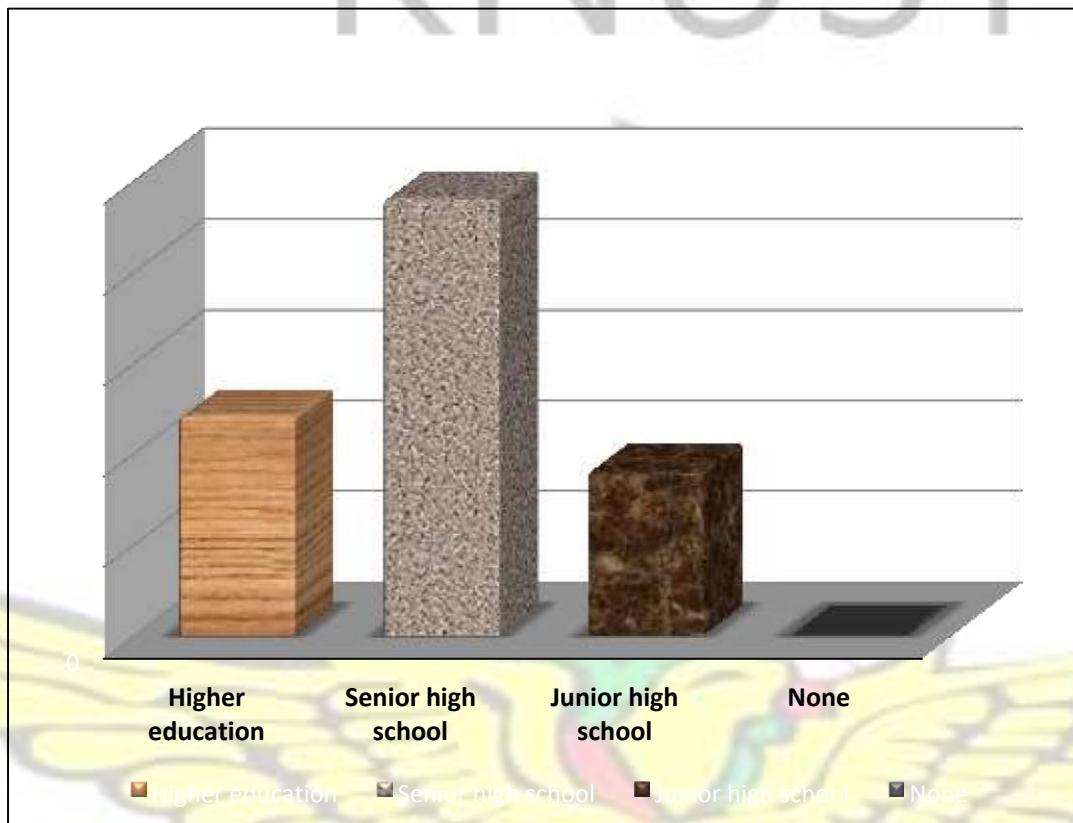


Figure 4.3 Educational qualification of Respondents

4.2.4 Number of Years in Business

Fig. 4.4 below summarizes the number of years' respondents have been in business in the Kumasi metropolis which shows that 11 respondents representing 24% have being in business for less than 6 years. 18 respondents representing 40% have being in business for 6 to 10 years. 9 respondents representing 20% have being in business for 11 to 15 years while 7 respondents representing 16% have being in business over 15 years. And thus concluding that most of the queried respondents have being in business for 6 to 10 years.

