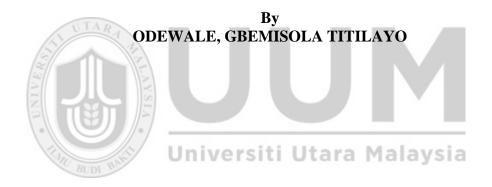
# THE INFLUENCE OF ENTREPRENEURSHIP EDUCATION AND STUDENTS' VIEWS ON SELF-EMPLOYMENT AMONG POSTGRADUATE STUDENTS IN UNIVERSITI UTARA MALAYSIA



Master of Science (Management)
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# THE INFLUENCE OF ENTREPRENEURSHIP EDUCATION AND STUDENTS' VIEWS ON SELF-EMPLOYMENT AMONG POSTGRADUATE STUDENTS IN UNIVERSITI UTARA MALAYSIA



Research Project Submitted to School of Business Management, College of Business, Universiti Utara Malaysia, in Fulfilment of the Requirement for Master of Science (Management)

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#### **ABSTRACT**

This research paper contains the findings of an examination of the relationship between entrepreneurship education and views on self-employment. Using a sample of 160 postgraduate students of Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia, this research paper seeks to determine whether the knowledge acquired in entrepreneurship courses has influence on the views expressed by postgraduate students on self-employment. Correlation and linear regression are used for analysis. The findings, based on correlation analysis suggest that there is significant correlation between the predictor variables (communication skills, innovation and technical knowledge) and views on self-employment at significant levels. Consistent with expectation, the linear regression analysis result shows a significant positive relationship between innovation and views on self-employment. Technical knowledge is also positively significantly related to views on selfemployment. In contrast to prediction, the study indicates an insignificant relationship between communication skills and views on self-employment. The findings have implication for theory and practice. The place of spillover theory of entrepreneurship is supported in the study. Educators and managers should prioritize technical knowledge and innovation for nascent entrepreneurs to enhance their performance. Time is a limiting factor for this study, and scope may limit the generalization of the findings.

**Keywords**: self-employment, communication skills, innovation, technical knowledge, entrepreneurship education.

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#### **ABSTRAK**

Kajian ini dijalankan untuk mengkaji hubungan di antara pendidikan keusahawanan dan pandangan mengenai bekerja sendiri. Kajian ini dijalankan dengan menggunakan sampel kajian yang terdiri daripada 160 orang pelajar sarjana di Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia. Kertas kajian ini adalah untuk melihat pandangan pelajar mengenai bagaimana ilmu yang dipelajari melalui subjek keusahawanan mampu mempengaruhi pandangan pelajar untuk bekerja sendiri. Kaedah korelasi dan regresi linear digunakan untuk menganalisis data. Melalui kaedah korelasi, analisis menunjukkan bahawa terdapat hubungan yang signifikan pada tahap ketara antara antara pemboleh ubah tidak bersandar (kemahiran komunikasi, inovasi dan pengetahuan teknikal) dan pandangan mengenai bekerja sendiri. Selaras dengan jangkaan, keputusan analisis regresi menunjukkan terdapat hubungan positif yang signifikan antara inovasi dan pandangan mengenai bekerja sendiri. Pengetahuan teknikal juga menunjukkan hubungan positif yang signifikan terhadap pandangan mengenai bekerja sendiri. Namun, kajian menunjukkan keputusan yang bercanggah dari jangkaan apabila keputusan menunjukkan hubungan yang tidak signifikan antara kemahiran komunikasi dan pandangan mengenai bekerja sendiri. Hasil kajian yang dijalankan memberi implikasi dari aspek teori dan amali. Hasil kajian ini berjaya menyokong teori keusahawanan yang telah disahkan. Pendidik dan pengurus harus menitikberatkan pengetahuan teknikal dan inovasi untuk peningkatan prestasi usahawan baru. Masa adalah halangan utama yang menghadkan perjalanan kajian ini, dan skop kajian juga boleh menghadkan dapatan kajian secara menyeluruh.

**Kata Kunci**: Bekerja sendiri, kemahiran komunikasi, inovasi, pengetahuan teknikal, pendidikan keusahawanan

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# LIST OF ABBREVIATIONS

# ABBREVIATION FULL LIST

CS	Communication Skills

INN Innovation

TEK Technical Knowledge
UUM Universiti Utara Malaysia
OYA Othman Yeop Abdullah
EC European Commission



#### **CHAPTER ONE**

#### **INTRODUCTION**

## 1.1 Background of the Study

Self-employment is currently on the increase globally, right perception on this new trend will invariably lead to poverty reduction and reduced joblessness among university graduates (Goetz, Fleming, & Rupasingha, 2012). This is in contrast to earlier perception that self-employment is low paying meant for retrenched workers or retirees and that the self-employed are largely poor (Fields, 2014; Goetz *et al.*, 2012). The decision to become self-employed hinges on wide array of factors which include graduates unemployment, inability to get well paid job, job satisfaction, personality traits, independence etc. Therefore, becoming a nascent entrepreneur is viewed as the panacea (Fields, 2014; Lange, 2012; Stel, 2005).

Preference for self-employment could be because of the benefit inherent in it, most especially when the benefit is high (Meager, Martin, & Carta, 2011). The pursuit of self-employment as postulated by earlier researchers is an issue of individual differences and this depends to an extent on individual's perspective (Singh, Saghafi, Ehrlich, & De Noble, 2010). The knowledge spillover theory supports the opinion that knowledge has the capacity to influence views on self-employment (Audretsch, Keilbach, & Lehmann, 2005).

On the contrary, Meager *et al.* (2011) report that education has not always been the determinant to be self-employed, similarly Parker (2004) share the opinion that education can have both positive and negative effect on students views of self-employment. The reason being that educated individual can have access to information which can lead to opportunity to explore a new venture. On the other hand, educated person can opt for a well-paid job rather than taking risk to the unknown. Notwithstanding, European Commission 2012 submit that

"Entrepreneurship education seeks to prepare people to be responsible, enterprising individuals who have the knowledge, skills and attitude necessary to achieve the goals they set for themselves to live the fulfilled life" (European Commission, 2012, p. 44).

Singh and DeNoble (2003) in their research paper identified three distinctive dimensions which can influence views on self-employment these are; intention to become self-employed, perceived ability and personal investment. Idogho and Ainabor (2011) in their paper agreed that practical skills and experience are vital before potential entrepreneur can be self-reliant. This has affected so some entrepreneurs who adventurously went into business without experience, skills as well as technical know-how.

Experience can add impetus to potential entrepreneurs' desire in venture creation. This experience can be acquired through training at different times; this includes internship, apprenticeship, mentoring etc. which a potential entrepreneur can build on (Keat, Selvarajah, & Meyer, 2011). All these can be imbibed in the curriculum as enabler for venture creation.

Unfortunately, this experience is missing in most universities in developing countries and as such the will power to start a new business is lean (Nwekeaku, 2013). Singh and DeNoble (2003) noted that skills in social interaction are required for entrepreneur to thrive and that self-employment is the way out of unemployment (Singh *et al.*, 2010). In actual fact, inclination to become self-employed depends on views on self-employment. The issue now is whether these graduates are willing to become self-employed?

Entrepreneurship has experienced tremendous growth especially in developed nations (Matlay, 2006) and is a growing field with increasing awareness on the role it can play and how much it had contributed to the wealth of developed nations and to the society at large (Turker & Selcuk, 2009). Its study has become relevant and been accorded much recognition among students who now attend management or business schools so as to have the technical know-how as entrepreneurs or be favourably positioned in the labour market (Finkle, Soper, Fox, Reece, & Messing, 2009).

However, Elmuti, Khoury and Omran (2012) submit that most universities rarely offer what it entails to become entrepreneurs. They found that only one out of nine randomly selected institutions of higher learning in the United States, England, France and Germany covers every point that are assumed as essentials in entrepreneurship education. They postulate that required skills such as technical skills, management as well as personal entrepreneurial skills can be learned through effective entrepreneurial education.

Proper perception of self-employment through educators, stakeholders and potential entrepreneurs can motivate or develop innovative and creative spirit that is needed for growth and development in the society (Ferrari, Cachia, & Punie, 2009; Singh *et al.*, 2010). According to Idogho and Ainabor (2011), all stakeholders, government, non-governmental organizations as well as corporate bodies must be involved in promoting entrepreneurship education in order to stem the tide against unemployment and poverty.

Howbeit, there is no consensus as to whether entrepreneurs are born or made, as this has remained a subject of empirical debate. While some scholars argue that entrepreneurs are made (Jones & English, 2004; Raju, Kumar, & Ramgopal, 2015). Hopkins (2004) disagree that entrepreneurs are born but certain skills can be taught. Some others are not definite or precise on whether they are born or made (Mwasalwiba, 2010; O'Connor, 2013; Von Graevenitz, Harhoff, & Weber, 2010; Von Graevenitz & Weber, 2011). For example, Raju *et al.* (2015) argue that, developed nations like US has produced eminent entrepreneurs because of early exposure to entrepreneurship education. They uphold that entrepreneurship education serves as an eye opener which has the capability to broaden and invigorate vision by motivating students' intention towards entrepreneurial mind set. The earlier postulate that some people are born entrepreneurs does not hold any longer as there is a growing acceptance that entrepreneurship can be taught (Jones & English, 2004; Raju *et al.*, 2015). In contrast, Hopkins (2004) postulates that only certain skills can be taught the inborn traits cannot be learned.

Another issue is the existence of different schools of thought on whether entrepreneurship education can impact positively on existing or potential entrepreneurs (Dickson, Solomon, & Weaver, 2008; European Commission, 2012b; Matlay, 2006; Pittaway & Edwards, 2012). People become self-employed for varied reasons which may be determined based on individual differences (Singh *et al.*, 2010). Oosterbeek, Praag and Ijsselstein (2010) examine entrepreneurship education program on college students based on entrepreneurship skills and motivation. The outcome shows that entrepreneurship education does not have the desired impact on entrepreneurial intention.

Similarly, O'Connor (2013) report that it is difficult to prove the extent of the economic benefit of entrepreneurship education. Pittaway and Edwards (2012) also asserted that, it is still difficult to give substantial prove of successful economic outcomes achieved through entrepreneurship education. This could be inferred from the inconsistency in government objective to give direction and purpose to entrepreneurship. However, in contrast to the above submissions (Elmuti *et al.*, 2012) entrepreneurship is like other profession that can be learned and practiced.

