

**STRATEGIES FOR IMPROVING ENTREPRENEURIAL SKILLS AMONG
PROJECT MANAGEMENT GRADUATES IN GHANA**

By

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ABSTRACT

In Ghana, graduates often have limited entrepreneurial skills and rarely undertake entrepreneur initiatives as they are persistently in search of non-existing jobs in the formal sector. Based on this was this study conducted to identify strategies to improve entrepreneurial skills among Project Management graduates in Ghana. To help in the realization of this aim were three (3) objectives put forward as: to identify the entrepreneurial skills needed by project management graduates, to outline the strategies in place to improve the entrepreneurial skills needed by project management graduates and to identify the obstacles to the development of the entrepreneurial skills of project management graduates in Ghana. The institutional-based descriptive cross-sectional design study employed a survey strategy in the collection of data from project management professionals or graduates through structured questionnaire. The study approach was largely quantitative as the study largely dwelled on realism of events and aimed at testing existing theories on the entrepreneurial development of project management graduates. The analysis of the data gathered was done using descriptive statistics, relative importance index (RII) and Kendall Wallis Test of Concordance. Findings from the analysis depicted that the entrepreneurial skills perceived as the most important were creative skills and communication skills. Communication skills in the form of working in a team, ability to use relevant language to negotiate, persuade and convince, and the ability in brainstorming interaction networking are termed as critical to the entrepreneurial development of project management graduates. Creative skills in the form of ability to visualize and identify new problem areas in the society, ability to generate new ideas or concepts, ability to apply knowledge acquired in real life events and the ability to apply knowledge acquired with others are perceived as critical to the entrepreneurial development of project management professionals or graduates. Revealed from the study was four Principal Obstacles identified as limited funds for youth's start-up and business expansion, theoretical based curriculum against practical skill acquisition, system of education not producing talented workforce and no loan facilities for graduates to establish their businesses. It was recommended that entrepreneurship development fund for graduates, restructuring of higher level educational curricula, loan facilities for graduates and organizing periodic workshops and seminars on entrepreneurship development will help improve entrepreneurial development of project management graduates in Ghana.

KEYWORDS: Strategies, Entrepreneurial skills, Improve, Obstacles, Graduates

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DEDICATION

This thesis is dedicated to the Almighty God, family and friends for their support and efforts.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Ghana has been experiencing a rapid growth in population since the early 1950s (Boadu, 1998). The rise has become a persistent phenomenon reaching an alarming size of an estimated 30,417,856 in 2019 with enormous attendant socio-economic challenges (Baah-Boateng, 2018). The impressive growth in performance of Ghana has failed to translate into the creation of sufficient jobs to meet the ever increasing labour force. The rate of unemployment in Ghana increased to 2.40 percent in 2017 from 2.30 percent in 2016 (Ghana Statistical Services, 2018). Undeniably, the growth in economic growth is far from matching quick pace of employment growth especially in the formal sector (Aryeetey and Baah-Boateng, 2016). For each percent of economic growth there is an associated 0.5 percent employment growth, with the majority of the created jobs in the informal sector (Aryeetey and Baah-Boateng, 2016). The creation of job has persistently fallen short of the rising number of entrants in the labour market. For instance, the 207,492 jobs created in 2014 by non-household enterprises (Ghana Statistical Services, 2015), fell short of the potential net labour market entrants of estimated 519,539 in 2014 (Baah-Boateng, 2018). This is an indication of the weak employment content of Ghana's economic growth.

Notwithstanding the enormous impact of the challenge of unemployment on the labour force as a whole, the effect on the youth is more severe as this group of the population tends to possess the highest rates of unemployment or more dominant in the vulnerable and informal sector (Baah-Boateng, 2018). The fascinating part of the youth employment of

Ghana is that the situation is lower among the less educated and higher among the highly educated. The youth with bachelor's degrees within the age category of 29 years and below dominates the unemployment rate. The white collar jobs in the formal sector are insufficient to cater for the persistent growth in the youth graduating from school (Daluba and Odiba, 2013). There is therefore an increase in social vices like armed robbery, thievery, kidnapping and human trafficking among the youth resulting insecurity among the populace (Ebenehi and Oguche, 2012).

The National Employment Policies in Ghana aimed at addressing employment situation, and deal with decent work deficits, targeting in particular, vulnerable groups, the youth, women and persons with disability have often aimed at strengthening the entrepreneurial skills of graduates. Most national employment policies of Ghana have largely focused on components of employment such as entrepreneurial development, research and innovation, vocational and technical skills development and many others (Ministry of Employment and Labour Relations, 2014). Entrepreneurship is seen as the foundation of economic development (Ojidu, 2011), as it creates employment opportunities for the youth. In line with this, quality instruction and revitalization are required at all levels of Ghanaian education to train and impart the necessary skills to make the youth more economically self-reliant (Maigida, Saba and Namkere, 2013). Through effective entrepreneurship education students could be equipped with the required marketable and entrepreneurial skills to meet the demands of the world of work (Daluba, 2009). There is therefore the need for entrepreneurial orientation of project management students to gain high appeal in the

local and global labour market (United National Educational, Scientific and Cultural Organization (UNESCO), 2006).

1.2 PROBLEM STATEMENT

In Ghana, graduates often have limited entrepreneurial skills and rarely undertake entrepreneur initiatives as they are persistently in search of non-existing jobs in the formal sector. The course structure in many higher institutions in Ghana is practically turning into theory due to limited funding in terms of materials and facilities (Dzeto, 2014). Furthermore, there are limited studies on the entrepreneurial skills of project management students as many studies have focused on the situation of all graduates in Ghana. There is the need for separation and emphasis on project management students as national unemployment policies have often emphasized on entrepreneurship education as educational reformation strategy for making the youth more self-employable. More so, the many studies on the entrepreneurial skills of students in Western African sub-region have focused on the situation in Nigeria (e.g., Ogundele, Akingbade and Akinlabi, 2012; Daluba and Odiba, 2013; Maigida, Saba and Namkere, 2013; Alhasan and Tyabo, 2013), with limited emphasis on the situation in Ghana.

1.3 AIM OF THE STUDY

The study aimed at identifying effective strategies for improving the entrepreneurial skills of project management graduates in Ghana.

1.4 RESEARCH OBJECTIVES

The study specifically sought to:

1. To identify the entrepreneurship skills needed by project management graduates;
2. To identify the obstacles to the development of the entrepreneurial skills of project management graduates.
3. To outline the strategies in place to improve the entrepreneurial skills of project management graduates;

1.5 SIGNIFICANCE OF THE STUDY

The study would be of immense significance to several stakeholders including students, tutors, researchers, managers of institutions, and policy makers in Ghana. Policy makers like the Ministry of Education and the Ministry of Employment and Labour Relations would be informed by the study in the designing and implementation of policies that could involve course content restructuring in education aimed at reducing youth unemployment which is rising at an alarming rate in Ghana. This study could inform policy makers and the Government of Ghana to develop strategies to reduce the institutional bottlenecks in the development of the entrepreneurial skills of students through the provision of adequate funds for training and practical programmes. The Ghana Education Service (GES) and the Ministry of Education (MoE) would also be informed in their mission of creating enabling environment for the youth to acquire quality demand-driven employable skills and general education to enable them fulfill the country's human resource requirements.

In an attempt to achieving the Sustainable Development Goals (SDGs 1, 4, 8, 9, 10, 12), policies makers could further be informed in developing relevant strategies to make graduates of institutions more self-employable. End poverty in all its forms everywhere (Goal 1), ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all (Goal 4), promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal 8), building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (Goal 9), reducing inequalities within and among countries (Goal 10) and ensuring sustainable consumption and production patterns (Goal 12). Besides, any information from this study that aids in the reformation in the course structure to strengthen entrepreneurial skills development of students will inure to benefits of the students eventually.

Furthermore, there is seemingly limited or scanty information on entrepreneurship development of students in Ghana as most researchers in Western Africa have focused on the Nigerian situation. This study will therefore contribute to abridging the scanty literature gap on entrepreneurship development of students in Ghana and hence serve as a reference point for many researchers, tutors, lecturers and students in Ghana.

1.6 SCOPE OF THE STUDY

The study conceptually focused on the entrepreneurship skills needed by project management students, the obstacles to the development of the entrepreneurial skills of project management students and the strategies in place to improve the entrepreneurial

skills of project management students. Geographically, the study focused on project managers in Ghana, who are registered with Project Management Professionals (PMP).

1.7 METHODOLOGY

The institutional-based descriptive cross-sectional design study employed a survey strategy in the collection of data from project management professionals or graduates through structured questionnaire. The study approach was largely quantitative as the study largely dwelled on realism of events and aimed at testing existing theories on the entrepreneurial development of project management graduates. Thus, the study was largely post-positivism in terms of philosophical paradigm. The study population constituted all project management graduates registered with the PMP in Ghana. The study involved the selection of 160 project management graduates registered with PMP through simple random sampling method. Data collected was analysed using both descriptive and inferential statistical tools (SPSS).

1.8 ORGANISATION OF CHAPTERS

The study will be organized into five chapters. The introduction section will constitute the background of the study, the problem statement, objectives and research questions, the significance of the study, delimitation and limitation. The Chapter Two of the reviewed literatures will be related to the concept of entrepreneurship, the strategies in place to improve the entrepreneurial skills of students, and the obstacles to the development of the entrepreneurial skills of students. The chapter will also deliberate on the theoretical and conceptual frameworks of the study. The Chapter Three of the study will discuss the

methods and methodologies employed in the study. The Chapter Four of the study will also present, analyse and discuss the result of the study. The Chapter Five will conclude and recommend on the basis of the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The chapter reviewed literatures related to the study. The reviewed covered concepts and developments in the area of study, empirical literatures, and the theoretical grounding of the study. The thematic areas covered were the concept of entrepreneurship, the concept of entrepreneurship education, entrepreneurial skills, entrepreneurial skills needed by students, the strategies to improve the entrepreneurial skills of students and the obstacles to the development of the entrepreneurial skills of project management students. The last part of the chapter emphasized on the theoretical model of entrepreneurship and the theoretical framework of the study.

2.2 ENTREPRENEURSHIP

Entrepreneurship originated from the French word "entrepreneur" that suggests to "undertake" (Kuratko and Hodgetts, 2007). Entrepreneurship has been characterized as an unrestricted work of any sort and an entrepreneur as individuals who go out on a limb by buying products at specific costs in the present to offer at unverifiable costs later on (Ahmed and Seymour, 2007). Entrepreneurship is the act of creating a business or businesses while building and scaling it to generate a profit. Entrepreneurship has also been described as the process of creating new venture and new organization (Shane and Venkataraman, 2000). Through that process, some valuable things will be created from nothing (Timmons, 1978) by contributing time, work effort, money and risk to get intrinsic

rewards (for example, personal satisfaction or autonomy) and extrinsic rewards (for example, monetary rewards) (White, 2013).

The process of designing, launching and running a new business, which is often initially a small business can be termed entrepreneurship. Entrepreneurs are those who create these businesses. (Katila, Chen and Piezunka, 2012; Yetisen et al., 2015). However, as a basic entrepreneurship definition, it is a bit limiting. The more modern entrepreneurship definition is also about transforming the world by solving big problems. Like initiating social change, creating an innovative product or presenting a new life-changing solution. Thus, entrepreneurship involves the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit. The most obvious example of entrepreneurship is the starting of new businesses (Yetisen et al., 2015).

Drawing on the seminal work by Schumpeter (1934), entrepreneurship is widely viewed as a crucial mechanism for economic development offering employment, innovation and welfare by means of hard work, creativity and risk taking (Acs, Desai and Hessels, 2008; Kirchoff, 1997; Wennekers and Thurik, 1999). Based on the definitions, the key features of entrepreneurs are taking risk (Cantillon, 1730); business administration contribution (Say, 1816); development and imagination (Schumpeter, 1934) and entrepreneurial status (Drucker, 1985). For Shane (2003) risk-taking behavior, driven by the expectation of making profit and the perception of good business opportunities, is one of the important attributes of entrepreneurs in overcoming the uncertainty of the market (Shane and Venkataraman, 2000).