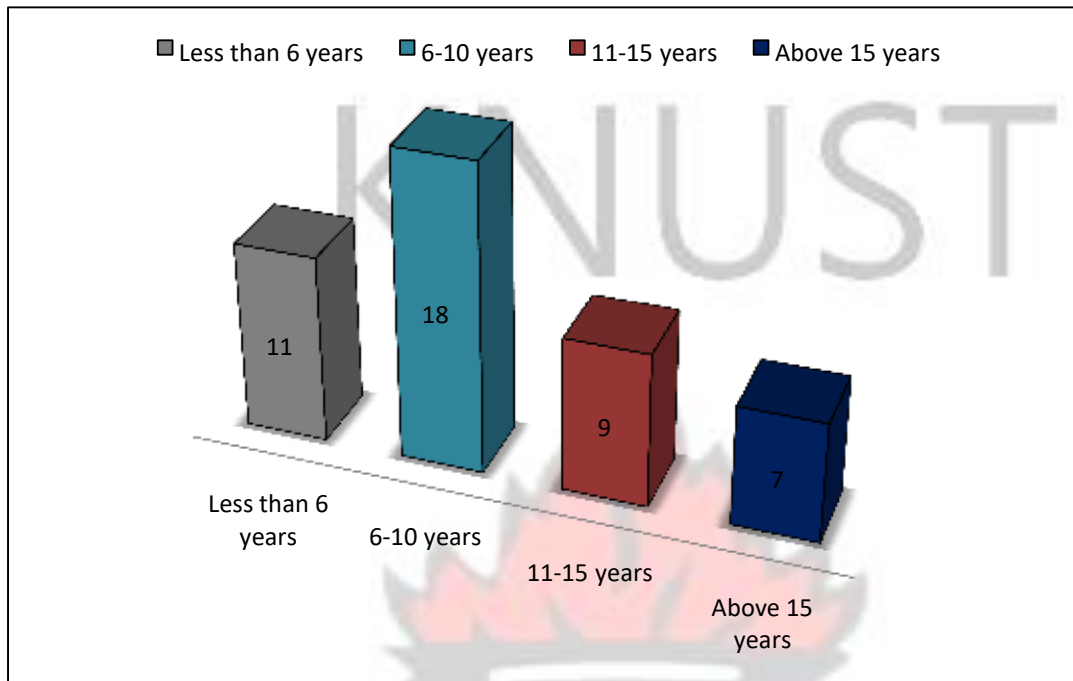


Figure 4.4 Number of Years in Business

4.3 PRESENTATION AND DESCRIPTIVE ANALYSIS OF DATA (CHALLENGES CONFRONTING ENTREPRENEURIAL LEARNING)

This section of the questionnaire was introduced to ascertain if the variable identified are really the challenges confronting entrepreneurial learning. To ascertain these challenges confronting entrepreneurial learning, questionnaires were used to collect data from the field using snowball sampling technique. A five point Likert scale was provided to give respondents the opportunity to rate these variables above on their level of agreements to these challenges from 1 to 5. 1 represents Not significant; 2 represents Less significant; 3 represents Moderately significant; 4 represents Significant; 5 represents Very significant. In other to establish the significance of these challenges in entrepreneurial learning, descriptive statistic was the analytical tool used to analyzed data gathered from the field survey.

Table 4.1 Descriptive Statistics of challenges facing Entrepreneurial Learning

	Total	Minimum	Maximum	Mean	Std. Deviation
Unreliable access to capital	45	5	5	5.0000	.00000
High loan interest rate	45	5	5	5.0000	.00000
Heavy taxation	45	4	5	4.9556	.20841
Inflation	45	5	5	5.0000	.00000
Assembling, attracting and combining resources	45	3	5	4.8667	.40452
Personal discretion	45	3	5	4.4889	.78689
Political and administrative discretion	45	3	5	4.6444	.67942
Human failings	45	3	5	4.7556	.57031
Ineffective management	45	4	5	4.9556	.20841
High economic cost of doing business	45	5	5	5.0000	.00000
Corruption in different governmental offices	45	3	5	4.5556	.75545

Table 4.1 above shows results of the analysis in which all the variables had means greater than the hypothesized mean of 3.5 and a standard deviation which is less than 1, which indicates that there is consistency in agreement of respondents' interpretations. This may be due to the fact that they understood the variables very well and also agree to the fact that these variables are challenges fronting entrepreneurial learning.