At this juncture, it is difficult to state categorically or infer that the problem of lack of effectiveness of entrepreneurship education is due to certain factors. However, if other fields of knowledge can make meaningful impact through education, then entrepreneurship education can, but then, there may be underlying factors which might be inhibiting the expected effectiveness as well as efficiency. Entrepreneurs need deliberate effort to explore and identify waiting opportunities and privileges. Audretsch *et al.*(2005) is of the view that entrepreneurship education is important,

because knowledge gained from the university can be explore in generating ideas resulting in innovation and growth.

#### 1.2 Problem Statement

Unemployment has been a turbulent issue for quite sometimes both in developed and developing countries of the world (Pauw, Oosthuizen, & Westhuizen, 2008). Although unemployment rate differs from one country to another, the pursuit to arrest the surge remains a concern for all country stakeholders. Unemployment has become a threat to social, economic and political development and efforts to curtail the rising tide of unemployment has become a global issue (Ajufo, 2013).

Pursuit of the remedy to issues of unemployment necessitated the need for self-employment, particularly among university graduates (Meager *et al.*, 2011; Stel, 2005; Zhou & Xu, 2012). Audretsch, Keilbach, and Lehmann (2005) suggest that entrepreneurship education and the transfer of technology or knowledge from universities should be considered as germane to societal development. The reason being that, knowledge for economic growth through self-employment can be facilitated through the university system.

The problem of graduate unemployment is a global phenomenon that is facing several countries whether developed or emerging (Rae, 2010). Past studies provide evidence on how various stakeholders that include researchers, governments, universities, public, and the press are showing concern on how to reduce unemployment through

entrepreneurial firm (Elmuti *et al.*, 2012). This is because the unemployed could be a source of menace to the society.

According to Singh *et al.* (2010), self-employment has been suggested as a part of the panacea to the challenges confronting emerging economies. Pauw *et al.* (2008) submit that prolonged period of unemployment could worsen a person's mental health, and that the unemployed are prone to mental health challenges such as distress and depression compared to their employed counterparts. It was the desire to reduce unemployment among university graduates that made some countries to introduce entrepreneurship education into the university curricula (Raju *et al.*, 2015).

Therefore, entrepreneurship education has evolved as an emerging field of study with an objective of developing graduate entrepreneurs. The extent of how this is being attained remains mixed in the literature (European Commission, 2012b; Mwasalwiba, 2010; Oosterbeek *et al.*, 2010; Peterman & Kennedy, 2003). European Commission (2012b), and Jones and English (2004) provide evidence of the positive influence of entrepreneurial education on business start-ups by graduates that attended entrepreneurship courses. Consistent with the need for entrepreneurship education, literature shows that effective and efficient entrepreneurship curriculum (Matlay, 2006) is meant to broaden students' horizon on the need to be self-reliant. At the same time explore entrepreneurial skills, have financial freedom, and seek more opportunity from their environs through training and insight which they have received (Galindo & Méndez, 2014).

Elmuti *et al.* (2012) explained that certain skills are essential for successful entrepreneurs' optimum performance; these include technical skills, business management skills and personal entrepreneurial skills, which according to the authors can be learned through entrepreneurship education. Further, Baron and Tang (2011) argued that innovation is fundamental to new venture development. Previous studies show that technical knowledge acquired in entrepreneurship course is related to job creation or self-employment (Zhou & Xu, 2012).

There are evidences from the literature of the relationship that exist between innovation and entrepreneurship education (Dobni, 2014; Ferrari *et al.*, 2009; Galindo & Méndez, 2014; Jiang & Sun, 2015; Zhou & Xu, 2012). Baron and Markman (2000) suggest that social skills play significant roles in developing entrepreneur. Elmuti *et al.*(2012) itemised some of these skills as fundamental for potential entrepreneur, these skills includes; basic entrepreneurial training skills, managerial skills, social competence and interpersonal skills. These skills are required for entrepreneurial development though not limited to the aforementioned.

Meager, Martin, and Carta (2011) noted that needed skills depend on individual's motivation. Base on this premise, there is less motivation towards communication skills in relation to views on self-employment therefore, it has not received much attention in entrepreneurial domain. This study therefore examines the influence of entrepreneurship education on communication skills in addition to technical knowledge and innovation in relation to views on self-employment among postgraduate students.

## 1.3 Research Questions

The study seeks to find empirical answers to the following research questions.

- 1. Is there any relationship between communication skills and students' views on self-employment?
- 2. Is there any relationship between innovation and students' views on selfemployment?
- 3. Is there any relationship between technical knowledge and students' views on self-employment?

# 1.4 Research Objectives

The main goal of this study is to investigate postgraduate students' views on selfemployment with respect to entrepreneurship education. The specific objectives through which the research problem will be addressed are as follows;

- To examine the relationship between communication skills and students' views on self-employment.
- 2. To examine the relationship between innovation and students' views on selfemployment.
- To examine the relationship between technical knowledge and students' views on self-employment.

## 1.5 Significance of the study

This study is significant and relevant at this moment considering the increase in the number of university graduates that are being turned into the labour market on a yearly basis. The study of entrepreneurship education that deals with issues of self-employment presents area of interest to all stakeholders whether governmental or nongovernmental organizations.

The study contributes to the existing literature on entrepreneurship education and most especially one of the variables communication skills (CS), which is hardly being recognized as part of the skills a potential entrepreneur should possess. Meager *et al.*(2011) postulates that skills needed for self-employment (entrepreneurs) depend on their business aspirations. Communication skill is most likely being concealed as less important in entrepreneurial domain, yet very germane (Meager *et al.*, 2011).

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This study is equally significant because much has been said and committed to entrepreneurship education in higher institutions of learning and by stakeholders especially in the developed countries. This should be justified by assessing its impact and influence at the university level, notwithstanding the divergent views so far (Connor, 2013; Graevenitz & Weber, 2011; Mwasalwiba, 2010).

The economic challenges being encountered globally had awakened the need for increase in entrepreneurial activity through venture creation or self-employment which this study uniquely project. The study is significant as self-employment is perceived by some scholars as the likely solution to reducing unemployment as well

as path to economic survival and development (Meager *et al.*, 2011; Rae & Woodier-Harris, 2013; Singh *et al.*, 2010; Zhou & Xu, 2012).

## 1.6 Operational Definitions

Operational definition refers to observations to measure the construct in this study there four major constructs which includes; communication skills, innovation, technical knowledge and views on self-employment which is the dependent variable.

## 1.6.1 Views on Self-Employment

Views on self-employment refer to the assessment of individual's willingness to become self-employed as a result of knowledge acquired through entrepreneurship education. This depends to a large extent on perception and readiness. Some graduates view self-employment as risky and as such will prefer to be employees rather employers. Those that project themselves as deficient in entrepreneurial skills due to their cultural environment or specific cultural origin and religious settings may likely be against self-employment (Aldrich & Zimmer, 1986; Etzkowitz, 2003).

#### 1.6.2 Communication Skills

Communication is the ability to interact effectively with the aim of getting things. This skill must be learned or else there will be barriers to accomplishing things as desired. The role of communication cannot be undermined in every human endeavor. Cunningham and Lischeron (1991) itemised views of six schools of thought on what

an entrepreneur does and its key functions. According to the authors each of the schools of thought has distinct characteristics such as intuition, risk-taking, knowledge, planning, innovation, motivation, alertness to opportunities, fluency of speech (communication) etc. An innovative idea or concept which cannot be expressed remains dormant and worthless.

#### 1.6.3 Innovation

Innovation is the ability to generate new ideas for the purpose of venture creation. Innovation is the hub in today's business world, any individual or company that fails to change through innovation will soon fizzle out (Storen, 2014). Right perception of self-employment by educators, stakeholders and potential entrepreneurs can motivate or develop innovative that is needed for growth and development in the society (Ferrari *et al.*, 2009). Creativity is the bedrock of innovation while innovation is fundamental to new venture development or becoming self-employed (Baron & Tang, 2011). Innovation set the pace in every new venture, therefore it must be enhanced.

#### 1.6.4 Technical Knowledge

Technical knowledge is the prior knowledge acquired from entrepreneurship education. Potential entrepreneur must possess or be acquainted with this knowledge before undertaking business enterprise (Nwekeaku, 2013). This has affected so many entrepreneurs who adventured into business without the technical know-how. More recent evidence suggests that people who start businesses have a higher level of education than people who do not (Bates, 1995; Bowen & Hisrich, 1986). Tacit and

explicit knowledge are pertinent in any business venture, enhanced understanding of prior education and experience are powerful combination to meet the challenges of this ever-changing corporate world (Direction, 2008). Entrepreneurship program require setting of achievable goals for knowledge and skills to be acquired in other to strike a balance between theoretical and practical perspective (Meager *et al.*, 2011).

## 1.7 Scope and Limitation of the Study

The scope of this study is limited to postgraduate students in Othman Yeop Abdullah (OYA) Graduate School of Business, Universiti Utara Malaysia (UUM). The period of the research work was too short. Postgraduate students from other schools were excluded because of time constraint.

# 1.8 Organization of the Study

The content overview of the research paper is presented in five chapters as follows;

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Chapter I This chapter begins with introduction which incorporates seven subtopics which are background of the study, problem statement, research questions, research objectives, significance of the study, operational definition, scope and limitations of the study and then organization of the study.

Chapter II This chapter consists of introduction, entrepreneurship education, communication skills, innovation, technical knowledge, views on self-employment, theory, the spillover theory of entrepreneurship and theory of reasoned behavior.

Chapter III Chapter three examines methodology and techniques with the framework. It also includes; research hypothesis, research design, sampling frame, measurement of variables data collection its procedures and techniques used for the analysis.

Chapter IV Chapter four presents discussion and interpretation of findings. The descriptive analysis and test of hypotheses with the use of IBM Statistical Programme for Social Sciences (IBM SPSS Version 16) software was outlined in this chapter.