In addition, Shane (2003) demonstrates that, for identifying entrepreneurial opportunities, entrepreneurs need entrepreneurial skills. To act on existing business opportunities, individuals require entrepreneurial knowledge and skills to be able to assess the opportunity in order to turn it into value (Shane, 2003). Entrepreneur skills are perceived as innate and possessed naturally by some authors (Rauch and Frese, 2007), whereas others suggest that they are acquired through training and education (Ronstadt, 1990; Kuratko, 2005). Of particular importance is the entrepreneurial skills and motivation acquired through higher education.

2.3 ENTREPRENEURSHIP EDUCATION

By definition, entrepreneurship is the willingness and ability of an individual to seek for investment opportunities, to establish and to run an enterprise successfully (Suleiman, 2006). The entrepreneurship spirit is a pre-requisite to an entrepreneurial society and culture. This is in line with the view of Nwangwu (2006) that entrepreneurship is the willingness and the ability of an individual or a firm or an organization to identify an environmental change and exploit such an opportunity to produce goods and services for public consumption. In the words of Dangote as stated by Odjegba (2005) entrepreneurship is built on vision, focus and determination. It is built on standards management practices, enabling environment, access to funds and many others. Developing a business plan, determining required resources and managing of resulting enterprise is involved in entrepreneurship. (Allawadi, 2007). It is also when goods and ideas are consistently converted into commercial ventures that are profitable. A continuous pursuit of opportunities through innovations leverage of resource that are mostly not controlled

internally. The ability of an individual to turn ideas into action is referred to as entrepreneurship. Entrepreneurship education is critical to risk reduction and increase in benefits of entrepreneurs through effective decision-making (Zhou et al., 2012).

The European Commission (2009) postulate that entrepreneurial programmes and modules offer the beneficiaries the ability to think creatively and become an effective problem solver. Modern school of thought claims that the role of the entrepreneur is that of an innovator, even though the definition of innovation is still widely debatable. However, Kitner (2007) posits that the process of innovation is actually of spontaneous “un deliberate learning”. Meaning that the necessary characteristic of entrepreneur is alertness, and no intrinsic skills are involved. Through the idea that entrepreneurs are innovators is largely acceptable, it is difficult to apply this theory of entrepreneurship to Less Developed Countries (LDCs). According to Allawadi (2007) entrepreneurs in LDCs rarely produce brand new products; rather they imitate the products and production processes that have been innovated in developed countries. Allawadi refers to this practice as “creative imitator”. Creative imitation takes place when the imitators better understand how an innovation can be applied, used, or sold in their local market. Thus, the innovation process in LDCs is often that of imitating and adapting, instead of the traditional notion of the new product or process discovery and development. Some individual apply the concept of entrepreneur and entrepreneurship to the creation of any new business, while others may focus on intentions.

Entrepreneurship was first conceptualized in the economic theory by economists such as Schumpeter (1934) and Kirzner (1979). The concept was initially seen as akin to starting a business. Due to Entrepreneurship relevance, scholars from other disciplines such as sociology, psychology and management studies started to attract its attention. (Schumpeter, 1934). This explains why recent academicians, present an analysis of entrepreneurship in line with other concerns like the psychological and sociological outlook of entrepreneurship. There is a linkage between entrepreneurs to entrepreneurial passion, which is understood as consciously accessible, intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur (Cardon et al., 2009). It is further acknowledged that the identification and use of opportunities lie at the heart of entrepreneurship, though such a process is made possible by the individual's networks or social capital (Kwiatkowski, 2004).

Starting a business is not the main component of entrepreneurship because entrepreneurship is concerned with stimulating economic progress through innovation and action. Entrepreneurship is recognized as a key factor for fostering economic growth based on innovation (European Commission, 2010). The European Commission goes on to explain that the sense of initiative and entrepreneurship was defined by the European Parliament and the Council in 2006 as an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of

their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance.

Entrepreneurship can be approached both in terms of entrepreneurial firms and people (Swartland, 2008). The characteristics of the entrepreneurial firm include the following; small-fast-growing, organic and network-based (Solomon et al., 2005). The entrepreneurial person has the following characteristics; risk taking, daring, innovative, aggressive, intrinsically motivated for achievement and foresight (Schumpeter, 1934; Wilkens, 1979; Stevenson and Jarillo, 1991). Swartland (2008) says that another approach to defining entrepreneurship can be structured around Stevenson and Jarillo's question about *what, why and how*. Whatever the approach taken to define entrepreneurship, the qualities, skills and values required to be entrepreneurs bear some similarities. Schumpeter (1934) says the strong quality of an entrepreneur is risk-taking and innovative, Wilken's (1979) comments that the entrepreneur is daring, aggressive and has an intrinsic need for achievement. For Stevenson and Jarillo (1991), entrepreneurs have the capacity to identify and grasp opportunities and they use their skills (e.g. persuasiveness, negotiation, strategic thinking) in order to achieve their aims. Consequently, entrepreneurship is linked to a wide range of skills and attitudes which include creativity, innovation, risk-taking, passion, leadership, foresight and sense of initiative.

Entrepreneurship education is an organized and well planned set of educational activities that is aimed at developing entrepreneurship related competences. The competences

developed through entrepreneurship education are identified by Ongigi (2012) as: (1) Specific knowledge (e.g. knowledge of the workings of the economy); (2) Skills (e.g. planning, organization, analysis, communication, negotiation, working individually and in teams, risk assessment, capacity to identify opportunities for personal and professional or business activities); and (3) Attitudes (e.g. sense of initiative, pro-activity, independence and motivation and determination to meet objectives). Equally, the European Commission (2010) links the development of entrepreneurial attitudes and behaviours to education and training as it emphasizes that entrepreneurship can be fostered and nurtured through learning processes. It also recognizes that teachers have a critical role to play in the development and promotion of entrepreneurship education.

2.4 ENTREPRENEURIAL SKILLS

For an entrepreneur to be successful in their field of work, there should be entrepreneurial competence which is referred to as entrepreneurial skills. To qualify as an entrepreneur, one must possess the entrepreneurial ability to function on several skills. These skills include the following: creative skill (ability to visualize and identify new problem areas in the society and try to generate new ideas or concepts in that line); innovative skill (ability to generate and apply creative ideas in some specific content to solve identified problem for the benefit of society); managerial skill (ability to define goals and objectives, plan and stipulate strategies to organize, motivate, direct and control resources to attain stated objectives); analytical skill (ability of numeracy, generation and analysis of data for relevant decision making); marketing skill (ability of book keeping and accounting, integrating business logistics to increase sale of goods and services); communicative skill

(ability to use relevant language to negotiate, persuade and convince) and career skill (ability to assess self, career planning techniques and self-directed learning); knowledge (computer literacy and business related knowledge); attitudes(sensitivity to needs and consequences and perception) and personality variables (such as achievement, motivation, imagination and entrepreneurial drive) (Idowu 2004; Adepoju and Adedeji 2012; and Caird in Mundra, 2012). Most important skills perceived to be essential to the entrepreneurial development of undergraduate students are marketing skill, desire to success, attitude skills, social skills, leadership skill, and innovation and creativity (Ghazali, Ibrahim and Zainol, 2013).

The taxonomic elements are associated with Lower order thinking skills, (LOTS) and higher order thinking skills (HOTS). LOTS includes: Remembering – (recognizing, listing, describing, identifying, retrieving, naming), Understanding – (interpreting, summarizing, inferring, paraphrasing, classifying), Applying – (Implementing, carrying out, using, executing). Higher order thinking skills (HOTS) include: Analyzing– (comparing, organizing, deconstructing, attributing, outlining, finding), Evaluating– (checking, hypothesizing, critiquing, experimenting, judging, testing), Creating – (designing, constructing, planning, producing, inventing, devising) (Bloom, 1956). These thinking skills are needed for entrepreneurial skill development. In the higher order thinking skills, the Nigerian education system is yet to be at the creative skills level and that is one of the causes of unemployment. A student who is exposed to a modicum or body of knowledge is more disposed to being creative than otherwise. This body of knowledge can either be

formal (within classroom milieu) or non-formal outside the classroom. It is the development of these skills in students that is the main thrust of this study.

2.4.1 Entrepreneurship Skills Needed by Project Management Graduates

Student's skill competence assessment is an important phase to complete learning process (Samsudi, Widodo and Margunani, 2016). The learning phase should be designed and implemented not only to measure learning objective target, but also to provide entrepreneurship experience for the graduates. The skills generally required by entrepreneurs are classified into three main areas including technical skills, business management and personal entrepreneurial skills (Mullins, 2010). Technical skills involve such things as writing, listening, oral presentation, organizing, coaching, being a team player, and technical know-how. Business management skills include those areas involved in starting, developing and managing an enterprise. There's a difference between an entrepreneur and a manager, the personal entrepreneurial skills differentiate an entrepreneur from a manager. Skills under this category includes inner control (discipline), risk-taking, being innovative, being change-oriented, being persistent, and being a visionary leader among others (Osuagwu, 2006). The entrepreneurial skills required by undergraduates include technical skills, managerial skills, accounting skills, communication skills, professional skills, and information processing skills, creativity skills, cooperative skills, credit sourcing skills, home management skills, decision-making skills, civic awareness skills, marketing skills, and several other occupational skills (Samsudi, Widodo and Margunani, 2016).

In the survey of ninety-nine (99) entrepreneurial educators in Kogi State in Nigeria, Daluba and Odiba (2013) reported skills like manipulative, marketing, risk bearing, practical, creative, personnel management, professional, productive, innovative, controlling, administrative, demonstrable, financial resources, time management, self-motivational and accountability skills as the main entrepreneurial skills required by students for self-employability. In the survey of the entrepreneurial attitude and self-efficacy of students in Malaysia, Pihie and Bagheri (2011) reported positive attitude towards entrepreneurship in the areas like self-esteem cognition, achievement cognition, and achievement affect but high to moderate self-efficacy. In the survey of 418 lecturers in vocational and adult education programmes in universities in South-Eastern Nigeria, Agboeze, Onu and Ugwoke (2013) it was reported that the ability to analyse, evaluate and challenge assumptions, information and opposing point of view are essential critical thinking skills required by students.

2.4.2 Strategies to Improve the Entrepreneurial Skills of Project Management Graduates

Strategy is a method, road map, blue print worked out in advance for achieving some objectives (Nicholas, 2000). It is also a means or procedure for doing something. This implies that strategy is a careful plan or method for achieving a particular goal usually over a long period of time. However, strategies for empowering individuals can be worked out through the pertaining education system. Various strategies could be applied to develop reliable skills among project management undergraduates. Such strategies are practical oriented and taught to students together using pragmatic teaching techniques as

demonstration, problem solving, lecture, discussion, field trips (excursion), role play and internships (Ifeanyichukwu, Eze and Okoli, 2018).

Demonstration is any planned performance by an expert on an occupational skill or information aimed at explaining the steps or facts of an operation. This is a basic strategy for introducing new skills to the learner aimed at showing how a process, procedure or experiment is to be carried out (Okoli and Igwegbe, 2015). This is teaching by doing as evidence or proof of a claim. In entrepreneurship training, the teacher demonstrates as students do same under supervision. The explanatory strategy is also employed by lecturers and tutors in trying to enhance the entrepreneurial skills of project management graduates. Explanation Strategy involves imparting skill in conjunction with almost all other methods of teaching method. Concepts in entrepreneurship are first explained and followed by practicals (Okoli and Ezenwafor, 2015). For instance, in impartation of skills on how to start an automobile engine, the concept of automobile engines and how they function is first brought to the knowledge of the undergraduates. The use of explanation as a strategy to impart skills among students start with what the student is familiar with, and then proceed towards the desired goal. This is done by explanations, moving from simple to complex concepts. This is further followed by demonstration by driving the engine as practical example. The material to be presented should be properly understood.

Another strategy is through lecturers using buzz groups. The lecturing strategy is the most commonly used method of teaching especially when the facilitator has a wide area of knowledge to cover to a large number of people within a short period (Ifeanyichukwu, Eze

and Okoli, 2018). Imparting skills with lecturing as a strategy in entrepreneurship education is very effective if the undergraduates are divided into smaller groups and organized to talk, lecture and present shared topics in turns to the entire class. The course content is shared and assigned to member groups with leaders for control. To ensure achievement of objectives the facilitator directs the activities of each group in terms of objectives and procedure to achieve the desired outcome. The use of buzz groups engages undergraduates in discussion to bring in their own life experiences and to make them active participants in the teaching/learning process (Ifeanyichukwu, Eze and Okoli, 2018). The undergraduates are adult learners and have previous knowledge on some issues which they need to bring to the present.