4.3.1 Ranking of Descriptive Statistics

The variables obtained were ranked after their analysis to ascertain the most significant challenges confronting entrepreneurial learning. In table 4.2 below, Unreliable access to capital, High loan interest rate, Inflation and High economic cost of doing business were

rated by respondents as the most challenges, confronting entrepreneurial learning. These variables were ranked 1st because they had the highest and the same mean and standard deviation of 5.0000 and 0.0000 respectively. The second rated challenges were Heavy taxation and Ineffective management. Assembling, attracting and combining resources, Human failings, Political and administrative discretion, Corruption in different governmental offices and Personal discretion were ranked 3rd, 4th, 5th, 6th and 7th respectively.

Table 4.2 Ranking of challenges facing Entrepreneurial Learning

	Ranking	Mean	Std. Deviation
Unreliable access to capital	1 st	5.0000	.00000
High loan interest rate	1 st	5.0000	.00000
Heavy taxation	2 nd	4.9556	.20841
Inflation	1 st	5.0000	.00000
Assembling, attracting and combining resources	3 rd	4.8667	.40452
Personal discretion	7 th	4.4889	.78689
Political and administrative discretion	5 th	4.6444	.67942
Human failings	4 th	4.7556	.57031
Ineffective management	2 nd	4.9556	.20841
High economic cost of doing business	1 st	5.0000	.00000
Corruption in different governmental offices	6 th	4.5556	.75545

It can therefore be concluded that High loan interest rate, Inflation, High economic cost of doing business, Heavy taxation, Ineffective management, Assembling, attracting and combining resources, Human failings, Political and administrative discretion, Corruption in different governmental offices and Personal discretion are challenges confronting entrepreneurial learning.

4.4 PRESENTATION AND DESCRIPTIVE ANALYSIS OF DATA (RELEVANCE OF ENTREPRENEURIAL LEARNING)

Table 4.3 Descriptive Statistics of relevance of Entrepreneurial Learning

Minimu	Maximu	Std.	Total	m	m	Mean	Deviation
Promotes the formation of new ventures	45	4.00	5.00	4.8889	.31782		
Reduce unemployment	45	5.00	5.00	5.0000	.00000		
Enhances employment prospects of graduates in the job market	45	4.00	5.00	4.8222	.38665		
Income generation and increased economic growth	45	5.00	5.00	5.0000	.00000		
Encourages processing of local materials into finished goods for as export	45	4.00	5.00	4.8889	.31782	domestic consumption as well	
Promotes technological transfer from the university to the market	45	3.00	5.00	4.6000	.57997		
Promotes sustainable business practices	45	4.00	5.00	4.8889	.31782		
Enhances individual's creativity and innovations	45	5.00	5.00	5.0000	.00000		
Provide self-employment	45	5.00	5.00	5.0000	.00000		
Employment for others	45	4.00	5.00	4.7556	.43461		
Attracts investment from out side	45	5.00	5.00	4.3333	.67420		
Growth of small firms	45	3.00	5.00	4.4889	.66134		
Development of new markets	45	3.00	5.00	4.2444	.60886		

This section of the questionnaire was introduced to ascertain if the variable identified are really the relevance of entrepreneurial learning.

Respondents were given the opportunity to rate these variables by indicating on a five point Likert scale the level of their agreements to these variables which includes

Promotes the formation of new ventures, Reduce unemployment, Enhances employment prospects of graduates in the job market, Income generation and increased economic growth, Encourages processing of local materials into finished goods for domestic consumption as well as export, Promotes technological transfer from the university to the market, Promotes sustainable business practices, Enhances individual's creativity and innovations, Provide self-employment, Employment for others, Attracts investment from outside, Growth of small firms and Development of new markets. Their mean scores and standard deviations are presented in table 4.3 above.x

4.4.1 Ranking of Descriptive Statistics

From table 4.4 below, Reduce unemployment, Income generation and increased economic growth, Enhances individual's creativity and innovations and Provide selfemployment were rated by respondents as the most significance of entrepreneurial learning. These variables were ranked 1st because they had the highest and the same mean and standard deviation of 5.0000 and 0.0000 respectively. Also, Promotes the formation of new ventures, Promotes sustainable business practices and Encourages processing of local materials into finished goods for domestic consumption as well as export were ranked 2nd having the same mean and standard deviation. Enhances employment prospects of graduates in the job market, Employment for others, Promotes technological transfer from the university to the market, Growth of small firms, Attracts investment from outside and Development of new markets were ranked 3rd, 4th, 5th, 6th, 7th and 8th respectively.