Chapter V Chapter five ends with discussion, summary and conclusion

## 1.9 Chapter summary

This chapter discussed views on self-employment as an issue to be considered, now that graduates' unemployment has become a global issue especially in the developing countries. Right perception from the elementary level to higher institutions of learning on views of self-employment must be demonstrated by all stakeholders. Problem statement, research questions, research objectives, significance of the study, scope and limitations were examined.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter discusses literature review which is divided into sections. The first section 2.1 is the introduction, followed by 2.2 which discuss views on self-employment. Section 2.3 presents entrepreneurship education with the variables communication skills, innovation, and technical knowledge. Section 2.4 discusses theories which comprises of the knowledge spillover theory of entrepreneurship and the theory of reasoned action. Section 2.5 discusses the chapter summary.

## 2.2 Views on Self-Employment

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Entrepreneurship is widely recognized as a driving force in economic development, as such governments initiate entrepreneurial programmes to raise and support nascent entrepreneurs (Wu & Wu, 2015). For instance, Obama Startup America initiative (US), UK's loan scheme for young entrepreneurs (UK), India National Rural Employment Guarantee Act(India), Mexico Becate program (Mexico) etc, these shows part of the effort being made in different countries to influence positive perception of self-employment (Fields, 2014; Wu & Wu, 2015).

Moreover, the Asian tigers (Hong Kong, Singapore, Taiwan, and South Korea), the Asian cubs (Indonesia, Malaysia, Philippines and Thailand), China and Vietnam have

gone beyond domestic market to focusing on economic growth by exporting to different parts of the world (Fields, 2014). Issue of self-employment cannot be overemphasized, following Fields (2014) individual can become self-employed by choice or because there is no other alternative or choice.

Views on self-employment can be based on three dimensions as analysed by Singh and DeNoble (2003), first is intention to become self-employed, Dabale and Masese (2014) explained that factors that influence an individual intention is important. This also depends on level of tolerance for risk and independence which will likely determine to a great extent what he or she will achieve (Douglas & Shepherd, 2002). The second dimension is perceived ability, which he explained as recognizing opportunity and acting on it. The third dimension is personal investment, which is classified as one of the biggest investment with huge resources being committed to it by individuals as well as stakeholders (Wu *et al.*, 2008).

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Elmuti *et al.* (2012) present three major entrepreneurship education indicators which they employ in their survey of 170 subject two groups comprising of entrepreneurs and potential entrepreneurs in United States. They report that, entrepreneurship education has the capability to impact needed knowledge and skills on graduates' entrepreneurs to become self-employed with sustainable ventures. They itemised those indicators as managerial skills, social competence and basic entrepreneurial training out of which technical knowledge and interpersonal skills were statistically significant. Each of the group agreed that, entrepreneurship education have significant impact on venture and that entrepreneurship education can be taught.

The problem of graduate unemployment is a global phenomenon that is facing several countries whether developed or emerging (Rae, 2010). Unemployment has contributed to the rising rate of crime in some developing countries (Adebayo, 2013). Pauw *et al.* (2008) affirmed that prolonged period of unemployment could worsen a person's mental health which shows that the unemployed are prone to mental health challenges such as distress and depression compared to their employed counterparts. At the inception of every political era (Nwekeaku, 2013) one of the foremost agenda to read is empowerment programme for the youths.

In 1986 under the leadership of General Ibrahim Babangida it was National Directorate of Employment (NDE), Better Life for Rural Women, Family Support Programme. During Yar'adua administration all institutions of higher learning were directed to commence entrepreneurship studies for all students irrespective of their course as a bid to reduce unemployment (Nwekeaku, 2013), unfortunately none has been able to deliver as promised.

Adeniyi *et al.* (2014) itemised some causes of unemployment as follows; faulty education system, hostile economic environment, under developed small and medium industries, unstable government policies, neglect of agriculture and lack of access to finance. In the absence of the aforementioned, self-employment will thrive and there will be more venture creation.

Some world leaders may be tacit or fickle on enlivening entrepreneurial ideas in all the stages of learning because of the view that unemployment is a global phenomenon but few others are fervidly strategizing on how to be well-positioned in the world economy and be able to turn out fecund youths (Blinder, 1988; Dyer *et al.*, 2011). China for instance has devoted substantial resources to innovation which can be attested to worldwide and soonest China may become the most innovative country in the world.

Wu *et al.*(2008) submit that only a fractional part of Chinese university graduates start-up businesses after graduation. Government sees the exigency and therefore offer strong support to entrepreneurial activity which possesses a driving force in any economy and also a panacea to unemployment. As such China is now becoming reputable for innovativeness. Desire to become self-employed can stem from different opinions. Verheul, Thurik, Grilo *et al.* (2012) note from their findings that, gender influences preference and actual involvement in self-employment. While perceived ability, risk attitude, self-employed parents etc, are drivers of self-employment. They conclude that women lack willingness and have low preference for self-employment.

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Meager *et al.* (2011) report that there is steady rise in self-employment in the UK, they agree that individuals become self-employed based on different reasons which include; lifestyle (family consideration), cultural background, independence, job satisfaction, inability to secure a well-paid job etc. Meager *et al.* (2011) note that push or pull factors may be responsible for chosen to become self-employed. The "push factor" is the necessity entrepreneurs that may arise as a result of inability to get paid employment. Such individuals do not cherish self-employment, but the increasing unemployment rate and the desire to be financially independent has led them to start new businesses (Reynolds *et al.*, 2000).

Although opportunity driven entrepreneur may pursue venture creation by choice, Storen (2014) postulates that two third of entrepreneurship graduates would opt for something different if opportunity arises. Enterprise culture is an important issue while considering self- employment, while some project themselves as those deficient in entrepreneurial skills due to their cultural environment whose identity is indisposed to self-employment or entrepreneurship.

Some others are identified as those from specific cultural origin and religious settings noted for propensity to entrepreneurship (Aldrich & Zimmer, 1986; Etzkowitz, 2003). Kuratko (2009) documents that increase in entrepreneurial activity in U.S can be attributed to so many reasons including symbolic entrepreneurial culture. Culture is linked with creativity, in the sense that some cultural domain allows creativity to thrive and highly encourage while some others nib it (Ferrari *et al.*, 2009). According to Singh and DeNoble (2003) self-employment has been suggested as a part of the panacea to the challenges facing the emerging economies

Meager *et al.* (2011) submit that a sizable proportion of the workforce in the UK has avid desire to start their own business but there seems to be cultural barriers inhibiting their aspirations. Conversely, Storen (2014) from her findings concludes that job insecurity in other countries may account for interest in self-employment, whereas Norwegians graduates tend to prefer paid employment than self-employment because of favorable labor market. The author infer that wider scope of entrepreneurship education will propel positive influence on innovative and entrepreneurial skills (Storen, 2014).

Shamsul and Tih (2013) note that access to timely and accurate information through networking will empower graduate entrepreneurs to make significant entrepreneurial success. Adeniyi *et al.* (2014) observed that finance has been a major impediment to venture creation by some graduates, although to manage finance profitably requires certain impetus which could be acquired through entrepreneurship education. Countless start-up had run into bankruptcy for lack of financial management. He conclude that , it is not actually sufficient to have access to micro finance but how well to effectively and efficiently utilize such funds should be adequately considered.

## 2.3 Entrepreneurship Education

Change agents have been entrepreneurs through which the entire world has not only been liberated from ignorance, the rate of development had been unimaginable. Dickson, Solomon, and Weaver (2008) find that positive relationship exists between education and entrepreneurial performance, according to the authors, this agrees with the general consensus on existing research. Gindling and Newhouse (2014) present that education is strongly correlated with success but educated entrepreneurs can experience greater success and achievement based on other factors such as access to finance, inherited wealth, access to information etc.

This research paper itemizes some variables that affect the desire to go into selfemployment which include; technical knowledge, communication skills and innovation as independent variables, while views on self-employment is the dependent variable. These variables were pointed out as important based on earlier researchers' opinion and theory which prove their importance to entrepreneurs. The framework is derived from Elmuti *et al.* (2012) where three major entrepreneurship education indicators are presented as follows; (1) entrepreneurship education and managerial skills, (2) social competence and interpersonal skills, and (3) basic entrepreneurial training skills. Each of these three major indicators contained more than four variables which were used as independent variables to examine organizational effectiveness as the dependent variable. The researcher chose three from each major indicator which are technical knowledge, effective communication skills and innovation (independent variables) to examine views on self-employment (dependent variable) as revealed in table 2.3.

#### 2.3.1 Communication Skills

Improved knowledge of communication skills can imply effectiveness and efficiency in interacting in the business world. Yet communication skills is perceived and portrayed as a lesser skill that is insignificant in entrepreneurial activities compare to other skills (Mwasalwiba, 2010). Mwasalwiba (2010) confirm this in his article, where a total of 108 articles were reviewed, out of which 21 were reviewed to identify the most common subjects or course contents in a specific entrepreneurship programme. Out of 18 subjects identified communication skill was second lowest in the rank and in the order of importance.

Inyang and Enuoh (2009) identified certain entrepreneurial competencies (communication, knowledge, skills etc.) which are lacking and this had rendered some graduates unemployable in the labor market. Similarly, Meager *et al.*(2011) notes that certain skills (generic skills, soft skills, social skills) and knowledge are

relevant to self-employment, these skills require constant update (Popoola, 2014) this includes communication skill.

Table 2.3 Entrepreneurship Education Indicators

Entrepreneurship Education and Managerial Skills:

Training in Finance, marketing and human relations

Experience

**Background Education** 

Simple organization structure

Technical knowledge

Social Competence and Interpersonal Skills:

Good customers relations

Good employees relations

**Effective communication skills** 

Social adaptability

Reputation for honesty

Basic Entrepreneurial Training Skills:

## Innovation

Viability

Exploitable market opportunities

VRIO (Value rareness, limitability, organization

**Business Planning** 

**Growth Strategies** 

International business strategies.

Strategic partnerships

**Resources Obtainment** 

"Bootstrapping" Family-Loans.

Investors/Venture Capital

Exit Strategic – Done at beginning

Venture capital

Selling / Retirement

Initial Public Offering (IPO)

Family issues

Source: Elmuti et al. (2012)

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Pauw *et al.*(2008) submit that absence of social skills or soft skills such as communication skills, management skills can affect efficiency, to forestall this, those skills should be learnt. Entrepreneurs require skills, knowledge and attitudes rooted in effective training for maximum efficiency and also to unravel current challenges (Henry, Hill, & Leitch, 2005). Meager *et al.* (2011) report that required skills vary and it depends on entrepreneurs aspirations, based on this communication skill rank (Mwasalwiba, 2010) so low in entrepreneurial scope however, it is one of the needed skills.