The questioning strategy exposes undergraduates to the unknown as a stimulus-respond technique for confirmation of ideas (Okoli and Igwegbe, 2015). This is adopted when learners are reluctant to contribute to discussion or are bored during talk to make them participate effectively. The educator could equally raise issues or fact finding tasks in entrepreneurship and instruct learners to form groups for discussion. These groups later come together again after trashing the issues out, at the expiration of allotted time to give reports. This strategy makes the students active participants in the learning process especially in acquisition of practical knowledge and skills. Questioning is a strong skill development strategy as it stimulates thinking in students and elicits responses that will lead to the proper solution of entrepreneurship problems.

Another critical strategy employed to improve the entrepreneurial skills of project management graduates is the project method. This method facilitates acquisition of entrepreneurial skills among undergraduates through application of knowledge in solving problems with little direction of the educators (Ogwo, 2006). Students are allowed to explore their environment and based on their areas of interest embark on projects that aims at showcasing their ingenuity and skill acquired in entrepreneurship. The projects may be suggested by the teacher, but they are planned and executed by the undergraduates themselves, individually or in groups within the period directed by the educator. Project method as a strategy improves student involvement and motivation in order to foster independent thinking, self-confidence, and social responsibility.

The role play strategy also involves a situation where members of a group, either individually or in smaller groups act a role in given situations to demonstrate ideas (Ifeanyichukwu, Eze and Okoli, 2018). It is very effective for skill acquisition in entrepreneurship as it appreciates and demonstrates actions necessary for success or failure of given projects. Role play stimulates active participation of learners and gets them involved in activities required for successful entrepreneurship as they will meet in their established enterprise after graduation (Ibrahim and Dandago, 2013). The facilitator should effectively direct learners earlier before the role play by explaining the objectives of the lesson. This makes learners more interested in the educative aspect of the play than the entertainment. A discussion session is also held at the end of the role play to highlight the major experiences and knowledge required to be acquired. On the other hand, the field trip strategy emphasizes on organizing educative visits to successful establishments,

entrepreneurs or institutions for first-hand information (Okoli and Ezenwafor, 2015). Field trips are made effective when well organized and combined with teachings that are in line with the concrete and direct learning experiences provided. At the end of the trip, students are engaged in group discussion to make sure that the aim of the trip was achieved.

The last emphasized strategy for improving the entrepreneurial skills of project management graduates is internship training strategy. Internship Training in the provision of entrepreneurial skills to undergraduate's entails collaborations between schools and industries for real life work experience (Ibrahim and Dandago, 2013). This form of collaboration is necessary after exposing students to theories and concepts in project management and attached to industries where they are expected to practicalize the knowledge acquired. Effectiveness of internship as a strategy for developing undergraduates entails proper planning, timely posting, organization, proper implementation, monitoring and effective supervision (Okoli and Ezenwafor, 2015). To enable students practicalise the skills taught, they must be fitted in establishments that provides services in their areas of study and with adequate facilities, equipment and machines to work with. This will help them establish such small scale enterprises to become self-reliant after graduation.

Several empirical studies have emphasized on these theorized strategies in terms of practice in many institutions worldwide. In the survey of ninety-nine (99) vocational and technical educators in Kogi State in Nigeria, Daluba and Odiba (2013) recommended provision of good learning environment, sending lecturers and instructors on in-service training,

conferences, seminars and workshops, making teaching and learning practical oriented among others as ways of facilitating entrepreneurship skills acquisition and development. In the survey of 418 lecturers in vocational and adult education programmes in universities in South-Eastern Nigeria, Agboeze, Onu and Ugwoke (2013) reported that many strategies for enhancing entrepreneurial skills of students to include debate and group discussion, solving numerical problems and puzzles, among others. In the study of 150 randomly selected final year students in three institutions in Lagos in south west Nigeria, Anumnu (2014) suggested mentorship of students during and after training, seminars and workshops on entrepreneurship for students, regular visits of students to small cottage industries in the form of field trips, establishment of appropriate culture that encourages students to create and share knowledge within and outside the school, and collaborative effort between institutions and entrepreneurship government agencies.

Entrepreneurship course or training is perceived to significantly influence the attitude and social skill of students in undertaking entrepreneurial activities (Ghazali, Ibrahim and Zainol, 2013). The study of the entrepreneurship among higher education graduates in 13 European countries by Zamfir, Lungu and Mocanu (2013) reported several entrepreneurship strategies including the use of internships, work placement as a method of teaching and learning; the use of theories and paradigms as a method of teaching and learning; the use of project and/or problem-based learning as a method of teaching and learning; the use of oral presentations by students as a method of teaching and learning; and the participation in student or other voluntary organizations. The attendance of

business and entrepreneurship courses is also perceived as a key strategy to enhancing the entrepreneurial skills of graduates of higher education (White, 2013).

2.4.3 Obstacles to the Development of the Entrepreneurial Skills

The lack of attention to the project management educational system in Ghana, over the years, has created a number of constraints for the development of the system. Major among these has been the lack of national policy framework to guide the management and implementation of the programmes in a coordinated manner. Years of poor resource allocation to the sector persists and this has resulted in weakness in the system. These include obsolete and inadequate training equipment and tools, lack of training materials, inadequate number of qualified instructors with requisite industrial practical experience, lack of linkage between training institutions and industry and lack of relevance of institutional training to the needs of industry (Akyeampong, 2010; Gondwe and Walenkamp, 2011).

In the study of entrepreneurial development of students in polytechnics, Appiah-Kwapong et al. (2017) suggested the two major challenges students face are lack of entrepreneurial skills and start-up capital. A report in Nigeria also stated absence of policy framework for youth entrepreneurship, funding, manpower and education, and entrepreneurial attitude as challenges Entrepreneurship education faces. (Unachukwu, 2009).

Lacking of experience, social relationship and initial funds have become three main obstacles for university student entrepreneurs (Zhou et al., 2012). Lacking of

entrepreneurial experience and social network have become major factors that limit the university students to start their business in the current society with rich cultural backgrounds and wide social network. In addition, hard to obtain the initial funds is another problem that student entrepreneurs must face with. Most of the funds are from their personal savings, family deposit or support from friends, few of them would get loans from the bank. The study of barriers to the entrepreneurship of graduates in Tanzania reported lack of start-up capital; lack of trusted business, partners/employees; poor technology and low quality of product and services; Limited access to credit and inhibitive banking or financial services; and negative attitude towards entrepreneurship as the main hindrances (Mwasalwiba, Dahles and Wakkee, 2012).

Financing is recognized as the most fundamental barrier to entrepreneurship (Finnerty and Krzystofik, 1985). Several researches on barriers to the entrepreneurship of graduates in various countries have also identified lack of start-up capital and general funding as crucial barrier (Birdthistle, 2008; Ledyeva et al., 2008; Shinnar et al., 2009; Smith & Beasley, 2011; Shinnar et al., 2012). Studies have also reported social barriers in the form of limited family support or entrepreneurial role models (Pruett et al., 2009). This suggests that many graduates with less interest in entrepreneurship reside in a family environment or a social structure with limited entrepreneurship presence or culture (Pruett et al., 2009). In African setting like Ghana, evidently, there is limited social support and family commitment to the entrepreneurship intentions of graduates (Martins et al., 2004). There are circumstances successful young entrepreneurs have asserted their frustration on issues related to the role of official support structures (Hulsink and Koek, 2014), while others also mention lack of

institutional support as a critical barrier to the entrepreneurial plans of graduates (Pruett et al., 2009; Giacomini et al., 2011; Smith and Beasley, 2011; Sesen and Pruett, 2014).

The many factors perceived as hurdles to the entrepreneurship of graduates include the fear of failure, lack of sufficient knowledge to start and run own business and the inadequate funds to start business (Kabui and Maalu, 2012). Besides the willingness of students to become entrepreneurs and education, the background of family is also critical factor that influences the level of entrepreneurship of undergraduates (Kumar et al., 2013). The study of Lunavath (2015) also reported societal pressure and self-confidence constraints as factors limiting entrepreneurial self-confidence of undergraduates in India. In another study, Rathna, Badrinath and Anushan (2016) reported improper market conditions, the strict legal and regulatory conditions as the difficulties of entrepreneurs. The study further indicated that the women entrepreneurs are particularly confronted by the problems of lack of information and unevenness between personal and professional life.

The study of Yaghoubi (2010) reported the expansion of colleges regardless of the quality of scientific, lack of fitness of educational content with the job market needs, traditional teaching methods that incompatible with the interests of students and less attention to learning practical skills as key barriers to entrepreneurship promotion in agriculture higher education. In Ghana, Asiedu and Nduro (2015) studied the entrepreneurial knowledge of polytechnic students and the perceived barriers to start-up businesses and reported limited knowledge of entrepreneurship supporting agencies, lack funding, lack of government support, lack of information, lack of exposure and fear of failure as the main barriers to

entrepreneurship. In another study in Ghana, Enninful, Boakye-Amponsah and Nduro (2016) reported poor knowledge of entrepreneurial support agencies, lack of government support and funding as significant entrepreneurship barriers of graphic design graduates. The study of Boateng, Boateng and Bampoe (2014) reported lack of capital, lack of skill, lack of support, lack of market opportunities and risk as the main obstacles to entrepreneurial intention of the youth in rural areas of Ghana. Furthermore, obstacles such as lack of funding, lack of business skills, bribery and corruption, strong competitors, high taxes, and high labour cost were reported as the main inhibiting factors to university students in Cameroon choosing entrepreneurship as a career (Neneh, 2014). In their study in the United Kingdom, Smith and Beasley (2011) reported lack of general business knowledge, contradictory advisory support from external agencies, lack of sector-specific mentors, lack of finance, and experience of familial entrepreneurship as perceived barriers to entrepreneurship among graduates.

The unavailability of training equipment has also been reported by several studies as a significant challenge to the development of the entrepreneurial skills of students (e.g., Umar and Ma'aji, 2010; Dasmani, 2011; Umunadi, 2011; Muthaa et al., 2012; Udofia et al., 2012; Audu, 2013). The poor state of workshop tools and equipment in Nigerian's institutions has also been reported by Audu (2013) to be major challenges to entrepreneurial development skills of students. The non-availability, poor management or the complete abandonment of the essential facilities in the workshops for effective skills acquisition were also stated by Umar and Ma'aji (2010) to have led to the persistent low entrepreneurial skills of students in Nigeria. Workshop equipment for training and

employable skills acquisition was also reported by Udofia et al. (2012) as critical challenges to entrepreneurial development of students. In a study in Ghana, Dasmani (2011) reported that entrepreneurship development of graduates is adversely affected by the inadequacy of training equipment and instructional materials. The study of Muthaa et al. (2012) also reported the inadequacy of training equipment and workshop facilities as barriers to the entrepreneurial development of students.

The teaching methods employed lecturers and tutors is also generally perceived to affect the quality of training and hence the employability skills of students (Dasmani, Anane, 2013; 2011; Audu et al., 2014; Dadi, 2014). Previous studies also report the absence of the efforts needed to attract and develop natural talents and entrepreneurial ability as the primary challenge faced by entrepreneurship educators (e.g., Zaidatol and Bagheri, 2011). About the need for and relevance of applying entrepreneurship education to students at school levels, there have been a persistent and continuous disagreement among scholars/intellectuals. The study of Boateng (2012) corroborated earlier studies like Jee-pengTan and Yoo-JeungNam (2012) and Lillis and Hogan, (1983) which all emphasized on poor perception of some courses in developing countries as critical challenge to the development of the entrepreneurial skills of students. The study of Dzigbede (2009) also reported the absence of career Guidance and Counseling service, lack of good number of trained/professional teachers, logistics stationery, equitable funding, among others as critical challenges to the development of the entrepreneurial skills of students. The study of Amedorme and Fiagbe (2013) reported limited number of technical institutions, lack of facilities and materials for training students, inadequate technical teachers and facilitators,

limited number of training institutions for technical teachers, and a difficulty in career progression as the key challenges in national development.