Table 4.4 Ranking of relevance of Entrepreneurial Learning

	Ranking Mean Std. Deviation
	.31782
	.00000
	.38665
	.00000
	.31782
	.57997
	.31782
	.00000
	.00000
	.43461
	.67420
	.66134
	.60886

Promotes the formation of new ventures 2nd 4.8889

Reduce unemployment 1st 5.0000

Enhances employment prospects of 3rd 4.8222

graduates in the job market

Income generation and increased economic 1st 5.0000

growth

Encourages processing of local materials

into finished goods for domestic 2nd 4.8889

consumption as well as export

Promotes technological transfer from the 5th 4.6000

university to the market

Promotes sustainable business practices 2nd 4.8889

Enhances individual's creativity and 1st 5.0000

innovations

Provide self-employment 1st 5.0000

Employment for others 4th 4.7556
Attracts investment from outside 7th 4.3333
Growth of small firms 6th 4.4889
Development of new markets 8th 4.2444

4.5 FRAMEWORK TO FACILITATE ENTREPRENEURIAL LEARNING IN TECHNICAL EDUCATION IN GHANA

Entrepreneurial learning in technical education in Ghana is seen as one of the best tools to achieve economic development. It can be used to solve the graduate unemployment in the country (Wongnaa & Seyram, 20014). Also, Turker & Selcuk (2009) added that entrepreneurial learning in technical colleges, when put into practice is not only seen as development of technological innovations, but it also provides employment opportunities and increased competitiveness. Also, becoming entrepreneur with the technical knowledge and skills after graduating from school is relevant component in solving development problems (Maas & Herrington, 2006).

Herrington (2009) further comment that entrepreneurship and new firm creation have become the focus for closing the unemployment rate since the government has failed in its duty to employ graduates. In conclusion entrepreneurship can be counted as a panacea to graduate unemployment in Ghana if it is given much attention (Wongnaa & Seyram, 20014).