According to Salami (2013) the way out is to adequately equip entrepreneurial education with all the needed skills irrespective of its order of importance. Entrepreneurship education should emphasize interpersonal communication to enhance better interaction within the business world and the entrepreneurs immediate environment (Hamidi, Wennberg, & Berglund, 2008). Zhou and Xu (2012) equally submit that interpersonal communication skills should be included in entrepreneurship curriculum as part of enablers in entrepreneurial domain. Ahmad (2013) shared the same view that entrepreneurial skills should be inculcated early so as to produce successful entrepreneurs as the number of unemployed graduates in Malaysia is soaring gradually. He concludes that entrepreneurship education should be included in the curricular from primary to tertiary institutions to prepare and equip youths with entrepreneurial spirit.

#### 2.3.2 Innovation

Innovation is the successful use of skills and resources to create new technologies or new goods and services. Innovation is core in meeting the challenges of this dynamic and information driven age which can be elicited by innovative entrepreneurs (Jiang & Sun, 2015). Innovation (Hamidi *et al.*, 2008) can be termed as the forerunner of entrepreneurial process, which is so germane and inevitable for entrepreneur's success. Innovative mind and entrepreneurial ability required for self-employment to thrive can be annexed through entrepreneurship education (Jiang & Sun, 2015). Dobni (2014) notes that, leading innovation economies of the world are anchored by a strong focus on education at all levels.

There must be a transfer from pure knowledge to innovation and entrepreneurship education within the universities environment by creating models for a better understanding of entrepreneurship practice as core to self-employment (Jiang & Sun, 2015). This is to ensure innovation and entrepreneurship education on which entrepreneur can anchor its foundation and continuous growth (innovation) is established in order to build solid, stable and well-founded business venture which can guarantee self-employment.

Ability to generate creative ideas by entrepreneur will act as catalyst to the possibility of establishment of firm that will give birth to innovative business venture with solid financial footing. While failure, abrupt disappearance and eventual ruin became the bitter experience of some entrepreneurs that were unapt to stand the test of time can be hinged on several reasons; lack of innovation could be pivotal.

Dobni (2014) submits that educational system that has innovative culture should be supported because sustainable growth and development will remain elusive without support for educational system. Omerzel and Antoncic (2008, p. 2) noted that "organizations are becoming more knowledge intensive and they are hiring "minds" more than "hands". The role and relevance of innovation is necessitated by the paradigm shift in the acquisition of knowledge and advancement in technology.

Following Brinkley (2010) if UK vision 2020 knowledge economy will be realistic, innovation must be encouraged and enhanced financially. Innovation is the hub in today's business world (Dobni, 2014), any company that fails to change through innovation will soon fizzle out. Innovation is an indispensable tool (Huarng & Ribeiro-Soriano, 2014) which an entrepreneur wields to soar in the storm of inevitable changes and shortened life cycle of product and service that is prevalent in the business world today.

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Huarng and Ribeiro-Soriano (2014) observe that innovation is employed by governmental agency around the world to improve public services as the only avenue through which citizens can be slaked. Raju *et al.* (2015) report that, 76% of their respondents would like to start new venture or be self-employed only with innovative ideas as back-up. Innovation is an essential element required to meet the current trend in technological changes which demands knowledge based research so as to develop appropriate innovative attitudes that can enhance individual wellbeing and organizational growth (Ferrari *et al.*, 2009).

Advancement in media and high tech provides opportunity for all to explore creative innovation, add value, discover new methods and develop new approaches or ideas. Since innovation can be fostered or inhibited, right perception through educators can motivate or develop innovative spirit that is needed for self-employment which will lead to growth and development in the society (Brinkley, 2010). Halkos and Bousinakis (2012) from their study of 355 employees from both private and public sectors report that, accomplishment ease off tension reduces stress and increases productivity. This implies that positive change is embedded in innovation. Therefore it should not be monopolized in a single field; appropriating it in different discipline will broaden its scope.

The pathway to experience growth is by creating new value through innovation and entrepreneurship that is germane to economic development. Entrepreneur has the ability to exert certain degree of control over factors that can influence conversion of creative ideas into new innovations (Sarooghi, Libaers, & Burkemper, 2015). On the other hand Balan and Metcalfe (2012) argue that, students engagement is very crucial and should be exemplified by identifying teaching skills that could occupy entrepreneurship students. This invariably is expected to influence their view on self-employment through cognitive skill for better performance and achievement as they learn by practice.

Galindo and Méndez (2014) conclude that innovation and entrepreneurship are positively related with economic growth. This agrees with some earlier scholars that entrepreneurship leads to economic growth and this can only be achieved by self-employment activities. Ferrari *et al.* (2009) support that, for creative learning and

innovative teaching to be effective, both teachers and learners must be well equipped in the use of technologies so as to benefit maximally. State-of-the-art equipment without enlivening environment to combine both external and internal factors effectively and efficiently will impede learning and act as clog on the wheel of innovation.

Dyer *et al.* (2011) acknowledge five discovery skills which are associating, questioning, observing, networking and experimenting as well as practical tips with five steps which are essential for developing innovative ideas. The steps can be summarised thus; prioritize your time, navigate your skills, identify a specific idea and innovate with it, practice and demonstrate umpteen times and get a mentor. Although success does not originate from them but the combination will make a remarkable influence on views of self-employment. According to Dyer *et al.* (2011) they affirm that countries and communities are working assiduously in different fields to spark creative ideas.

China for instance has devoted substantial resources to innovation which can be attested to worldwide and soonest China may become the most innovative country. Wu *et al.* (2008) submit that only a fractional part of Chinese university graduates become self-employed after graduation, perhaps because of their views on self-employment that is risky. But because of the exigency Chinese government strongly support entrepreneurial activity which by implication may be to influence their views on self-employment and also as panacea to unemployment.

Dyer *et al.* (2011) concede from their eight year collaborative study that creativity is not based on genetic predisposition only, but individuals can learn to think differently and also act differently. They state that some innovators are deficient at delivery skills and as such they team up with others who possess them. eBay founder Omidyar recognized this he invited Jeff Skoll a Stanford MBA and Meg Whitman they both professionalized the eBay web site, drove international expansion, developed new categories such as autos and integrated important capabilities such as Paypal (Dyer *et al.*, 2011).

Ability to innovate does not rest squarely on genetics the key skill to generate innovative ideas is the cognitive skill of associational thinking. Steve Jobs innovative ideas can be traced to calligraphy classes after he dropped out of college. Marc Benioff the founder of salesforce.com was opportune to be around for summer work when the first Mac was built and launched. He seized the opportunity by practising the right use of the discovery skills and perhaps following the five steps led to innovative ideas and he was apt to build software as an undergraduate at a tender age of 15. The privilege of learning first hand from someone like Steve Job sparked innovative insights in Benioff, it was this practical training that enliven his thinking cap (Dyer *et al.*, 2011).

Dyer *et al.* (2011) in their research on over 500 innovators and 5000 executives both famous and less famous innovative entrepreneurs and executives were interviewed. The report shows innovative ideas are not limited to some few people born with personality traits, innovators can be made through change in behaviour which can impact on innovative thinking. They believe that the combination of the discovery

skills which are associating, questioning, observing, networking and experimenting will act as catalyst in the wheels of innovation. Dyer *et al.* (2011) conclude that innovative skills are not simply innate traits they can be learned and developed.

#### 2.3.3 Technical Knowledge

Advancement in acquisition of knowledge has increased entrepreneurial activities which had contributed to development at all levels (Halkos & Bousinakis, 2012; Mwasalwiba, 2010). Matlay and Carey (2007) in their longitudinal case study research which was conducted over a period of ten years of 40 established and new universities, find that there is a consensus among stakeholders (researchers, business observers etc.) in the United Kingdom that entrepreneurship education has the capability to impact needed knowledge and skills on graduates to be able to become self-employed with sustainable ventures.

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Ahmad (2013) in his paper advocates that entrepreneurship education in the developing countries should be explicit enough to be embraced at all levels of educational systems in order to possess necessary knowledge and skills for venture creation. Matlay (2008) concludes that entrepreneurship education help students in the acquisition of knowledge, as it had positive impact on the 64 respondents in the sample, that none of them remained unemployed after graduation.

Menzies and Paradi (2003) document that 48% of engineering graduates that offered a course on entrepreneurship during their undergraduate studies started their own businesses while 25% of entire engineering graduates started their own businesses.

The implication is that since they were able to start their own businesses after graduation compared to those without entrepreneurial education, entrepreneurship education influenced their views on self-employment.

This supports the general contention that general education does not have much influence on individual entrepreneurial attitude (Peterman & Kennedy, 2003). Therefore, entrepreneurship education could be the panacea to unemployment which has weakened some developing countries' economy (Ahmad, 2013). Although potentials cannot be overlooked, entrepreneurship education is expected to continue to play significant role in shaping and modelling entrepreneurial mind set.

Some quitted schooling and subsequently became notable entrepreneurs, yet they cannot undermine education because the little hint from their high schools or colleges combined with the materials they read elicited their potentials and made positive impact on their lives. For example, Mark Zuckerberg, facebook founder reminisce on the social network he launched that, if he had not enrolled at Harvard University it would have been impossible. Ditto Steve Jobs, popular Apple entrepreneur and inventor said

"If I had never dropped in on that single course in college, the Mac would have never had multiple typefaces or proportionally spaced fonts" (Stanford Report, 2005).

Some prior researchers had claimed that entrepreneurship education does not have significant impact since entrepreneurship cannot be taught. There are divergent views on the impact of entrepreneurship education, while some scholars claim that the impact is significant others refute it for lack of empirical evidence (Connor, 2013; Graevenitz & Weber, 2011; Mwasalwiba, 2010; Von Graevenitz *et al.*, 2010).

EC (2012a) conducted a survey based on alumni of higher education institutions in Europe on those who actually attended entrepreneurship education and a control group that did not participate in this type of education. They document that entrepreneurship education makes a difference, it is on this premise that the EU 2020 strategy highlights the need to motivate the entrepreneurial mind-set of young people so as to focus on this major aspect that has the capability to transform or impact not only on the future of potential entrepreneur but on the society at large.