2.5 THEORETICAL MODEL OF ENTREPRENEURSHIP

There is high level of career planning in the context of educational system of knowledge acquisition which involves cognitive process (Pittaway and Cope, 2007). Therefore, various theories highlighting student's choice of entrepreneurial career path are elaborated in this part of the review of literature. Several studies on the entrepreneurial intentions of students in formal educational system relied on the theory of planned behaviour (e.g., Shapero and Sokol, 1982; Liñán and Santos, 2007; Liñán, Urbano, and Guerrero, 2011). This theory is underpinned on the activities within entrepreneurial process and the influence of socio-cultural environment on human behaviour. The planned behaviour theory is assumed as the basic theory employed in the prediction of a person's behaviour in the future, in the context of this study, entrepreneurial careers of project management students (Ramayah and Zainon, 2005). Besides the planned behaviour theory, other theoretical models like the Bird Model (1988), the Krueger and Carsrud entrepreneurship intention model (1993), and the social learning theory of Bandura (1997, 1982) to predict the entrepreneurial intentions of people (e.g., Veciana, Aponte and Urbano, 2005; Zaidatol and Hisyamuddin, 2009).

Based on the reliance of many studies on the planned behaviour theory, this study is also rooted and hedged by the Ajzen's theory of planned behaviour. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together

shape an individual's behavioral intentions and behaviors. The concept was proposed by Icek Ajzen in 1985 to improve on the predictive power of the theory of reasoned action by including perceived behavioral control (Ajzen, 1991). It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns, healthcare, sport management and sustainability. The theory was developed from the theory of reasoned action, which was proposed by Martin Fishbein together with Icek Ajzen in 1980. The TPB states that behavioral achievement depends on both motivation (intention) and ability (behavioral control). It distinguishes between three types of beliefs - behavioral, normative, and control. The individual's attitude, subjective norm, and perceived behavioural control are perceived to be largely formed by their behavioural beliefs, normative beliefs and control beliefs. The intentions and the actual behaviour of individuals are therefore sharpened by their attitude, norm and beliefs. In the context of this study, the entrepreneurial intentions or the general career intentions of project management students are largely built on the foundations of personal characteristics, educational system, curriculum, teaching quality and many others that this study seeks to investigate.

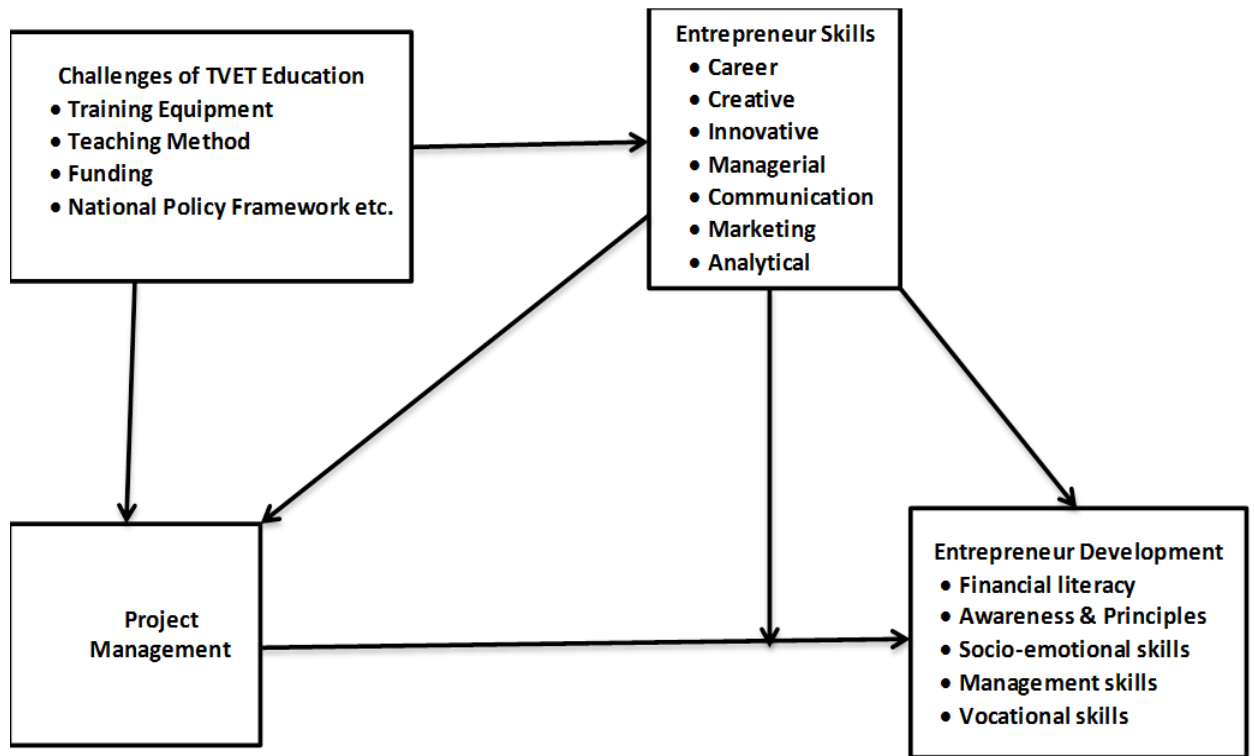
2.5.1 Theoretical Framework.

The project management programme embracing entrepreneurial educational training (EET) involves programme characteristics, and moderating variables like contextual factors and participants' characteristics. The programme characteristics of the project management programme are defined in terms of programme design, trainers and delivery mechanism, content and curriculum, and wrap-around services. The design of the project

management programme encapsulates local partnerships and selection process, source of funding and unit cost of the programme. The factors describing the trainers and the delivery process are trainers, delivery, class size, intensity and duration of service delivery. The project management programme is also characterized by content and curriculum in the form of content, curricula, individual and firm characteristics. Contextually, political, economic and cultural factors are perceived essential in the formation of the project management programme in the phase of entrepreneurial educational training. Cultural context refers to factors associated with local perceptions of entrepreneurship as well as cultural attitudes toward failure, success, and the traditional roles of certain members of society. The political context refers to the stability of local society and institutions as well as the leadership and will to promote entrepreneurship through local policies and institutions. The economic context represents the multiple economic variables that have been found to correlate with entrepreneurship outcomes. Individual factors also dictate and moderate the influence of the programme and the possible outcomes, in the context of this study, entrepreneurial development. Outcome elements in the areas of enterprise formation, employability, income and savings and network formation are also heavily dependent on the programme design. The achievement of these outcome domains is essentially dependent on the training and acquisition of entrepreneurial skills such as creative, innovative, managerial, communication, marketing and analytical. Notwithstanding the linkage between the programme and the domain outcomes, the effectiveness of the programme in Ghana has been derailed by several challenges in the areas of training equipment, teaching method, funding and national policy framework guiding the programme. The discussed concept on the basis of planned behavioural

intention of students in their choice of entrepreneurial and programme is presented in Figure 2.1.

Figure 2.1.1: Project Management and Entrepreneurial Development Relationship



Source: Author's Construct (2019)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The chapter centers and focuses on the research methodology and research methods of the study. The major areas touched were the research design, research approach, research strategy, research population, sample size calculation, sampling procedure, data collection instruments, questionnaire design, measurement items, data analysis, validity and reliability, and ethical consideration.

3.2 RESEARCH DESIGN

Research design denotes the overall strategy employed in the integration of the varying components of a study in a coherent and logical manner in order to effectively address the problem of a study (Trochim, 2006). It is the blueprint or a designed plan for collecting, measuring and analyzing the data of a study. Several types or forms of research designs are available to be chosen by researchers in the execution of their studies. There is enormous variation in the length and complexity of research design description in studies, although, an effectively designed research has the potency to identify the research problem clearly and justify its selection, particularly in relation to any valid alternative designs that could have been used, review and synthesize previously published literature associated with the research problem, clearly and explicitly specify hypotheses, effectively describe the data and describe the methods of analysis (Creswell and Creswell, 2018). Among them are case study design, action research design, causal design, cohort design, cross-sectional design, descriptive design, experimental design, exploratory design, historical design, meta-

analytical design, longitudinal design, observational design, mixed-method design, philosophical design, systematic review and sequential design (University of Southern California Libraries, 2016). Correlational, causal, experimental, and quasi-experimental designs are largely quantitative whereas case study, historical, meta-analytical, systematic review, philosophical, observational, narrative, phenomenological and grounded theory are more qualitative in design (Creswell, 2015). Thus, the main basis of selection of a research design is the nature of the research problem and the type of research questions that define the research approach (Creswell, 2013). As this study primarily seeks to determine the strategies in place to improve the entrepreneurial skills of project management graduates, the descriptive design, which is largely quantitative, is employed.

3.3 RESEARCH APPROACH

Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation (Creswell, 2015). The two broad categories of research approaches are approach of data collection and approach of data analysis or reasoning (Creswell, 2013). On the basis of data collection, the types of research approaches available are qualitative, quantitative and mixed method approaches (Creswell, 2015). These approaches are not dichotomous, polarized or discrete as they first appear, but are rather varying ends of a continuum (Newman and Benz, 1998). In terms of approach, studies are either more qualitative or more quantitative. In the middle of these two continuums is the mixed method approach. The differentiation between these three forms of research approaches is based on the philosophical assumptions of the researcher, the employed research strategies, and specific

study methods. The assumption of single truth devoid of subjective opinion and influence of the researcher perceived as post-positivism or realism are more related to quantitative studies (Winit-Watjana, 2016). Nonetheless, the assumption of subjective truth influenced by the opinion of the researcher perceived as interpretivism is largely related to qualitative studies (Saunders et al., 2009). In the middle of this continuum is the pragmatic philosophy that is related to the mixed-method approach. As this study is descriptive in design, and further seeks to test existing theories on entrepreneurial development and so tends to be more positivist or post-positivist in philosophy and hence quantitative in approach. As researchers with traditional natural scientific views or positivist in philosophy largely rely on the deductive approach, this study is also based on deductive reasoning in terms of approach based on data analysis strategies.

3.4 RESEARCH STRATEGY

The researcher's choice of strategy is crucial in addressing the research questions in a valuable manner that is congruent with the purpose of research, the questions and the overall research topic (Palliative Medicine, 2004). Most research strategies are perceived to be line with deductive reasoning (Saunders, Lewis and Thornhill, 2009). Notwithstanding the need to choose the appropriate strategies in research, Saunders, Lewis and Thornhill (2009) further emphasized that there is no inferior or superior research strategy type. As the usage of research strategies depends on the field of study of the researcher, all strategies are deemed significant to every researcher in studies. Research strategies are largely in seven forms including case study, survey, experimental, action, ethnography, archival, and grounded theory (Sarantakos, 2012). The research approaches

employed in inductive or qualitative research approaches include action, ethnographic (Gray, 2014). On the other hand, deductive or quantitative research approaches embraces the experimental and survey research strategies (Gray, 2014). The research strategies based on mixed approach (deductive and inductive approach) are case study and grounded theory.

As this study is deemed more quantitative and deductive in approach, the survey strategy was employed in answering the defined research questions. This strategy is further deemed appropriate as it enables the researcher to collect huge amount of data from a sizeable target population. Data from this strategy can also be analysed using both inferential and descriptive statistical tools.

3.5 RESEARCH POPULATION

Generally, population denotes the number of people within a given boundary (Banerjee and Chaudhury, 2010). In research studies, two types of populations are available – target and accessible population. The target population of a study denotes the entire group of persons or objects to which researchers are interested in generalizing the conclusions (Asiamah, Mensah and Oteng-Abayie, 2017). Thus, it is the group a researcher hopes to understand. On the other hand, the accessible population is a subset of the target population and denotes the population to which the researchers can apply their conclusions or actually measure (Asiamah, Mensah and Oteng-Abayie, 2017). The accessible population also known as the study population forms the base for the selection of the sample for the study. In the context of this study, the target population constitutes all project management graduates in Ghana. On the other hand, the accessible or study population constitutes all

project management graduates registered with PMP in Ghana. From the Project Management Institute site, 268 project management graduates are registered with PMP.