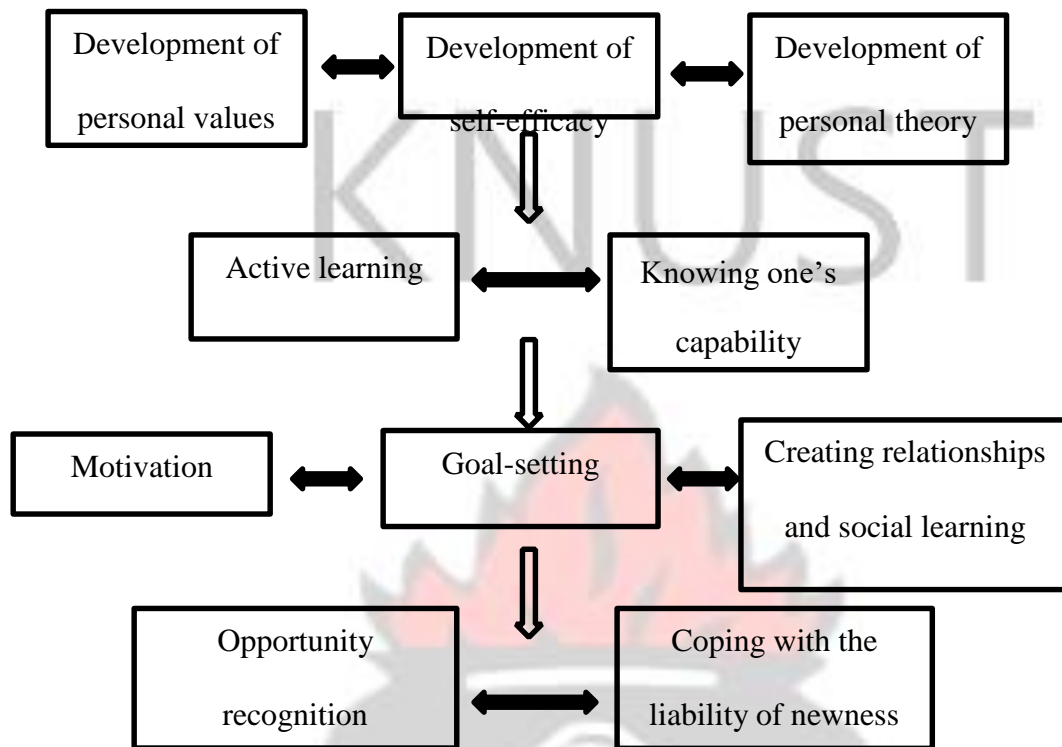


Figure 4.5 Framework to Facilitate Entrepreneurial Learning (Author, 2015) In view of these, it has therefore become necessary to enhance entrepreneurial learning in technical education in Ghana. A framework to facilitate entrepreneurial learning in technical education in Ghana is developed to ascertain its significance in impacting entrepreneurial learning. Questionnaires were distributed and respondents were given the opportunity to rate in their opinion the significance of these models in facilitating entrepreneurial learning in technical education in Ghana.

Table 4.5 Framework to Facilitate Entrepreneurial Learning

		WEIGHTING									
	PARTNERSHIP STRATEGIES	1	2	3	4	5	TOTAL	$\sum W$	Mean	RII	Rank
1	Development of personal values	0	0	0	8	37	45	217	4.822	0.964	1 st
2	Goal-setting	0	0	0	23	22	45	202	4.489	0.898	4 th
3	Motivation	0	0	0	27	18	45	198	4.400	0.880	5 th

4	Development of self-efficacy	0	0	0	13	32	45	212	4.711	0.942	2 nd
5	Knowing one's capability	0	0	0	31	14	45	194	4.311	0.862	6 th
6	Development of personal theory	0	0	0	33	12	45	192	4.267	0.853	7 th
7	Opportunity recognition	0	0	0	19	26	45	206	4.578	0.916	3 rd
8	Coping with the liability of newness	0	0	0	27	18	45	198	4.400	0.880	5 th
9	Active learning	0	0	0	38	7	45	187	4.156	0.831	8 th
10	Creating relationships and social learning	0	0	0	27	18	45	198	4.400	0.880	5 th

These include: Development of personal values, Goal-setting, Motivation, Development of self-efficacy, Knowing one's capability, Development of personal theory, Opportunity recognition, Coping with the liability of newness, Active learning and Creating relationships and social learning. Their calculated mean scores and Relative Importance Index (RII) scores are presented in table 4.5 above

Development of personal values was rated by respondents as the most significant obtaining a mean and a RII of 4.822 and 0.964 respectively. Development of self-efficacy, Opportunity recognition and Goal-setting were ranked 2nd, 3rd and 4th respectively by respondents. Motivation, Coping with the liability of newness and Creating relationships and social learning were ranked 5th with a mean and a RII of 4.400 and 0.880 respectively. Knowing one's capability, Development of personal theory and Active learning were ranked 6th, 7th and 8th respectively.

This can be deduced that the framework developed to enhance entrepreneurial learning is appreciated by respondents. It can further be deduced that it has a great impact on entrepreneurial development.



CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter, issues addressed in the previous chapters is been summarized. Facts that can be relied upon were explored by the four previous chapters. This chapter is of the aim of drawing conclusion to the research, summarizing the findings of the study and making some necessary recommendations.

5.2 ACHIEVING RESEARCH OBJECTIVES

The primary aim for inciting this research is to develop a conceptual framework for facilitating entrepreneurial learning in technical education in Ghana. Three objectives were set for the stated aim to be achieved. The three objectives were achieved through literature reviews and conducting a field survey using questionnaires to gather data. How the objectives were achieved is been discussed below.