On the other hand, Mwasalwiba (2010) explores both empirical and theoretical research on existing literature to assess the impact of entrepreneurship education on its target audience and their teaching methods, 108 articles were reviewed in all. The results indicate that; educators hold contrasting view on what to teach and this has impacted negatively on the system of evaluating and assessing the outcome of entrepreneurship training. He also noted that, no substantial evidence as back up or proof of impact of entrepreneurship education on graduate performance, although it has influence on attitudinal change.

Similarly, Douglas and Shepherd (2002) noted that entrepreneurs are influenced by their upbringings and as such entrepreneurship education may not likely influence an individual to become an entrepreneur. However, another strand of literature holds that entrepreneurship education is positively related to students' future attitude

towards self-employment (Fayolle, Gailly, Lassas-Clerc, & Authors, 2008; Packham, Jones, Miller, Pickernell, & Thomas, 2010).

Iacobucci and Micozzi (2012) report that entrepreneurship education in Italian Universities are yet to come-up with the global trend, their empirical analysis was based on census of entrepreneurship courses and curricula run by Italian Universities. They note that, the role of entrepreneurship education at the university level cannot be undermined because it has the capability to enliven student's vision leading to the development of new idea in knowledge-intensive sectors. This by implication can influence their views on self-employment.

Consistent with Rae (2010) agrees that, the role of education in entrepreneurial capabilities is so germane in that the overall success of the new era depends on the effectiveness of entrepreneurship education and learning. However, entrepreneurship learning is constrained by the inability of the enterprise educators to meet challenges of creating enabling environment for productivity as a result of inadequate funding (Meager *et al.*, 2011). Therefore, entrepreneurship is expected to play a pivotal role in economic development but most institutions of higher learning in the developing countries are yet to flow along with this global trend.

Entrepreneurship education in developed countries like USA, Germany, UK etc. is encouraged and financially supported to invigorate entrepreneurial mind-set (Buller & Finkle, 2013; Etzkowitz, 2003; Finkle *et al.*, 2009). The consequential effects of inadequate funding will not only make economic growth stagnant but blurry, therefore enabling environment for self-employment should be a priority (Seelos &

Mair, 2012). Education generally illuminates and influences the mind-set virtually in every facet of human endeavour; it builds bridges, close gaps, electrify the brain and changes perception by modifying known to eject the unknown.

Based on this premise, education should be viewed as an agent with the ability to impact positively on potential and existing entrepreneurs (Wu *et al.*, 2008). Education has impacted positively on other professions such as medicine, engineering, architecture etc.; then entrepreneurship education should not be plump down as irrelevant to entrepreneurship or to the development of nascent entrepreneurs.

#### 2.4 Theory

Theory development creates room for a field of study to take root and be better understood; entrepreneurship is interdisciplinary as such is bound to have different approaches with divergent views. Every building rest on foundation so also practice rest on theory.

#### 2.4.1 The Knowledge Spillover Theory of Entrepreneurship

The Knowledge Spillover Theory of Entrepreneurship was introduced by Audretsch (Audretsch *et al.*, 2005), he acknowledges that, knowledge properly annexed has capacity to sharpening views on self-employment and increase start-ups through entrepreneurial education. He stresses further that only in traditional theory knowledge remains insignificant.

The knowledge spillover theory (Audretsch *et al.*, 2005), predicts that knowledge gained by individuals either through work experience or attendance at university would provide necessary incentives for them to start their own businesses. Meager *et al.* (2011) postulate that experience from previous work must have assisted those from paid employment to become self-employed. This implies that ability to apply previous knowledge cum the experience gained earlier can be a factor for being self-employed. Entrepreneurship program require setting of achievable goals for knowledge and skills in other to strike a balance between theoretical and practical (Meager *et al.*, 2011). Entrepreneurs require skills, knowledge and attitudes rooted in effective training so as to be proactive for maximum efficiency and to unravel current challenges (Henry *et al.*, 2005).

The knowledge spillover theory of entrepreneurship which is generalized as knowledge transfer is applicable in this study because acquired knowledge in entrepreneurship education is expected to be transferred into productive venture creation. Opportunity driven entrepreneur may pursue venture creation by choice, but Storen (2014) report that two third of entrepreneurship graduates would opt for something else if opportunity arises.

#### 2.4.2 Theory of Reasoned Action

Theory of reasoned action as emphasized by Ajzen and Fishbein (1980) postulate that performing a particular behaviour will lead to a specific outcome. Meager *et al.* (2011) report that push or pull factors may be responsible for chosen to become self-employed. He further argued that desired outcome to be financially independent

through business venture which is the "push factor", may arise as a result of inability to (necessity entrepreneurs) get well-paid job. He concluded that as such, this can prompt such individuals to become self-employed as means to an end.

The subjective norm as explained in TORA is a person's perception of other's opinion. Entrepreneurial activity in U.S can be attributed to entrepreneurial culture (Kuratko, 2009). Some cultural domain allows creativity to thrive and highly encourage while some others nib it (Ferrari *et al.*, 2009). Consistent with earlier researchers, some individuals project themselves as deficient in entrepreneurial skills due to their cultural environment or specific cultural origin and religious settings which may be for or against self-employment (Aldrich & Zimmer, 1986; Etzkowitz, 2003).

Sheppard, Hartwick, Warshaw, and Hartwick (1988) "Ajzen and Fishbein model deals with those behaviour that are under a person's volitional control" (p. 325). Graduates' perception of entrepreneurship education is capable of influencing students to be self-employed which depends on whether they are motivated or not.

#### 2.5 Chapter summary

Chapter two discussed earlier researchers' opinion on views on self-employment, entrepreneurship education, communication skills, innovation and technical knowledge. The supporting theories were equally examined, the knowledge spillover theory of entrepreneurship and theory of reasoned action.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter presents the theoretical framework and research methodology procedure, the data collection and analysis as well as the framework on which this study had been built. The chapter is organized as follows; section 3.1 presents the introduction followed by research framework in 3.2. Section 3.3 consists of hypotheses development with the following construct; communication skills, innovation and technical knowledge are the independent variables. Section 3.4 presents research design. This was followed by measurement of variables in section 3.5 and data collection in section 3.6. Section 3.7 presents techniques of data analysis. Section 3.8 summarizes the chapter.

#### 3.2 Research Framework

Entrepreneurship education as taught in the universities is to prepare graduates with the necessary knowledge and skills to develop to successful entrepreneurs. Entrepreneurship education was introduced into the Malaysian Higher Institution of learning to support graduates' venture creation (Gafar, Yusoff, Kasim *et al.*, 2015). The knowledge spillover theory predicts a linkage between knowledge and self-employment (Audretsch *et al.*, 2005). This knowledge is acquired through entrepreneurship education and work experience. In this study, one indicator was

adapted from each of the major indicators from Elmuti *et al.* (2012) which are technical knowledge, communication skills and innovation.

# **Independent variables Dependent variable** Effective communication skills Self-employment Innovation Technical knowledge

Figure 3.1
Research Framework

#### 3.3 Hypotheses Development

Three hypotheses were examined and tested in this study, drawn on the findings of empirical studies to expound the desired or expected influence of entrepreneurship education on students' views on self-employment.

H1: There is a relationship between communication skills and students' views on selfemployment.

H2: There is a relationship between innovation and students' views on selfemployment.

H3: There is a relationship between technical knowledge and students' views on selfemployment.

# 3.3.1 The Influence of Communication Skills on Students' Views on Self-Employment.

Baron (2000) argued that entrepreneurial success does not depend solely on cognitive factors but other factors such as communication otherwise known as social competence are essential. He noted that entrepreneur high in social competence will create positive impression, gain access to potential customers and be able to perform optimally in any position. Zhou and Xu (2012) affirmed that interpersonal communication skill is essential therefore it should be included in the curriculum.

They submit that Tsinghua University through its international connection had been able to engage the services of veteran entrepreneurs and experts in innovation from Asia-Pacific and United States to enliven innovative entrepreneurial skills in the

university. Similarly, Mohr and Spekman (1994) concluded that communication strategies are essential for partnership success they suggested that, entrepreneurs must develop these skills as quality of information influences decision making. Great business ideas or concept with promising ventures may yield only negative result when poorly communicated (Middleton, 2010). This hypothesis is therefore presented.

H1: There is a relationship between communication skills and students' views on selfemployment.

#### 3.3.2 The Influence of Innovation on Students' Views on Self-Employment

Baron (2002) noted that opportunity recognition often fast-track new venture. He reports that detection theory (correct identification, miss, false alarm and correct rejection), regulatory focus theory (attaining positive outcome and avoiding negative outcome) and entrepreneurial alertness (ability to notice, without search) are useful in opportunity recognition. Innovation is an important element in new venture creation and success (Baron & Tang, 2011). Zhou and Xu (2012) in their findings revealed that, the pilot study which was conducted in 2008 to develop relationship between innovation and entrepreneurship education had become one of the edifices channelling innovative minds in China.

The traditional society assume that after certain age learning and adaptation cease but fail to realize that in two decades or less new skills, new knowledge will be inevitable.

McDonald was not an inventor, but was able to repackage an existing business in a new form to a new market. Entrepreneurship education is expected to develop

efficacious individuals who will graduate from the educational system to possess ability to innovate and establish new venture. The above discussion leads to the second hypothesis as stated below.

H2: There is a relationship between innovation and students' views on selfemployment.

# 3.3.3 The Influence of Technical Knowledge on Students' Views on Self-Employment

Audretsch *et al.*(2005) in their empirical study reported that, organizations that invest more in new knowledge had higher startup rates than those that invested less. This correlates with Q 3 that does technical knowledge influence students' view on self-employment? The actualization of a new business is the evidence that opportunity has been recognized.

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Jones, Matlay, and Maritz (2012) posit that entrepreneurship education drives initiative to venture creation by invigorating entrepreneurial mind-set in students while needed skills and knowledge are being acquired during the teaching process.

Omerzel and Antoncic (2008, p.2) rightly noted that "organizations are becoming more knowledge intensive and they are hiring "minds" more than "hands". Zhou and Xu (2012) submit that "Know about Business" (KAB) was introduced in 2005 to equip student's knowledge and skills so as to start their own enterprises.