3.5.1 Sample Size Calculation

The calculation of the general sample size of the project management professionals was done using the De Vaus (2002) sample size proportion formula. From the total study population of 268 project management professionals registered with PMP, the calculated sample size was 160 project management graduates. Thus, the total calculated sample size using the De Vaus (2002) sample size formula was 160. The De Vaus (2002) sample size and the calculation procedure is shown below.

$$n = \frac{N}{1 + N(\varepsilon^2)}; n = \frac{268}{1 + 268(0.05^2)}; n = 268 / 1.67; n = 160 \text{ Project Managers}$$

where :

n = Sample size

N = Population

ε = Error Margin

3.5.2 Sampling Procedure

In this study, simple random by balloting procedure was employed in selecting 160 project management professionals or graduates from the total professionals of 268. The sample frame was obtained from the project management institute site. From the frame, all registered members of the PMP were represented with strips or pieces of paper and shuffled in a bowl. The required number or sample size of 160 was drawn from the bowl in

sequential manner without replacement. The simple random method was employed since all the project management professionals or graduates registered with PMP were perceived as homogeneous.

3.6 DATA COLLECTION INSTRUMENT

The type(s) of data collection instrument(s) employed in a specific study depends on the design and the research approach. Studies that are largely qualitative involve the collection of data using instruments like interview guide and observation whereas quantitative studies often involve the usage of instruments like questionnaire and structured interview. As this study is quantitative in approach and embraces the survey strategy, the questionnaire instrument was employed.

3.6.1 QUESTIONNAIRE DESIGN

Data in this study was collected using questionnaire instrument. The structured form of questionnaire that constitutes largely close-ended questions was chosen for the study. The question types were multiple choice and Likert scale in categorical form. The developed questionnaire for the project management graduates was designed in four parts. The Section A was made of questions soliciting for personal information of the project management graduates. The variables in this section constituted the sex of the respondent, age of the respondent, the highest educational qualification and working experience. The Section B of the questionnaire also employed several statements in an attempt to measuring the entrepreneurial skills required in the entrepreneurial development of project management graduates. The set of entrepreneurial skills examined in this section were

career skills, creative skills, innovative skills, managerial skills, communication skills, marketing skills and analytical skills. The Section C of the questionnaire constituted statements examining or identifying the possible strategies for enhancing the entrepreneurial development of project management graduates in Ghana. Eighteen strategies identified in the existing literature are employed in this section of the questionnaire. The Section D of the questionnaire also employed eighteen measurement items or variables in examining or identifying the challenges or the obstacles to the development of the entrepreneurial skills of project management graduates.

3.6.2 MEASUREMENT OF CONSTRUCTS

The measurement items employed in the designing of the questionnaire were largely employed from theory and empirical studies. A total of 54 items or variables were employed in the measurement of the various constructs of the study. The entrepreneurial skills of graduates were measured using 16 items or variables. The key components of the entrepreneurial skills measured were career skills (2 items), creative skills (4 items), innovative skills (2 items), managerial skills (2 items), communication skills (3 items), marketing skills (2 items) and analytical skills (1 item). These entrepreneurial skills measurement items were adopted from previous studies on entrepreneurial development (e.g., Osuagwu, 2006; Mullins, 2010; Agboeze, Onu and Ugwoke, 2013; Daluba and Odiba, 2013; Samsudi, Widodo and Margunani, 2016).

Furthermore, the strategies for improving the entrepreneurial skills of graduates were measured using 17 items or factors. The considered strategies were demonstration,

explanation strategy, lecture using buzz group, questioning, project method, role play strategy, field trip strategy, internship training strategy and many others. The items for measuring entrepreneurial development strategies were adopted from several previous studies (e.g., Agboeze, Onu and Ugwoke, 2013; Daluba and Odiba, 2013; Ibrahim and Dandago, 2013; Okoli and Ezenwafor, 2015; Ifeanyichukwu, Eze and Okoli, 2018). The obstacles to the entrepreneurial development of graduates were measured using 17 items or factors. The considered obstacles were inadequate funding, inadequate machine, tools and materials, unavailability of consumable materials for practicals, poor maintenance culture, poor condition of service for teachers, lack of relevant and up-to-date text books, inadequate workshops/laboratories, poor teachers' skills in ICT and many others. The items for measuring the obstacles of the development of the entrepreneurial skills of project management graduates were adopted from several previous studies (e.g., Akyeampong, 2010; Dasmani, 2011; Gondwe and Walenkamp, 2011; Udofia Et al., 2012; Ferej, Kitainge and Ooko. 2012; Mbugua, Muthea and Sang, 2012; Karemu and Gongera, 2014; Githinji and Kigwilu, 2015; Appiah-Kwapong et al., 2017).

3.7 METHOD OF DATA ANALYSIS

Data collected through the structured questionnaire was edited, coded and fed to the statistical package for social sciences (SPSS) for the appropriate statistical analysis. Inferential and descriptive statistical tools were employed in examining the objectives of the study. The strategies for developing entrepreneurial skills were analyzed using measures of dispersion like mean and standard deviation. The challenges of the project management graduates in entrepreneurial development were identified and ranked using

descriptive instruments and Kendall's rank test (Non-parametric test). The strategies of entrepreneurial development and the entrepreneurial skills needed by project management graduates were examined using relative importance index (RII) method. Relative Importance Index (RII) was employed to determine the relative importance of the various entrepreneurial development strategies and the critical entrepreneurial skills using five-point Likert scale. The formula employed is shown below;

$$RII = \frac{\sum W}{A * N}$$

where W , represents the rating or weight given to each factor by the respondent, A is the highest weight (5 for this study) and N represents the total number of samples.

3.8 VALIDITY AND RELIABILITY

The extent to which an instrument measures what it intends to measure is referred to as validity. (Blumberg et al., 2005; Mohajan, 2017). It is the degree to which the results are truthful. The face validity of the measurement instrument was ensured through consultation with policy makers and policy implementers regarding the appropriate items to employ in the measurement of the main constructs of the study. Construct validity was also ensured through adoption of measurement items already tested in previous studies. The internal validity of the collected data was also ensured through factor analysis through the principal component method.

The reliability refers to a measurement that supplies consistent results with equal values (Blumberg et al., 2005). It measures consistency, precision, repeatability, and trustworthiness of a research (Chakrabarty, 2013). The reliability of the items employed

in the measurement of the constructs of the study was ensured through a pilot survey. The internal reliability of the questionnaire was also tested through Cronbach Alpha analysis.

3.9 ETHICAL CONSIDERATION

Ethical considerations in research are critical. Ethics are the norms or standards for conduct that distinguish between right and wrong (Creswell, 2015). They help to determine the difference between acceptable and unacceptable behaviors on the part of the researcher. The researcher received approval from the Institutional Review Board (IRB) of the school of graduate studies, KNUST. An introductory letter was also sent to executive of the PMP to seek for approval and their inclusion in the study. All selected participants were also presented with consent forms to seek for their approval to be included in the study. The study also ensured high level of confidentiality and anonymity of the participants through the exclusion of their names and personal information perceived too sensitive. The researcher also avoided any form of data falsification and presented a copy of the final report to PMP upon request.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 INTRODUCTION

The chapter presents the study data, analysis and discusses the result. The tabular presentation employed descriptive statistics, relative importance index (RII) and the Kendall's rank test method. The themes discussed were the bio-data/socio-characteristics of respondent, entrepreneurship skills required by project management professionals/students, strategies for entrepreneurship development and the obstacles to the development of the entrepreneurial skills.

4.2 BIO-DATA/SOCIO-CHARACTERISTICS OF RESPONDENT

This section of the study discusses the bio-data or the socio-demographic characteristics of the respondent. The socio-characteristic variables discussed were sex of the respondent, age of respondent, the highest educational qualification of the respondent, and the working experience of the respondent. The result of socio-demographic characteristic distribution of the respondent is presented in Table 4.1.

The gender distribution of the respondent in Table 4.1 shows that the majority (58.1%) were female whereas 41.9% were males. The age distribution of the respondent shows that 6.9% were below 25 years, 41.9% were between 26 and 30 years, 30.0% were between 36 and 40 years, 14.4% were between 41 and 45 years and 6.9% were more than 45 years. Evidently, the large proportion of the respondent were between 26 and 40 years, the active economic population of Ghana. The highest educational qualification of the majority

(56.9%) of the respondent was first degree, whereas 43.1% have highest educational qualification of master's degree in project management.

Table 4.1: Socio-Demographic Characteristics of Respondent

Bio-Data	Category	Frequency (N=160)	Percent (%)
Educational Qualification			
	First Degree	91	56.9
	Master Degree	69	43.1
Working Experience			
	1-3	17	10.6
	4-6	45	28.1
	7-9	28	17.5
	> 9 years	70	43.8

Source: Field Survey (2019)

From Table 4.1, the distribution of the respondent also shows that 10.6% have 1 to 3 years working experience, 28.1% have 4 to 6 years of working experience, 17.5% have 7 to 9 years of working experience, and 43.8% have more than 9 years of working experience. Thus, about 61% of the respondent have more than 7 years of working experience and hence are capable of providing valid and reliable information on the subject.

4.3 ENTREPRENEURSHIP SKILLS REQUIRED BY PROJECT MANAGEMENT PROFESSIONALS

The entrepreneurship skills required by project management graduates are examined in this section of the study. The components of entrepreneurship skills discussed were career skills, creative skills, innovative skills, communication skills, marketing skills and analytical skills. The respondents were presented with 16 items to indicate the extent of their necessity to the entrepreneurship skills development of project management graduates using a five pointer likert scale. The result is presented in Table 4.2 through both descriptive statistical method and relative importance index (RII).

Table 4.2 shows that the respondent perceived the ability to assess oneself as a high entrepreneurial skills required by all project management professionals to broaden their entrepreneurial skills (\bar{x} =3.90). The ability to assess oneself with RII value of 0.780 is ranked as the 14th in terms of the entrepreneurial skills required by all project management students and professionals. The ability to plan techniques and self-directed learning knowledge, such computer literacy is also perceived as a high entrepreneurial skill required by project management students and professionals (\bar{x} =4.29). The ability to plan techniques and self-directed learning knowledge, such computer literacy with RII value of 0.859 is ranked as the 3rd in terms of the entrepreneurial skills required by all project management students and professionals. Thus, the respondent perceived career skills as an essential entrepreneurial skills required by project management students and professionals (\bar{x} =4.10). These findings are consistent with previous studies that also report career skills as critical

to the entrepreneurial development skills of graduates (e.g., Idowu 2004; Adepoju and Adedeji 2012; Mundra, 2012).

Table 4.2: Entrepreneurship Skills Required by Project Management Professionals

Entrepreneurial Skills	RII	Rank	Mean
Career Skills			4.10
Ability to assess self	0.780	14th	3.90
Ability to plan techniques & self-directed learning knowledge, such computer literacy, etc.	0.859	3rd	4.29
Creative Skills			4.20
Ability to visualize and identify new problem areas in the society	0.853	4th	4.26
Ability to generate new ideas or concepts in that line	0.808	9th	4.04
Ability to apply knowledge acquired in real life events	0.875	2nd	4.37
Ability to apply knowledge acquired with others	0.824	8th	4.12

Innovative Skills			3.97
Ability to generate creative ideas in specific content to solve problem in society	0.794	11th	3.97
Ability to apply creative ideas in specific content to solve problem in society	0.793	12th	3.96
Managerial Skills			4.12
Ability to define goals and objectives	0.801	10th	4.01
Ability to plan and stipulate strategies to organize, motivate, direct and control resources to attain stated objectives	0.846	5th	4.23
Communication Skills			4.24
Ability to use relevant language to negotiate, persuade and convince	0.825	7th	4.12
Ability to work in a team	0.889	1st	4.44

Ability in brainstorming interaction networking	0.830	6th	4.15
Marketing Skills			3.85
Ability of book keeping and accounting practices	0.746	16th	3.73
Ability to integrate business logistics to increase sale of goods and services	0.770	15th	3.85
Analytical Skills			3.96
Ability of numeracy, generation and analysis of data for relevant decision making	0.793	12th	3.96

Scale: [Very High Extent [5], High [4], Undecided [3], Low [2], Very Low [1]]

Source: Field Survey (2019)

Table 4.2 shows that the respondent perceived the ability to visualize and identify new problem areas in the society as a high entrepreneurial skills required by all project management professionals to broaden their entrepreneurial skills ($\bar{x}=4.26$). The ability to visualize and identify new problem areas in the society with RII value of 0.853 is ranked as the 4th in terms of the entrepreneurial skills required by all project management students and professionals. The ability to generate new ideas or concepts in that line is also perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=4.04$). The ability to generate new ideas or concepts in that line with RII value of 0.808 is ranked as the 9th in terms of the entrepreneurial skills required by all project management students and professionals. The ability to apply knowledge acquired in real life events is also perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=4.37$). The ability to apply knowledge acquired in real life events with RII value of 0.875 is ranked as the 2nd in terms of the entrepreneurial skills required by all project management students and professionals. The ability to apply knowledge acquired with others is also perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=4.12$). The ability to apply knowledge acquired with others with RII value of 0.824 is ranked as the 8th in terms of the entrepreneurial skills required by all project management students and professionals. Thus, the respondent perceived creative skills as an essential entrepreneurial skills required by project management students and professionals ($\bar{x}=4.10$). These findings are consistent with previous studies that also report creative skills as critical to the entrepreneurial development skills of graduates (e.g., Adepoju and Adedeji 2012; Mundra, 2012; Daluba and Odiba (2013; Ghazali, Ibrahim and Zainol, 2013).