5.2.1 Objective One; To Identify the Underpinning Potential Challenges Confronting Entrepreneurial Learning

Questionnaires were designed with the background knowledge gained from the literature review on potential challenges confronting entrepreneurial learning. This was tested on a number of entrepreneurs in the Kumasi metropolis to rate the challenges obtained from the literature review to ascertain their level of agreements to these challenges. From the analysis of data collected illustrates that all the identified variables are challenges confronting entrepreneurial learning which includes Unreliable access to capital, High loan interest rate, Heavy taxation, Inflation, Assembling, attracting and combining resources, Personal discretion, Political and administrative discretion, Human failings, Ineffective management, High economic cost of doing business,

Corruption in different governmental offices. Furthermore, it was establish that Unreliable access to capital, High loan interest rate, Inflation and High economic cost of doing business are the most significant challenges confronting entrepreneurial learning.

5.2.2 Objective Two; To Identify the Relevance of Entrepreneurial Learning

Questionnaires were designed with the background knowledge gained from the literature review on the relevance of entrepreneurial learning. This was tested on a number of entrepreneurs in the Kumasi metropolis to rate the variables on the relevance of entrepreneurial learning obtained from the literature review to ascertain their level of agreement to these variables. From the analysis of data collected illustrates that all the identified variables are relevance of entrepreneurial learning which includes Promotes the formation of new ventures, Reduce unemployment, Enhances employment prospects of graduates in the job market, Income generation and increased economic growth, Encourages processing of local materials into finished goods for domestic consumption as well as export, Promotes technological transfer from the university to the market, Promotes sustainable business practices,

Enhances individual's creativity and innovations, Provide self-employment, Employment for others, Attracts investment from outside, Growth of small firms and Development of new markets.

Furthermore, it was establish that Reduce unemployment, Income generation and increased economic growth, Enhancement of individual's creativity and innovations and Provision of self-employment are the most significance of entrepreneurial learning.

5.2.3 Objective Three; To develop a framework for facilitating entrepreneurial learning in technical education in Ghana

Questionnaires were designed with the background knowledge gained from the literature review on framework for facilitating entrepreneurial learning. This was tested on a number of entrepreneurs in the Kumasi metropolis to rate the themes obtained from the literature review to ascertain their level of agreements to these themes. From the analysis of data collected illustrates that all the identified themes will facilitate entrepreneurial learning in technical education in Ghana which includes Development of personal values, Goal-setting, Motivation, Development of self-efficacy, Knowing one's capability, Development of personal theory, Opportunity recognition, Coping with the liability of newness, Active learning and Creating relationships and social learning.

Furthermore, it was establish that Development of personal values, Development of self-efficacy, Opportunity recognition, Goal-setting, Motivation, Coping with the liability of newness and Creating relationships and social learning are the most significant themes that will facilitate entrepreneurial learning in technical education in Ghana.

5.3 RECOMMENDATIONS

Entrepreneurial learning in technical education in Ghana is seen as one of the best tools to achieve economic development. It can be used to solve the graduate unemployment in the country (Wongnaa & Seyram, 2014). In spite of the potentials in the Ghanaian polytechnics and universities, Denanyoh *et al.* (2015) argue that government regulatory set-up is not supportive enough to encourage citizens to engage in entrepreneurship. These among others have contributed to poor

participation in entrepreneurship, more especially, graduates from the polytechnics or universities and other technical institutions. In view of these, the country still experience high unemployment rate (Wongnaa & Seyram, 2014).

The following recommendations are prescribed in view of the research findings to enhance entrepreneurial development in technical education in Ghana.

- Students must be encouraged to opt for entrepreneurship after school.
- Government regulatory set-up must be supportive enough to encourage citizens to engage in entrepreneurship.
- Also, formal education in entrepreneurship does have a direct and strong impact on students instead focuses should be put on developing creativity thinking and reflection among individuals. This will have a great influence on individual's motivation and his/her ability to be entrepreneurially inclined throughout his/her professional lives
- Moreover, entrepreneurship education must be incorporated at the early stages in schools and entrepreneurship educators should possess the same innovative drives that are being expected from their students.