Matlay and Carey (2007) explain that entrepreneurship education has the capability to impact needed knowledge and skills on graduates' entrepreneurs to be able to launch

sustainable ventures. Following Wu *et al.* (2008) in their findings on Tongji University Shanghai, noted that entrepreneurship education curriculum made no significant impact on students' entrepreneurial mindset. Despite the unfavorable outcome, the authors suggested that entrepreneurship education should be offered by all university students without exception. This leads to the presentation of the third hypothesis below.

H3: There is a relationship between technical knowledge and students' views on selfemployment.

#### 3.4 Research Design

The research design is the master plan which summarizes the methods and procedures for collecting and analyzing the required information (Zikmund, Babin, Carr & Griffin, 2009). Framework helps in effective planning of actions involve in research project. There are different research methods such as observation, interview, questionnaire etc. Questionnaire was considered the most appropriate in this study.

Therefore, quantitative approach was used to determine the influence of entrepreneurship education on students' views on self-employment. The objective of this study is to examine the influence of entrepreneurship education and students' views on self-employment, so descriptive research is the most appropriate. The data used were obtained from questionnaire survey. Data analysis used in this study was based on Statistical Package for Social Sciences (SPSS) Version 16.0.

#### 3.5 Measurement of Variables

The three page questionnaire was divided into two parts, Part 1 and Part 2. Part 1 is subdivided into four section, these are Section A, Section B, Section C and Section D. Section A consisted of items relating to technical knowledge, that is, respondent's knowledge on entrepreneurship as a course and the impact it had on them. Section B contained items relating to communication skills, what the respondents feel about communication and how it can be related to entrepreneurial performance. Section C consisted of innovation, to know whether innovation can contribute positively to entrepreneur's self-reliance. Section D consisted of items used to measure respondent's views on self-employment. Part 2 consisted of demographic characteristics of the respondents.

#### 3.5.1 Research Instrument

Table 3.1

Literature support for Study Variables

Literature support for S		T
Construct	Literature Support	Variable Number
Effective communication skills	Derived from Fisher, Janet Cameron (1980)	ECS I – ECS 5
Innovation	Zhou and Goerge,2001	INN 1- INN 5
Technical knowledge	Adapted from(Jones et al., 2012)	TEK 1- TEK 8
Views on self- employment	Adapted from (Gangaram Singh & DeNoble, 2003)	VSE 1- VSE 5
Demographic Data	Adapted from (Wu et al., 2008)	Gender, Age, Ethnicity, Prior education, Past or present employment, organization and Working experience

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Table 3.2 *Items for Measurement of Variables* 

S/No.	Items	Code
	Views on self-employment (5 items)	
1.	I have preference for self-employment than paid employment.	VSE1
2.	I have motivation from within to start my own business.	VSE2
3.	I have been equipped with needed entrepreneurial skills to become successful entrepreneur.	VSE3
4.	Self-employment is now my first priority because of the knowledge gained in entrepreneurship education program.	VSE4
5.	In my view, a self-employed individual without innovation and creativity may not become a successful entrepreneur.	VSE5
	Communication skills (5 items)	
1.	Communication is the most important tool for getting things done.	ECS1
2.	Entrepreneurship education empowers a person's communication skills so as to be effective and efficient as an entrepreneur.	ECS2
3.	Actual proficiency in English serves as a predictor for entrepreneurial success.	ECS3
4.	Effective communication skills can enhance self-image.	ECS4
5.	Communication link and guidance from real life entrepreneurs can act as catalyst for business growth.	ECS5
	Innovation (5 items)	
1.	Creative university environment inspires me to develop ideas for new business.	INN1
2.	Mentoring is an essential ingredient required before innovative ideas can evolve.	1NN2
3.	Learning through observation builds innovative spirit; therefore team work should be encouraged.	INN3
4.	Entrepreneurial start-up and continual success depends on possessing personal innovative ideas.	INN4
5.	Entrepreneurship education has a tremendous role to play in developing innovative aptitude.	INN5
	Technical knowledge (8 items)	
1.	Type of entrepreneurship course offered had influence on development of entrepreneurial skills.	TEK1
2.	Acquiring adequate entrepreneurship knowledge depends on types of teaching methods employed during entrepreneurship course.	TEK2
3.	In my opinion, entrepreneurship education plays visible roles in developing entrepreneurial skills.	TEK3
4.	Paid employment is not as stressful as self-employment.	TEK4
5.	Acquirement of entrepreneurship knowledge depends on the institution's curriculum and infrastructure.	TEK5
6.	Knowledge and expertise are unquestionable attributes for entrepreneurial success.	TEK6
7.	Entrepreneurship education helps students acquire theoretical knowledge without practical experience on how to be self-employed.	TEK7
8.	Technology has a significant impact on education but new technology skills must be developed to foster entrepreneurial skills.	TEK8

The questionnaire consist of non-dichotomous data of multiple choice items of five-point Likert scales spanning from 1 (Strongly Disagree) to 5 (Strongly Agree). The use of Likert scale according to Garner (1960) (In Matell & Jacoby, 1971) submit that no single number is appropriate for all situations, while (Matell & Jacoby, 1971) reported that limiting the scale to 5 or 7 may lead to inaccurate results. They suggested that the optimal number should be based on the conditions of measurement. Opposed to this is the results of empirical investigations of Bendig (1954) and Komorita (1963) (In Matell & Jacoby, 1971) that irrespective of the number of scale used, reliability remains unbiased. This justified the decision of the researcher to use five-point Likert scale.

#### 3.5.2 Population and Sampling Design

According to Hair, Black, Babin, Anderson and Tatham (2010) a research population is made up of data and information to be analysed. Those within the scope of the research interest at that period of time are the research population. This study examines postgraduate students in UUM. But the population frame is limited to postgraduate' students in OYA Graduates School of Business, Universiti Utara Malaysia. Randomly selected few were included as our respondents using Krejcie and Morgan (1970) to determine sample size from the given population. This study focuses on postgraduate students which comprises of Master and Doctoral Research students.

Sampling is a process through which any group of individuals are selected from a given population for the purpose of statistical analysis. There are different types of

sampling techniques but this study adopts the simple random sampling technique. The essence of this sampling technique to the study is to ensure lack of bias by the researcher and for true representativeness.

The total population of active postgraduate students in OYA Graduates School of Business UUM as at the time of collecting our data was 741. That is, the total number of postgraduate students resident in UUM, following Krejcie and Morgan (1970) a population of 750 requires a sample size of 254. Self-administered questionnaires were distributed to postgraduate students based on simple random sampling. 250 questionnaires were given out but a total of 184 were returned.

#### 3.5.3 Unit of Analysis

It is the entity the researcher wants to study. In this research paper the unit of analysis was postgraduates' students in OYA Graduates School of Business, Universiti Utara Malaysia.

#### 3.6 Data Collection

Data collection is an integral part of the research design. Data can be obtained from different sources primary and secondary, but this study used primary data. In this research paper, quantitative method was employed for data collection.

#### **3.6.1 Data Collection Procedure**

The researcher has a sampling frame in order to get the right sample, the researcher contacted OYA for names and email of postgraduate students in OYA, as well as statistics of postgraduate students in OYA. Postgraduate students from OYA Graduate School of Business, UUM were chosen randomly as the sample size. Postgraduate students from different countries like Malaysia, Nigeria, Jordan, Libya, Saudi, Thailand, Pakistan etc.

The process of data collection was done procedurally, which was in four stages; development of questionnaire, pilot test, administering the questionnaire, and data analysis. Stage one covered development of questionnaire following previous studies in related field. This was followed by face and content validity, which centres on what to measure. The purpose of face and content validity was to ascertain completeness, quality and whether all the right items were included in the questionnaire. In this research this was carried out by four experts. The first person was my supervisor, who is an expert in questionnaire design. Next was a professor in entrepreneurship, followed by a senior lecturer in UUM that also used questionnaire for his PhD programme, and last but not the least was another senior lecturer also in UUM (Wells, Shea, O'connell, Peterson, Welch, Losos, & Tugwell, 2000). Necessary corrections were made and then the pilot study was conducted, this was the second stage.

#### 3.6.2 Pilot Test

Pilot test was conducted to examine the validity and reliability of the research instruments. Reliability deals with how the instrument is to be measured, while validity deals with what to measure (Hair *et al.*,2010). Thirty questionnaires were distributed for the pilot study, after which, the reliability test was run. Cronbach's alpha measures the internal consistency of all the items to ensure validity. Cronbach's alpha is an index of reliability and the expected range is between 0.70-0.95 (Tavakol & Dennick, 2011). In this study, the range of the Cronbach's alpha is from 0.738 to 0.834 as shown in Table 3.6.3. The result of the Cronbach's alpha, indicates the validity and reliability of the research instruments.

Table 3.3

Pilot Study Reliability and Validity Test

S/N	Constructs No. of items Cronbacl		Cronbach's	s Alpha
1	Views on self-employment		5	0.834
2	Communication skills	Utara Ma	laysia	0.814
3	Innovation	:	5	0.760
4	Technical knowledge	:	8	0.738

#### 3.7 Techniques of Data Analysis

Data were analysed using IBM Statistical Program for Social Sciences (IBM SPSS Version 16.0) software. The data analysis in this study was based on descriptive, correlation and multiple regression analysis.

#### 3.8 Chapter Summary

Chapter three discussed the research framework and research methodology procedure. Each of the construct was discussed in relation to the hypotheses development. Research designed was stated, while each of the variables was defined briefly. The research instrument was explained, followed by data collection procedure. Lastly, in this chapter techniques of data analysis were stated.



#### **CHAPTER FOUR**

#### DATA ANALYSIS AND DISCUSSION

#### 4.0 Introduction

This chapter presents the analysis and discussion of the findings of this study that focuses on the relationship between self-employment and entrepreneurship education. The chapter is divided into different sections, with the respondents' rate in section 4.1. Section 4.2 provides methods adopted for the data cleaning process. Section 4.3 presents descriptive statistics, while section 4.4 contains the validity and reliability tests. Section 4.5 presents correlation analysis, while section 4.6 presents main regression findings. Section 4.7 summarizes the chapter.

# 4.1 Respondents' Rate Universiti Utara Malaysia

The sample for this study is from the population (741) of the postgraduate students at Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia main campus as at November 2015. Following Krejcie and Morgan (1970), a population of 750 requires a sample size of 254. 250 questionnaires were sent out, but a total of 184 were returned, out of which 14 were unusable. 10 outliers were deleted. The summarized questionnaire response is shown in Table 4.1.