Table 4.2 shows that the respondent perceived the ability to generate creative ideas in specific content to solve problem in society as a high entrepreneurial skills required by all project management professionals to broaden their entrepreneurial skills ($\bar{x}=3.97$). The ability to generate creative ideas in specific content to solve problem in society with RII value of 0.794 is ranked as the 11th in terms of the entrepreneurial skills required by all project management students and professionals. The ability to apply creative ideas in specific content to solve problem in society is also perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=3.96$). The ability to apply creative ideas in specific content to solve problem in society with RII value of 0.793 is ranked as the 12th in terms of the entrepreneurial skills required by all project management students and professionals. Thus, the respondent perceived innovative skills as an essential entrepreneurial skills required by project management students and professionals ($\bar{x}=3.97$). These findings are consistent with previous studies that also report innovative skills as critical to the entrepreneurial development skills of graduates (e.g., Osuagwu, 2006; Adepoju and Adedeji 2012; Mundra, 2012; Daluba and Odiba, 2013).

Table 4.2 shows that the respondent perceived the ability to define goals and objectives as a high entrepreneurial skills required by all project management professionals to broaden their entrepreneurial skills ($\bar{x}=4.01$). The ability to define goals and objectives with RII value of 0.801 is ranked as the 10th in terms of the entrepreneurial skills required by all project management students and professionals. The ability to plan and stipulate strategies to organize, motivate, direct and control resources to attain stated objectives is also

perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=4.23$). The ability to plan and stipulate strategies to organize, motivate, direct and control resources to attain stated objectives with RII value of 0.846 is ranked as the 5th in terms of the entrepreneurial skills required by all project management students and professionals. Thus, the respondent perceived managerial skills as an essential entrepreneurial skills required by project management students and professionals ($\bar{x}=4.12$). This finding is consistent with previous studies that also report managerial skills as critical to the entrepreneurial development skills of graduates (e.g., Idowu 2004; Adepoju and Adedeji 2012; Mundra, 2012; Daluba and Odiba, 2013; Samsudi, Widodo and Margunani, 2016).

Table 4.2 shows that the respondent perceived the ability to use relevant language to negotiate, persuade and convince as a high entrepreneurial skills required by all project management professionals to broaden their entrepreneurial skills ($\bar{x}=4.12$). The ability to use relevant language to negotiate, persuade and convince with RII value of 0.825 is ranked as the 7th in terms of the entrepreneurial skills required by all project management students and professionals. The ability to work in a team is also perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=4.44$). The ability to work in a team with RII value of 0.889 is ranked as the 1st in terms of the entrepreneurial skills required by all project management students and professionals. The ability in brainstorming interaction networking is also perceived as a high entrepreneurial skill required by project management students and professionals ($\bar{x}=4.15$). The ability in brainstorming interaction networking with RII value of 0.830 is ranked as the 6th in terms

of the entrepreneurial skills required by all project management students and professionals. Thus, the respondent perceived communication skills as an essential entrepreneurial skills required by project management students and professionals (\bar{x} =4.24). This finding is consistent with previous studies that also report communication skills as critical to the entrepreneurial development skills of graduates (e.g., Idowu 2004; Adepoju and Adedeji 2012; Mundra, 2012; Agboeze, Onu and Ugwoke, 2013; Samsudi, Widodo and Margunani, 2016).

Table 4.2 shows that the respondent perceived the ability of book keeping and accounting practices as a high entrepreneurial skills required by all project management professionals to broaden their entrepreneurial skills (\bar{x} =3.73). The ability of book keeping and accounting practices with RII value of 0.746 is ranked as the 16th and least in terms of the entrepreneurial skills required by all project management students and professionals. The ability to integrate business logistics to increase sale of goods and services is also perceived as a high entrepreneurial skill required by project management students and professionals (\bar{x} =3.85). The ability to integrate business logistics to increase sale of goods and services with RII value of 0.770 is ranked as the 15th in terms of the entrepreneurial skills required by all project management students and professionals. Thus, the respondent perceived marketing skills as an essential entrepreneurial skills required by project management students and professionals (\bar{x} =3.85). Nonetheless, marketing skills is the least of importance in terms of the entrepreneurial skills required by the project management professionals and students as indicated by the respondent. This finding is consistent with previous studies that also report communication skills as critical to the entrepreneurial

development skills of graduates (e.g., Idowu 2004; Adepoju and Adedeji 2012; Daluba and Odiba, 2013; Ghazali, Ibrahim and Zainol, 2013; Samsudi, Widodo and Margunani, 2016). The ability of numeracy, generation and analysis of data for relevant decision making is also perceived as a high entrepreneurial skill required by project management students and professionals (\bar{x} =3.96). The ability of numeracy, generation and analysis of data for relevant decision making with RII value of 0.793 is ranked as the 12th in terms of the entrepreneurial skills required by all project management students and professionals.

4.4 STRATEGIES FOR ENTREPRENEURSHIP DEVELOPMENT

The perceived effective strategies for the development of the entrepreneurial skills of the project management graduates are discussed in this part of the study. The respondents were presented with 17 items to indicate the extent of their perceived effectiveness as strategies for the development of the entrepreneurship skills of project management graduates using a five pointer likert scale. The result is presented in Table 4.2 through both descriptive statistical method and relative importance index (RII).

Table 4.3 shows that the respondent agreed to the provision of environment and situations that encourage the spirit of physical and intellectual discovery as an important strategy for entrepreneurial development among project management students and professionals (\bar{x} =4.00). The provision of environment and situations that encourage the spirit of physical and intellectual discovery as a strategy for entrepreneurial development with RII value of 0.875 was ranked first and hence deemed the most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent

with the studies of Pruett et al. (2009) and Daluba and Odiba (2013) that reported good learning environment as a strategy critical to the entrepreneurial development of graduates.

Table 4.3: Strategies for Entrepreneurship Development

Strategies	RII			
	Weight	RII	Rank	Mean
Providing environment & situations that encourage the spirit of physical and intellectual discovery.	700	0.875	1st	4.00
Application of debate and group discussion techniques.	698	0.873	2nd	3.96
Use of Socratic discussion technique in instructional delivery.	688	0.860	3rd	3.56
Use of collaborative learning technique to promote students interactions.	655	0.819	4th	3.93
Writing for concise, persuasive and effective inferences	649	0.811	5th	3.86
Solving numerical problems and puzzles	635	0.794	6th	3.93
Building categories about issues, information and problems.	625	0.781	7th	3.71
Teaching for transfer of gained knowledge to other situations	609	0.761	8th	3.82
Allowing students to summarize and predict what would happen next in a text, play and discussion.	608	0.760	9th	3.82
Utilization of visual aids in instructional discovery to encourage critical thought process.	605	0.756	10th	3.79

Requiring from students justification and proofs for ideas, information and proposals	600	0.750	11th	3.75
Making instructional delivery student centred, and the teacher as the facilitator	599	0.749	12th	3.89
Critical analysis and evaluation of assumptions, issues and problems.	598	0.748	13th	4.07
Asking open ended questions to encourage analytical, creative and innovative thinking.	582	0.728	14th	4.00
Allowing students to identify real life problems about objects, issues and tasks.	508	0.635	15th	3.89
Confronting students with alternatives and thought provoking questions	497	0.621	16th	3.68
Application of cooperative learning techniques, peer tutoring and paired problem solving	399	0.499	17th	3.96

Rank: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.3 shows that the respondent also agreed to application of debate and group discussion techniques as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.96$). The application of debate and group discussion techniques as a strategy for entrepreneurial development with RII value of 0.873 was ranked as the second most important strategy in entrepreneurial development of project management professionals and students. The respondent also agreed to usage of Socratic discussion technique in instructional delivery as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.56$). The Socratic discussion technique in instructional delivery as a strategy for entrepreneurial development with RII value of 0.860 was ranked as the third most important strategy in entrepreneurial development of project management professionals and students. These findings are consistent with previous studies that also reported group discussion technique as essential strategy in entrepreneurial skills development of graduates (e.g., Agboeze, Onu and Ugwoke, 2013; Ifeanyichukwu, Eze and Okoli, 2018).

The respondent also agreed to usage of collaborative learning technique to promote students interactions as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.93$). The usage of collaborative learning technique to promote students interactions as a critical strategy for entrepreneurial development with RII value of 0.819 was ranked as the fourth most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent with the study of Ibrahim and Dandago (2013) that also emphasized

on collaborative learning technique as critical strategy to the entrepreneurial skills development of graduates.

Table 4.3 shows that the respondent agreed to the writing for concise, persuasive and effective inferences as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.86$). The writing for concise, persuasive and effective inferences as a strategy for entrepreneurial development with RII value of 0.811 was ranked as the fifth most important strategy in entrepreneurial development of project management professionals and students. The respondent also agreed to solving numerical problems and puzzles as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.96$). The solving of numerical problems and puzzles as a strategy for entrepreneurial development with RII value of 0.794 was ranked as the sixth most important strategy in entrepreneurial development of project management professionals and students. These findings are consistent with previous studies that also reported writing for concise, persuasive and effective inferences, solving numerical problems and puzzles as an essential strategy for entrepreneurial skill development of project management graduates (e.g., Agboeze, Onu and Ugwoke, 2013; Okoli and Ezenwafor, 2015; Ifeanyichukwu, Eze and Okoli, 2018).

The respondent also agreed to building categories about issues, information and problems as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.71$). The building of categories about issues, information

and problems as a strategy for entrepreneurial development with RII value of 0.781 was ranked as the seventh most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent with the study of Okoli and Ezenwafor, (2015) that also reported building categories about issues, information and problems as an important strategy for entrepreneurial development. The respondent also agreed to teaching for transfer of gained knowledge to other situations as an important strategy for entrepreneurial development among project management students and professionals (\bar{x} =3.82). The teaching for transfer of gained knowledge to other situations as a critical strategy for entrepreneurial development with RII value of 0.761 was ranked as the eighth most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent with previous studies that also reported emphasis on practical skills as a critical strategy in the development of the entrepreneurial skills of graduates (e.g., Daluba and Odiba, 2013; Okoli and Ezenwafor, 2015; Ifeanyichukwu, Eze and Okoli, 2018).

Table 4.3 shows that the respondent agreed to allowing students to summarize and predict what would happen next in a text, play and discussion as an important strategy for entrepreneurial development among project management students and professionals (\bar{x} =3.82). Allowing students to summarize and predict what would happen next in a text, play and discussion as a strategy for entrepreneurial development with RII value of 0.760 was ranked as the ninth most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent with the study of Agboeze, Onu and Ugwoke (2013) that also emphasized on summarizing and predicting

what would happen next in a text, play and discussion as an important strategy for entrepreneurial development among project management.