5.4 LIMITATIONS FOR THE RESEARCH

The conduct of this research had limitations likewise any other research. The limitations will enhance a base foundation for further studies. The study was narrowed solitarily to entrepreneurs in Kumasi metropolis in the Ashanti region. In addition, only published literatures were used in the analysis of the research which founded on the data and results gathered from respondents using questionnaires. Moreover, in carrying out this study obtaining information from respondents was difficulty due to their busy schedules. Also, financial and time constraints limited the sample size of the study.

5.5 AREAS FOR FUTURE STUDIES

The study conducted exposed numerous areas which needs research attention.

Recommendation for further studies are presented below:

- Entrepreneurial challenges in constructing a resource base.
- Environmental and psychological challenges confronting entrepreneurial development.
- Embedding new entrepreneurship programs in higher educational institutions.



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APPENDIX

QUESTIONNAIRE DESIGN

Topic:

DEVELOPMENT OF A FRAMEWORK FOR ENTREPRENEURIAL LEARNING IN TECHNICAL EDUCATION

This study is to identify challenges confronting entrepreneurial learning, the relevance of entrepreneurial learning and to develop a framework for facilitating entrepreneurial learning in technical education in Ghana. Please kindly respond to the questions by ticking the appropriate box for each item. Please note that all information provided will be strictly confidential.

Thank you for your assistance.

PART A - PERSONAL DETAILS

1. Gender?

(A) Male (B) Female

2. Age?

(A) Less than 25 years (B) 25- 35 years (C) 36 - 45 years (D) Above 45 years

3. What is your educational qualification?

(A) Higher education (B) Senior high School (C) Junior high school (D) None

4. How long have you being in business?

(A) Less than 6 years (B) 6 - 10 years (C) 11 - 15 years (D) Above 15 years

PART B

Q1.

The following are challenges confronting entrepreneurial learning. Please use the scale [1= **Strongly Disagree**; 2= **Disagree**; 3= **Neutral**; 4= **Agree**; 5= **Strongly Agree**] to rate them. Please tick (✓) in the space provided.

No	Challenges confronting entrepreneurial learning	1	2	3	4	5
1	Unreliable access to capital					
2	High loan interest rate					
3	Heavy taxation					
4	Inflation					
5	Assembling, attracting and combining resources					
6	Personal discretion					
7	Political and administrative discretion					
8	Human failings					
9	Ineffective management					
10	High economic cost of doing business					
11	Corruption in different governmental offices					

Q2.

The following are relevance of entrepreneurial learning. Please use the scale [1= **Strongly Disagree**; 2= **Disagree**; 3= **Neutral**; 4= **Agree**; 5= **Strongly Agree**] to rate their order of importance. Please tick (✓) in the space provided.

No	Relevance of entrepreneurial learning	1	2	3	4	5
1	Promotes the formation of new ventures					
2	Reduce unemployment					

3	Enhances employment prospects of graduates in the job market					
4	Income generation and increased economic growth					
5	Encourages processing of local materials into finished goods for domestic consumption as well as export					
6	Promotes technological transfer from the university to the market					
7	Promotes sustainable business practices					
8	Enhances individual's creativity and innovations					
9	Provide self-employment					
10	Employment for others					
11	Attracts investment from outside					
12	Growth of small firms					
13	Development of new markets					

Q3.

The following are models to facilitate entrepreneurial learning in technical education.						
Pleas No	e use the scale [1= Not significant; 2= Models to facilitate entrepreneurial learning	Less 1	signific 2	ant; 3= 3	Mode 4	rately 5
1	Development of personal values					

2	Goal-setting					
3	Motivation					
4	Development of self-efficacy					
5	Knowing one's capability					
6	Development of personal theory					
7	Opportunity recognition					
8	Coping with the liability of newness					
9	Active learning					
10	Creating relationships and social learning					