Table 4.1 *Questionnaire Response* 

-	Questionnaire response		
	Quantity Response		
		(%)	
Questionnaire distributed	250		
Questionnaire not returned	66		
Questionnaire returned	184		
Incomplete responses	14		
Useable questionnaires	170	68%	
Outliers deleted	10		
Total questionnaires for analysis	160	64%	

The statistics of the respondents' profile is presented in Table 4.2 while their profile is shown in Table 4.3. The data indicates that out of the 160 respondents 75 (46.90%) are males while 85 (53.10%) are females. The highest respondents are those in the age bracket of 25 – 34 years representing 61.20% of the sample, while those above 45 years were the lowest with 8 representing 5% of the sample. The Malays constitute 96 (60%) followed by the Chinese with 19 (11.90%). The Indians represent 7 (4.40%) and others constitute 38 (23.80%). Those from Accounting and Finance formed the highest respondents with 48 (30.00%).

Table 4.2 Statistics on Respondents' Rate

		GEN	AGE	ETH	COU	JOB	ORG	EXP
N	Valid	160	160	160	160	160	160	160
	Missing	0	0	0	0	0	0	0
Minim	num	1	1	1	1	1	1	1
Maxin	num	2	4	4	4	4	4	4

Table 4.3 Respondent's Rate (N = 160)

	Variable		Frequency	Percentage
1.	Gender	Male	75	46.90
		Female	85	53.10
2.	Age	Below 25 Years	36	22.50
		25 -34 Years	98	61.20
		35 -44 Years	18	11.20
		45 Years and above	8	5.00
3.	Ethnicity	Malay	96	60.00
		Chinese	19	11.90
		Indian	7	4.40
		Others	38	23.80
4.	Highest area of	Management	45	28.10
	interest			
		Accounting and Finance	48	30.00
	UTARA	Human Resources	38	23.80
		Marketing	29	18.10
5.	<b>Employment Status</b>	Self-employed	22	13.80
		Employed	64	40.00
		Not employed	55	34.40
	BUDI BALCA	Not applicable	M <sub>19</sub> laysia	11.90
6.	Organization	Public Sector	46	28.80
		Private Sector	42	26.20
		Not-for-profit	4	2.50
		Not applicable	68	42.50
7.	Working Experience	0-4 Years	79	49.40
		5 – 9 Years	29	18.10
		10 Years and above	19	11.90
		Not applicable	33	20.60

They are closely followed by Management with 45 (28.10%). Next is Human Resources with 38 (23.80%) and the lowest is from Marketing 29 (18.10%). The employed were the highest respondents with 64 (40.00%), next is the unemployed

with 55 (34.40%). The self-employed accounted for 22 (13.80%) of the respondents those without any affiliation accounts for 19 (11.90%). Those without affiliation to any organization were 68 (42.50%); those engaged in the public sector were 46 (28.80%), next is private sector employees with 42 (26.20%) followed by not-for-profit organization employees with 4 (2.50%). The respondents with working experience of 0 - 4 years constitute 79 (49.40%) of the study sample, followed by those without any working experience 33 (20.60%). Those with working experience between 5 - 9 years form 29 (18.10%) of the sample and those with working experience of 10 years and above were 19 (11.90%).

#### 4.2 Data Cleaning

Coakes *et al.* (2008) suggest that the ratio of cases to variables should be 5:1. Consistent with Coakes *et al.* (2008), Hair *et al.* (2010) suggest that the ratio of cases to variables should be 5:1 with an ideal ration of 20:1. For this study with 3 independent variables, the ideal sample size should consist of 60 cases. The sample size of 160 cases shows that the study satisfies the condition for conducting multiple linear regression analysis.

#### 4.2.1 Outliers

An outlier is a case data with extreme value compared to the other cases whose inclusion could distort statistical results (Tabachnick & Fidell, 2007). There are several methods of detecting outliers that include Leverage, Cook's Distance, and Mahalanobis distance. This study used Mahalanobis distance for detecting the study

outliers. A total of 10 cases with Mahalanobis distance greater than 35.718 for critical  $x^2$  at 0.005 alpha level were deleted.

#### 4.2.2 Normality

This study examined the normality assumption through the skewness and kurtosis statistics shown in Table 4.4. The skewness and kurtosis statistics show that they are within the acceptable range of -0.5 to 0.5 and -1 to 1 respectively (Foster, Stine & Waterman, 1998).

Table 4.4
Skewness and Kurtosis Statistics

Variables	Skewness	Kurtosis
Views on self-employment	-0.47	0.63
Effective communication skills	-0.37	0.76
Innovation	-0.18	0.01
Technical knowledge acquired through entrepreneurship education	-0.53	0.55

#### Histogram

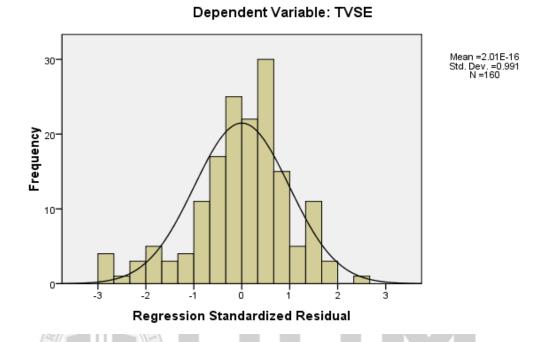


Figure 4.1

Histogram of the Regression Residuals

The histogram was further used to establish the skewness and kurtosis tests. Figure 4.1 indicates that data are normally distributed; therefore the normality assumption is satisfied in this study.

#### Normal P-P Plot of Regression Standardized Residual

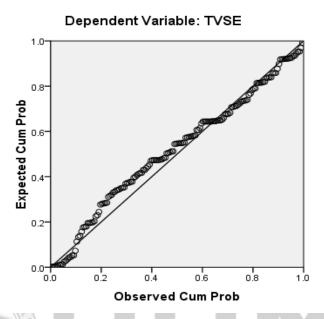


Figure 4.2

Testing Normality using Normal Probability Plot

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Table 4.5 *Multicollinearity Test* 

	Collinearity	Statistics
Model	Tolerance	VIF
TECS	0.700	1.429
TINN	0.595	1.679
TTEK	0.762	1.312

Multicollinearity test was conducted through the variance inflation factor (VIF) shown in Table 4.5, and the result shows that the highest VIF is 1.679. The issue of multicollinearity is not expected to affect this study.

#### 4.3 Descriptive Statistics

Table 4.6 presents the descriptive statistics for the study sample. The views on self-employment have a mean of 14.85 with a minimum of 8.00 and maximum of 20.00. The communication skills dimension ranges from 10.00 to 20.00 with a mean of 16.61. Innovation has a mean of 19.89 ranging from 14.00 to 25.00. Technical knowledge acquired through entrepreneurship education has a mean of 11.56 with a minimum of 7.00 and maximum of 15.00. The skewness and kurtosis statistics show that they are with the acceptable range of -0.5 to 0.5 and -1 to 1 respectively (Foster, Stine & Waterman, 1998).

Table 4.6

Descriptive Statistics of Study Sample (N=160)

				Std.		
Variables	Min.	Max.	Mean	Deviation	Skewness	Kurtosis
TVSE	8.00	20.00	14.85	2.58	-0.47	0.63
TECS	10.00	20.00	16.61	1.88	-0.37	0.76
TINN	14.00	25.00	19.89	2.32	-0.18	0.01
TTEK	7.00	15.00	11.56	1.53	-0.53	0.55

Table 4.7 shows the result for technical knowledge acquired through entrepreneurship education. For the three items factored into this part the mean ranges from 3.67 to 3.90. The highest mean of 3.90 is from the item "Type of entrepreneurship course offered had influence on development of entrepreneurial skills" (TEK1). This is followed by "Acquiring adequate entrepreneurship knowledge depends on types of teaching methods employed during entrepreneurship course" (TEK2) with a mean of 3.79. The lowest mean of 3.67 is from the statement "In my opinion, entrepreneurship education plays visible roles in developing entrepreneurial skills" (TEK3). This

implies that the entrepreneurial curricula and mode of teaching are important for developing potential successful entrepreneurs.

Table 4.7

Descriptive Statistics of Technical Knowledge (N=160)

	Minimum	Maximum	Mean	Std. Dev.
Type of entrepreneurship course offered had influence on development of entrepreneurial skills (TEK1).	2.00	5.00	3.90	0.66
Acquiring adequate entrepreneurship knowledge depends on types of teaching methods employed during entrepreneurship course (TEK2).	2.00	5.00	3.79	0.65
In my opinion, entrepreneurship education plays visible roles in developing entrepreneurial skills (TEK3).	1.00	5.00	3.67	0.81

Four items were factored into the effective communication skills dimension as presented in Table 4.8. The four items show mean greater than 4.00 with the statement that "Communication is the most important tool for getting things done" (ECS1), reporting the highest mean of 4.22. The finding indicates that communication is vital to any business venture.

Table 4.8

Descriptive Statistics of Communication Skills (N=160)

	Minimum	Maximum	Mean	Std. Dev.
Communication is the most important tool for getting things done (ECS1).	1.00	5.00	4.22	0.70
Entrepreneurship education empowers a person's communication skills so as to be effective and efficient as an entrepreneur (ECS2).	3.00	5.00	4.11	0.60
Effective communication skills can enhance self-image (ECS4).	2.00	5.00	4.14	0.58
Communication link and guidance from real life entrepreneurs can act as catalyst for business growth (ECS5).	2.00	5.00	4.14	0.58

Table 4.9 shows the items for measuring the innovation dimension. The mean range is from 3.92 to 4.04. The highest mean of 4.04 is provided by item INN4 "Entrepreneurial start-up and continual success depends on possessing personal innovative ideas." The second highest mean is from the statement "Creative university environment inspires me to develop ideas for new business" (INN1), at 4.00. The result shows that "Entrepreneurship education has a tremendous role to play in developing innovative aptitude" (INN5), with a mean of 3.96. The role of entrepreneurship education in promoting innovative ideas in prospective entrepreneurs cannot therefore be underestimated.