The respondent also agreed to the utilization of visual aids in instructional discovery to encourage critical thought process as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.79$). The utilization of visual aids in instructional discovery to encourage critical thought process as a strategy for entrepreneurial development with RII value of 0.756 was ranked as the tenth most important strategy in entrepreneurial development of project management professionals and students. The respondent also agreed to requiring from students justification and proofs for ideas, information and proposals as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=3.75$). Requiring from student's justification and proofs for ideas, information and proposals as a strategy for entrepreneurial development with RII value of 0.750 was ranked as the eleventh most important strategy in entrepreneurial development of project management professionals and students. These findings are consistent with previous studies that also emphasized on the utilization of visual aids in instructional discovery to encourage critical thought process and requiring from student's justification and proofs for ideas, information and proposals as an important strategy for entrepreneurial development (e.g., Okoli and Igwegbe, 2015; Ifeanyichukwu, Eze and Okoli, 2018)

The respondent also agreed to making instructional delivery student centred, and the teacher as the facilitator as an important strategy for entrepreneurial development among

project management students and professionals ($\bar{x}=3.89$). Making instructional delivery student centred, and the teacher as the facilitator as a critical strategy for entrepreneurial development with RII value of 0.749 was ranked as the twelfth most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent with previous studies that also emphasized on instructional delivery student centered in the form of discussion as an important strategy for entrepreneurial development (e.g., Agboeze, Onu and Ugwoke, 2013; Ifeanyichukwu, Eze and Okoli, 2018).

Table 4.3 shows that the respondent agreed to critical analysis and evaluation of assumptions, issues and problems as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=4.07$). Critical analysis and evaluation of assumptions, issues and problems as a strategy for entrepreneurial development with RII value of 0.748 was ranked as the thirteenth most important strategy in entrepreneurial development of project management professionals and students. The respondent also agreed to asking open ended questions to encourage analytical, creative and innovative thinking as an important strategy for entrepreneurial development among project management students and professionals ($\bar{x}=4.00$). The asking of open ended questions to encourage analytical, creative and innovative thinking as a strategy for entrepreneurial development with RII value of 0.728 was ranked as the fourteenth most important strategy in entrepreneurial development of project management professionals and students. These findings are consistent with the study of Ifeanyichukwu, Eze and Okoli (2018) that also reported problem solving strategies in the form of critical analysis and

evaluation of assumptions, issues and encourage analytical, creative and innovative thinking as an important strategy for entrepreneurial development.

The respondent also agreed to allowing students to identify real life problems about objects, issues and tasks as an important strategy for entrepreneurial development among project management students and professionals (\bar{x} =3.89). Allowing students to identify real life problems about objects, issues and tasks as a strategy for entrepreneurial development with RII value of 0.635 was ranked as the fifteenth most important strategy in entrepreneurial development of project management professionals and students. This finding is consistent with the study of Ifeanyichukwu, Eze and Okoli (2018) that also reported problem solving strategy in the form of identify real life problems about objects, issues and tasks as an important strategy for entrepreneurial development. The respondent also agreed to confronting students with alternatives and thought provoking questions as an important strategy for entrepreneurial development among project management students and professionals (\bar{x} =3.68). Confronting students with alternatives and thought provoking questions as a critical strategy for entrepreneurial development with RII value of 0.621 was ranked as the sixteenth most important strategy in entrepreneurial development of project management professionals and students. The respondent also agreed to the application of cooperative learning techniques, peer tutoring and paired problem solving as an important strategy for entrepreneurial development among project management students and professionals (\bar{x} =3.96). Nonetheless, the application of cooperative learning techniques, peer tutoring and paired problem solving as a critical strategy for entrepreneurial development with RII value of 0.499 was ranked as the seventh and the least important

strategy in entrepreneurial development of project management professionals and students. These findings are consistent with previous studies that also emphasized on the application of cooperative learning techniques, peer tutoring and paired problem solving as an important strategy for entrepreneurial development (e.g., Agboeze, Onu and Ugwoke, 2013; Ifeanyichukwu, Eze and Okoli, 2018)

4.5 OBSTACLES TO THE DEVELOPMENT OF THE ENTREPRENEURIAL SKILLS

The perceived obstacles to the development of the entrepreneurial skills of the project management graduates are discussed in this part of the study. The respondents were presented with 17 items to indicate the extent of their perceived effectiveness as strategies for the development of the entrepreneurship skills of project management graduates using a five pointer likert scale. The result is presented in Table 4.4 through both descriptive statistical method and Kendall's rank test. The Kendall's coefficient of concordance method was employed in ranking the challenges as there were more than three judges or respondent.

Table 4.4 shows that the respondent agreed or perceived limited funds for youth's start-up and business expansion as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=4.11$, $SD=1.10$). Thus, limited funds for youth's start-up and business expansion with mean rank of 10.55 was ranked as the highest and most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. This finding is consistent with several

studies in the existing literature that also emphasizes on limited funds for youth's start-up and business expansion as an obstacle to the entrepreneurial development of graduates (e.g., Birdthistle, 2008; Ledyaeva et al., 2008; Shinnar et al., 2009; Smith and Beasley, 2011; Shinnar et al., 2012; Zhou et al., 2012; Boateng, Boateng and Bampoe, 2014; Appiah-Kwapong et al., 2017).

The respondent also agreed or perceived the theoretical based curriculum against practical skill acquisition as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.89$, $SD=1.39$). Thus, theoretical based curriculum against practical skill acquisition with mean rank of 10.50 was ranked as the second most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the inability of the system of education to produce talented workforce as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.71$, $SD=1.41$). Thus, the inability of the system of education to produce talented workforce with mean rank of 9.91 was ranked as the third most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. These findings are consistent with previous studies that also emphasize on less attention to learning practical skills and the inability of the system of education to produce graduates with entrepreneurial skills as major challenges to the entrepreneurial development of graduates (e.g., Yaghoubi, 2010; Asiedu and Nduro, 2015; Enniful, Boakye-Amponsah and Nduro, 2016; Appiah-Kwapong et al., 2017).

Table 4.4: Rank of Obstacles to the Development of the Entrepreneurial Skills

Obstacles	Kendall's Rank Test			
	Mean	SD	Mean Rank	Rank
Limited funds for youth's start-up and business expansion	4.11	1.10	10.55	1st
Theoretical based curriculum against practical skill acquisition	3.89	1.39	10.50	2nd
System of education is not producing talented workforce	3.71	1.41	9.91	3rd
No loan facilities for graduates to establish their businesses	3.75	1.37	9.88	4th
Inadequate infrastructural facilities	3.75	1.20	9.80	5th
There is little or limited programme design for entrepreneurship education	3.79	1.10	9.39	6th
Inadequate equipment and technology	3.71	1.11	9.30	7th
Inadequate workshops/seminars	3.68	1.30	9.23	8th
Inadequate teachers for entrepreneurship education	3.61	1.28	9.05	9th
Limited funds for teachings in practical terms for entrepreneurial education	3.61	1.28	8.61	10th
Performance of graduates not measurable to industrial requirements	3.46	1.31	8.52	11th
Poor teachers' skills in ICT	3.57	1.16	8.43	12th
Lack of relevant and up-to-date text books	3.61	1.22	8.39	13th
Economic pressure from parents	3.57	1.06	8.29	14th
The absence of entrepreneurial drive among students	3.36	1.19	8.20	15th
Ghanaian culture does not respect risk-taking	3.32	1.27	8.04	16th
There is limited openness and linkages with innovation systems in other countries	3.07	1.21	6.91	17 th

Rank: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.4 shows that the respondent agreed or perceived absence of loan facilities for graduates to establish their businesses as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.75$, $SD=1.37$). Thus, the absence of loan facilities for graduates to establish their businesses with mean rank of 9.88 was ranked as the fourth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the inadequacy of infrastructural facilities as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.75$, $SD=1.20$). Thus, the inadequacy infrastructural facilities with mean rank of 9.80 was ranked as the fifth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the limited programme design for entrepreneurship education as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.79$, $SD=1.10$). Thus, limited programme design for entrepreneurship education with mean rank of 9.39 was ranked as the sixth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the inadequacy of equipment and technology as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.71$, $SD=1.11$). Thus, inadequate equipment and technology with mean rank of 9.30 was ranked as the seventh most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. These findings are consistent with previous studies that also emphasize on absence of loan facilities for graduates, inadequacy of infrastructural facilities, limited

programme design for entrepreneurship education and inadequate equipment and technology as major challenges to the entrepreneurial development of graduates (e.g., Unachukwu, 2009; Mwasalwiba, Dahles and Wakkee, 2012; Zhou et al., 2012; Appiah-Kwapong et al., 2017).

Table 4.4 shows that the respondent agreed or perceived inadequate workshops/seminars as a major obstacle to the development of the entrepreneurial skills of project management students and professionals (\bar{x} =3.68, SD=1.30). Thus, inadequate workshops/seminars with mean rank of 9.23 was ranked as the eighth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the inadequate teachers for entrepreneurship education as a major obstacle to the development of the entrepreneurial skills of project management students and professionals (\bar{x} =3.61, SD=1.28). Thus, inadequate teachers for entrepreneurship education with mean rank of 9.05 was ranked as the ninth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the limited funds for teachings in practical terms for entrepreneurial education as a major obstacle to the development of the entrepreneurial skills of project management students and professionals (\bar{x} =3.61, SD=1.28). Thus, the limited funds for teachings in practical terms for entrepreneurial education with mean rank of 8.61 was ranked as the tenth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the poor teachers' skills in ICT as a major obstacle to the development of the entrepreneurial skills of project management

students and professionals ($\bar{x}=3.57$, $SD=1.16$). Thus, the poor teachers' skills in ICT with mean rank of 8.43 was ranked as the twelfth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. These findings are consistent with previous studies that also emphasize on inadequate workshops/seminars, inadequate teachers for entrepreneurship education, poor teachers' skills in ICT and limited funds for teachings in practical terms for entrepreneurial education as major challenges to the entrepreneurial development of graduates (e.g., Birdthistle, 2008; Ledyeva et al., 2008; Shinnar et al., 2009; Unachukwu, 2009; Yaghoubi, 2010; Smith and Beasley, 2011; Shinnar et al., 2012; Asiedu and Nduro, 2015; Enninful, Boakye-Amponsah and Nduro, 2016; Appiah-Kwapong et al., 2017).

Table 4.4 shows that the respondent also agreed or perceived the lack of relevant and up-to-date text books as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.61$, $SD=1.22$). Thus, lack of relevant and up-to-date text books with mean rank of 8.39 was ranked as the thirteenth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. The respondent also agreed or perceived the economic pressure of parents as a major obstacle to the development of the entrepreneurial skills of project management students and professionals ($\bar{x}=3.57$, $SD=1.06$). Thus, economic pressure of parents with mean rank of 8.29 was ranked as the fourteenth most pressing obstacle to the development of the entrepreneurial skills of project management students and professionals. These findings are consistent with previous studies that also emphasize on lack of relevant and up-to-date text books and economic pressure of parents as major

challenges to the entrepreneurial development of graduates (e.g., Martins et al., 2004; Pruett et al., 2009; Mwasalwiba, Dahles and Wakkee, 2012; Zhou et al., 2012; Kumar et al., 2013).

Table 4.5: Kendall's Coefficient of Concordance

Test Statistics	
N	160
Kendall's W ^a	.755
Chi-Square	124.500
Df	16
Asymp. Sig.	.000
a. Kendall's Coefficient of Concordance	

Source: Field Survey (2019)

From the Table 4.5, Kendall's coefficient of concordance (W^a), testing the null hypothesis that there is no agreement (respondent differ significantly) among the project management professionals with respect to how obstructing the register of challenges affect the development of the entrepreneurial skills was rejected at a 1% significance level. The degree of unanimity as measured by the W-statistics is about 76% since the score is zero for random ranking and 1 for perfectly unanimous ranking. The project management professionals therefore unanimously agreed that the most constraining factors to development of the entrepreneurial skills of project management professionals and students are more related first to funds for starting and expanding business and then to the curriculum structure for students.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The chapter provides a summary of the key findings, the drawn conclusions, policy and managerial measures for entrepreneurial development among project management graduates in Ghana.

5.2 SUMMARY OF FINDINGS

This section of the study provides a summary of the key findings on the basis of the defined research questions and research objectives as well as the described problem of the study.

The summary is provided in sub-sections below.

5.2.1 Review of Objective Number One

The study revealed that several entrepreneurial skills are needed by project management graduates in their entrepreneurial development. The entrepreneurial skills perceived essential in their entrepreneurial development include career skills, creative skills, innovative skills, managerial skills, communication skills, marketing skills and analytical skills. The entrepreneurial skills perceived as the most important were creative skills and communication skills. Communication skills in the form of working in a team, ability to use relevant language to negotiate, persuade and convince, and the ability in brainstorming interaction networking are termed as critical to the entrepreneurial development of project management graduates. Creative skills in the form of ability to visualize and identify new problem areas in the society, ability to generate new ideas or concepts, ability to apply

knowledge acquired in real life events and the ability to apply knowledge acquired with others are perceived as critical to the entrepreneurial development of project management professionals or graduates. Besides, career skills in the form of ability to plan techniques and self-directed learning knowledge, such computer literacy is also perceived as essential to the entrepreneurial development of project management graduates.

5.2.2 Review of Objective Number Two

The strategies perceived as critical to the development of the entrepreneurial skills of project management graduates include the provision of environment that encourages the spirit of physical and intellectual discovery; the application of debate and group discussion techniques; the usage of Socratic discussion technique in instructional delivery; the usage of collaborative learning technique to promote students interactions; the writing for concise, persuasive and effective inferences; solving numerical problems and puzzles; building categories about issues, information and problems; teaching for transfer of gained knowledge to other situations; allowing students to summarize and predict what would happen next in a text, play and discussion; utilizing visual aids in instructional discovery to encourage critical thought process; requiring from students justification and proofs for ideas, information and proposals; making instructional delivery student centred, and the teacher as the facilitator; critical analysis and evaluation of assumptions, issues and problems; asking open ended questions to encourage analytical, creative and innovative thinking; allowing students to identify real life problems about objects, issues and tasks; and confronting students with alternatives and thought provoking questions in that order of their preference or magnitude.

5.2.3 Review of Objective Number Three

The perceived obstacles to the entrepreneurial development of project management graduates or professionals include limited funds for youth's start-up and business expansion, theoretical based curriculum against practical skill acquisition, system of education is not producing talented workforce, no loan facilities for graduates to establish their businesses, inadequate infrastructural facilities, little or limited programme design for entrepreneurship education, inadequate equipment and technology, inadequate workshops/seminars, inadequate teachers for entrepreneurship education, limited funds for teachings in practical terms for entrepreneurial education, performance of graduates not measurable to industrial requirements, poor teachers' skills in ICT, lack of relevant and up-to-date text books and economic pressure from parents in that order of their rank or magnitude.

5.3 CONCLUSION

Entrepreneurial skills are critical to the entrepreneurial development of graduates of various higher institutions in Ghana. Project management graduates like many other graduates in Ghana are seemingly inadequately equipped for the job market. Thus, the development of the entrepreneurial skills of project management graduates in Ghana is essential in building their capacity to meet the demands of the job market. The identified entrepreneurial skills perceived as critical to the entrepreneurial development of project management graduates were career skills, creative skills, innovative skills, managerial skills, communication skills, marketing skills and analytical skills. The ability of project management graduates to work in teams, plan techniques and self-direct learning

knowledge, visualize and identify new problem areas in the society, apply knowledge acquired in real life events, and plan and stipulate strategies to organize, motivate, direct and control resources to attain stated objectives were perceived as the most highly required entrepreneurial skills for the entrepreneurial development of the project management graduates. Nonetheless, development of the entrepreneurial skills of project management graduates is hindered by several systematic, environmental and cultural challenges. Among the highest ranked challenges are limited funds for youth's start-up and business expansion, theoretical based curriculum against practical skill acquisition, the system of education, absence of loan facilities for graduates and the inadequacy of infrastructural facilities. It is therefore critical for all stakeholders to develop interest in identifying the appropriate strategies to development the entrepreneurial skills of project management graduates.

The highest ranked strategies perceived as important to stimulate the development of the entrepreneurial skills of project management graduates include the provision of environment that encourages the spirit of physical and intellectual discovery, the application of debate and group discussion techniques, the usage of Socratic discussion technique in instructional delivery, the usage of collaborative learning technique to promote students interactions and the writing for concise, persuasive and effective inferences.

5.4 RECOMMENDATION

This section of the study suggests feasible measures that can be employed to develop the entrepreneurial skills of graduates of project management in Ghana.

5.4.1 Entrepreneurship Development Fund for Graduates

The study identified limited funds for youth's start-up and business expansion as the most pressing challenge of the entrepreneurial development of project management graduates in Ghana. To reduce this obstacle, it is imperative for the Government of Ghana under the auspices of the Ministry of Education set up an entrepreneurship development fund for graduates in Ghana. A stand-by body under the auspices of the MoE should be established to manage this fund. Graduates should periodically be requested to submit business proposals for funding. Start-up capital should be given to graduates that submit standard, well-defined, economically feasible and profitable business proposals to begin their project. Monitoring bodies should be established to oversee the effective and efficient management of the business projects.

5.4.2 Restructuring of Higher Level Educational Curricula

The study identified the theoretical based curriculum of higher education in Ghana as against practical skill acquisition as a major challenge to the entrepreneurial development of project management graduates. This study therefore suggests restructuring of higher level education curricula. Entrepreneurship education should constitute a major part of every higher education course in Ghana. There is need for systematic link up between higher education and the firms or companies in Ghana. A systematic programme should be developed for all students of project management to go for attachment with firms to develop their entrepreneurial skills through their early attachment with the job market. In another instance, periodic entrepreneurship development competition can be held in various higher educational institutions to promote entrepreneurship among undergraduates.

5.4.3 Loan Facilities for Graduates

The study also reported the difficulty in accessing loan facilities for graduates to establish their businesses as a major challenge in the entrepreneurial development of project management graduates. Graduates with feasible and profitable business plans and projects can be encouraged through the provision of loan facilities. The Government of Ghana under the auspices of the Financial Ministry can grant tax rebate to banks in Ghana willing to offer soft loans or loans with lower interest rate to graduates.

5.4.4 Organizing Periodic Workshops and Seminars on Entrepreneurship Development

The study identified career skills, creative skills, innovative skills, managerial skills, communication skills, marketing skills and analytical skills as critical to the entrepreneurship development of project management graduates. The project management professional body can periodically organize workshops and seminars on entrepreneurship development for their members and fresh project management graduates.

5.5 SUGGESTED AREAS FOR FURTHER STUDIES

This study focused on the entrepreneurship development situation of project management graduates. Thus, further studies can also look at the situation of other professions like graduates of marketing, finance, procurement and economics etc. This study did not look at the existing policies in Ghana regarding entrepreneurial development of graduates and their implication to employment rate in Ghana. Thus, further studies can also look at the

existing entrepreneurial development policy for graduates in Ghana and their impact on unemployment level.

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APPENDIX

**Kwame Nkrumah University of Science and Technology
College of Art and Built Environment
Department of Construction Technology and Management
Project Managers**

Survey Instrument@2019

Brief background of the study

This study focuses on the Strategies for Improving Entrepreneurial Skills among Project Management Professionals. The study aims at identifying effective strategies for improving the entrepreneurial skills of Project Management graduates in Ghana. Not only is the study aimed at contributing to knowledge but also, it seeks to come out with strategies to help improve the entrepreneurial skills of project management professionals.

The study is purely academic-oriented; as such we would like to assure you that your responses would not be used for any other purpose other than those stated before. For the purposes of improving the quality of the study, I humbly request you to take your time to read and understand the items on this instrument before you respond to them. Objective responses offered will be highly appreciated.

Please read the instruction(s) under each section of the instrument to assist you in your responses.

Thank you so much for your willingness to participate in this study.

Questionnaire ID:

SECTION A: BIO-DATA

1. Sex of the Respondent:

Male Female

2. Age of the Respondent:

Below 25 years 26-30 years 31-35 years 36-40 years 41-45 years 46-50 years
51-55 years 56-60 years 61-65 years

3. Highest educational qualification

HND First Degree Master Degree PhD

Others (Please Specify) _____

4. Working experience

Less 1 year 1-3 4-6 7-9

10 or more years

SECTION B: ENTREPRENEURSHIP SKILLS REQUIRED BY PROJECT MANAGEMENT GRADUATE

7. Please indicate the extent to which the course of your project management education has contributed to the development of your entrepreneurial skills by choosing from Very High Extent [5] to Very Low Extent [1] [Very High Extent [5], High [4], Undecided [3], Low [2], Very Low [1]]

	Statement/Measurement Items	1	2	3	4	5
	Entrepreneurial Skills					
	Career Skills					
Ca1	Ability to assess self					
Ca2	Ability to plan techniques and self-directed learning knowledge, such computer literacy, etc					
	Creative Skills					
Cr1	Ability to visualize and identify new problem areas in the society					
Cr2	Ability to generate new ideas or concepts in that line					
Cr3	Ability to apply knowledge acquired in real life events					
Cr4	Ability to apply knowledge acquired with others					
	Innovative Skills					
In1	Ability to generate creative ideas in specific content to solve problem in society					
In2	Ability to apply creative ideas in specific content to solve problem in society					
	Managerial Skills					
Ma1	Ability to define goals and objectives					
Ma2	Ability to plan and stipulate strategies to organize, motivate, direct and control resources to attain stated objectives					
	Communication Skills					
Co1	Ability to use relevant language to negotiate, persuade and convince					
Co2	Ability to work in a team					
Co3	Ability in brainstorming interaction networking					
	Marketing Skills					
Mk1	Ability of book keeping and accounting practices					
Mk2	Ability to integrate business logistics to increase sale of goods and services					
	Analytical Skills					
An1	Ability of numeracy, generation and analysis of data for relevant decision making					

SECTION C: STRATEGIES FOR ENTREPRENEURSHIP DEVELOPMENT

8. Please indicate your level of agreement to the under-listed as possible strategy for enhancing the entrepreneurial skills of project managers in Ghana by choosing from strongly disagree (1) to strongly agree (5) [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

	Strategies	1	2	3	4	5
S1	Application of cooperative learning techniques, peer tutoring and paired problem solving					
S2	Application of debate and group discussion techniques.					
S3	Asking open ended questions to encourage analytical, creative and innovative thinking.					
S4	Use of Socratic discussion technique in instructional delivery.					
S5	Confronting students with alternatives and thought provoking questions.					
S6	Critical analysis and evaluation of assumptions, issues and problems.					
S7	Use of collaborative learning technique to promote students interactions.					
S8	Writing for concise, persuasive and effective inferences.					
S9	Solving numerical problems and puzzles.					
S10	Teaching for transfer of gained knowledge to other situations.					
S11	Building categories about issues, information and problems.					
S12	Allowing students to identify real life problems about objects, issues and tasks.					

S13	Providing environment and situations that encourage the spirit of physical and intellectual discovery.					
S14	Utilization of visual aids in instructional discovery to encourage critical thought process.					
S15	Requiring from students justification and proofs for ideas, information and proposals					
S16	Allowing students to summarize and predict what would happen next in a text, play and discussion.					
S18	Making instructional delivery student centred, and the teacher as the facilitator					

SECTION D: OBSTACLES TO THE DEVELOPMENT OF THE ENTREPRENEURIAL SKILLS OF PROJECT MANAGERS

9. Please indicate your level of agreement to the under-listed factors as challenges to development of the entrepreneurial skills of project managers in Ghana by choosing from strongly disagree (1) to strongly agree (5) [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

	Challenges	1	2	3	4	5
Ch1	There is limited openness and linkages with innovation systems in other countries					
Ch2	Ghanaian culture does not respect risk-taking					
Ch3	Limited funds for teachings in practical terms for entrepreneurial education					
Ch4	Limited funds for youth's start-up and business expansion					
Ch5	Inadequate equipment and technology					
Ch6	Economic pressure from parents					
Ch7	System of education is not producing talented workforce					
Ch8	The absence of entrepreneurial drive among students					
Ch9	There is little or limited programme design for entrepreneurship education					
Ch10	Inadequate infrastructural facilities					
Ch11	Lack of relevant and up-to-date text books					
Ch12	Inadequate workshops/seminars					
Ch13	Poor teachers' skills in ICT					
Ch14	No loan facilities for graduates to establish their businesses					
Ch15	Inadequate teachers for entrepreneurship education					
Ch16	Performance of graduates not measurable to industrial requirements					
Ch17	Theoretical based curriculum against practical skill acquisition					