Table 4.9

Descriptive Statistics of Innovation (N=160)

	Minimum	Maximum	Mean	Std. Dev.
Creative university environment inspires me to develop ideas for new business (INN1).	2.00	5.00	4.00	0.65
Mentoring is an essential ingredient required before innovative ideas can evolve (INN2).	2.00	5.00	3.92	0.67
Learning through observation builds innovative spirit; therefore team work should be encouraged (INN3).	2.00	5.00	3.98	0.70
Entrepreneurial start-up and continual success depends on possessing personal innovative ideas (INN4).	3.00	5.00	4.04	0.55
Entrepreneurship education has a tremendous role to play in developing innovative aptitude (INN5).	2.00	5.00	3.96	0.62

The mean for views on self-employment ranges from 3.63 to 3.88 as shown in Table 4.10. The highest mean is from the item "I have motivation from within to start my own business" (VSE2), at 3.88. This is followed by the statement "Self-employment is now my first priority because of the knowledge gained in entrepreneurship education program" (VSE4), at 3.87. The third highest mean is from the item "I have

preference for self-employment than paid employment (VSE1), at 3.69. The result shows that entrepreneurship education could motivate students to start their business ventures.

Table 4.10

Descriptive Statistics of Views on Self-Employment (N=160)

	Minimum	Maximum	Mean	Std. Dev.
I have preference for self-employment than paid employment (VSE1).	1.00	5.00	3.69	0.82
I have motivation from within to start my own business (VSE2).	2.00	5.00	3.88	0.74
I have been equipped with needed entrepreneurial skills to become successful entrepreneur (VSE3).	1.00	5.00	3.63	0.86
Self-employment is now my first priority because of the knowledge gained in entrepreneurship education program (VSE4).	2.00	5.00	3.87	0.69



The result of the Bartlett test of sphericity indicates there are correlations among the items as it shows a significant value of 0.000. This thus satisfies the condition for conducting factor analysis. The Kaiser-Meyer-Olkin (KMO) test is also used to examine the presence of correlations among the items (Hair *et al.*, 2010). The value of 0.820 is greater than 0.5 indicates that the matrix variables can be factored. This result is shown in Table 4.11.

Table 4.11
Result of Kaiser-Meyer-Olkin Test and Bartlett Test of Sphericity

	Items	KMO	Bartlett's Test Sig.
Self-Employment	16	0.820	0.000

#### 4.5 Reliability Test

The following are the four proposed dimensions for self-employment: views of self-employment, communication skills, innovation, and technical knowledge acquired from entrepreneurship education. Five items were used for measuring views on self-employment, five for effective communication skills, five for innovation, and eight for technical knowledge acquired from entrepreneurship education. To increase the

Table 4.12 *Cronbach's Alpha for Initial Reliability* 

estions	Cronbach's Alpha	
5	0.752	
5	0.617	
5	0.773	
8	0.636	
	8	

Table 4.13
Cronbach's Alpha for Revised Reliability

Dimensions	Number of questions	Cronbach's Alpha
Views on Self Employment (VSE)	4	0.788
Effective Communication Skill (ECS)	4	0.747
Innovation (INN)	5	0.773
Technical Knowledge (TEK)	3	0.645

reliability coefficient VSE5 was dropped from the views on self-employment dimension, ECS3 was dropped from effective communication skills dimension, and TEK4 to TEK8 were dropped from the technical knowledge acquired from entrepreneurship education dimension. The result shows improvement in the revised Cronbach's alphas shown in Table 4.13 compared to the Cronbach's alphas for the

initial reliability shown in Table 4.12. These items were dropped because they showed low item-total correlations compared to others in their group.

### **4.6 Correlation Analysis**

The correlation matrix is used to determine the extent of correlation between the variables. A correlation of 0.8 between the independent variables is considered high (Hair *et al.*, 2010), and could be an indication of the presence of multicollinearity.

Table 4.14

Pearson Correlation Matrix

	TVSE	TECS	TINN	TTEK
TVSE	1			
TECS	0.198*	1		
	0.012			
TINN	0.349**	0.545**	1	
	0.000	0.000		
TTEK	0.441**	0.316**	0.484**	1
	0.000	0.000	0.000	

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation matrix is presented in Table 4.14. The result indicates that there is a significant positive correlation between views on self-employment and effective communication skills gained through entrepreneurship education at 5% level (r=0.198). The relationship between views on self-employment and innovation is significant at 1% with a correlation (r=0.349). Views on self-employment is significantly positively correlated with technical knowledge acquired through entrepreneurship education at 1% (r=0.441). The highest correlation (r=0.545) is

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

between effective communication skills and innovation, there is therefore no issue of multicollinearity.

### **4.7 Main Regression Findings**

Table 4.15
Regression Results for Views on Self-Employment

			Standardized		
	<b>Unstandardized Coefficients</b>		Coefficients		
Variables	В	Std. Error	Beta	t-stat	<i>p</i> -value
(Constant)	4.163**	1.939		2.147	0.033
TECS	-0.020	0.117	-0.015	-0.172	0.864
TINN	0.204**	0.102	0.184	2.004	0.047
TTEK	0.603***	0.137	0.357	4.405	0.000
N	· · · · · · · · · · · · · · · · · · ·	160	<u> </u>	<del>.</del>	
$\mathbb{R}^2$		0.219			
Adjusted R <sup>2</sup>		0.204			
F-value		14.565***			

<sup>\*\*\*, \*\*</sup> Significant at 1% and 5% level respectively

The F-value at 14.565 is significant at 1% indicating that the model is appropriate. The Adjusted  $R^2$  of 0.204 shows that 20.40% of the variation in views on self-employment is explained by the predictor variables.

The regression result is presented in Table 4.15. It shows that innovation is significantly positively related to views on self-employment at 5% level ( $\beta$  = 0.204, p = 0.047). Hypothesis 2 is therefore supported.

Technical knowledge has influence on students' views on self-employment at 1% level ( $\beta$  = 0.603, p = 0.000). There is support for hypothesis 3. The result however indicates that communication skill is not related to self-employment. There is no support for hypothesis 1.

## 4.8 Chapter Summary

This chapter contained the analysis and discussion of the findings of this study. The study examined the influence of entrepreneurship education on students' views on self-employment. The findings were tabulated for a better understanding, followed by discussion on each of the findings.



#### **CHAPTER FIVE**

#### SUMMARY AND CONCLUSION

#### 5.0 Introduction

This chapter discusses the results of findings from chapter four. The chapter contained 6 sections. Section 5.1 consists of discussion base on each of the hypotheses, followed by sections 5.2 and 5.3 which present theoretical implications as well as managerial implications of the research. Sections 5.4 and 5.5 present limitation of the study and recommendations of the study, and lastly 5.6 presents the conclusion.

#### 5.1 Discussion

The aim of this paper is to examine the influence of entrepreneurship education and students' views on self-employment. The findings had been analyzed using linear regression analysis technique. The findings are discussed in details.

# 5.1.1 Hypothesis 1: There is a Relationship between Communication Skills and Students' Views on Self-Employment.

The findings in the study show a complete contrast of this hypothesis, there is an insignificant relationship between these two variables, communication skills and views on self-employment. Communication skills do not have influence on students' views on self-employment. Generally, issue of communication in entrepreneurship

domain seems very scanty. Report from one of the paper reviewed by Zhou and Xu (2012) revealed that students desires that interpersonal communication skills be included in entrepreneurship curriculum. Mwasalwiba (2010) confirm this in his article, where a total of 108 articles were reviewed, out of which 21 were reviewed to identify the most common subjects or course contents in a specific entrepreneurship programme. Out of 18 subjects identified communication skills was second lowest in the rank. However, Gibb (2000) specifically mentioned that effective communication is important but not fully related to the idea of 'enterprising' young person which support the result of this findings that communication skills is not related to self-employment. There is no support for hypothesis 1.

# 5.1.2 Hypothesis 2: There is a Relationship between Innovation and Students' Views on Self-Employment.

The findings provide support for the hypothesis. Innovation has influence on students' views on self-employment. Hypothesis 2 is therefore supported. This agrees with earlier researchers (Hamidi *et al.*, 2008; Lundqvist & Middleton, 2010; Nwekeaku, 2013; Raju *et al.*, 2015) that innovation is germane without which venture creation may be impracticable. Galindo and Méndez (2014) affirm that entrepreneurship and innovation are positively related in terms of enhancing economic growth. This hypothesis support Dobni (2014) that innovation should be enhanced through educational system in other to build innovative community.

# 5.1.3 Hypothesis 3: There is a Relationship between Technical Knowledge and Students' Views on Self-Employment.

The findings indicate that technical knowledge has influence on students' views on self-employment. There is support for hypothesis 3. Consistent with previous researchers (Elmuti *et al.*, 2012; European Commission, 2012b; Henderson & Robertson, 2000; Turker & Selcuk, 2009) that found entrepreneurship education made impact on self-employment or venture effectiveness.

In sum, of the three hypotheses in the study, technical knowledge and innovation are significant while communication skill is insignificant. Since the study actually aim to study students' views on self-employment, there is the possibility as human to shift ground when situation changes. Turker and Selcuk (2009) pointed out that perception and reality differs. Baron (2002) human perception sometimes may not always give the best judgment.

### **5.2 Theoretical Implications**

Consistent with previous studies on entrepreneurship education and views on self-employment, findings from this study shows that technical knowledge and innovation have influence on students' views on self-employment. This study contributes to prior research on factors that can influence self-employment, which includes technical knowledge and innovation. However, the study reveals the need for further clarification or evidence on the impact of communication skills on self-employment.

This study equally finds support for the use of the knowledge spillover theory of entrepreneurship.

### **5.3 Managerial Implications**

The purpose of this study is to examine the influence of entrepreneurship education on students' views on self-employment, by examining the variables; technical knowledge, innovation and communication skills and then develop a model as linkage between them. This study demonstrates that policy makers and educators should prioritize technical knowledge and innovation for nascent entrepreneurs to perform optimally.

#### 5.4 Limitations of the Study

The study has some limitations which must be pointed out. This study has been carried out within a limited time frame. This study is limited to postgraduate students in Othman Yeop Abdullah (OYA) Graduate School of Business in Universiti Utara Malaysia (UUM).

#### 5.5 Recommendations for Future Study

Future study can equally embrace all postgraduate students in Universiti Utara Malaysia for wider sample size. This can then be conducted in a way to compare entrepreneurship students in college of business with students from other colleges.

Future study can increase the number of variables for a better assessment of the impact of entrepreneurship education on self-employment. Moreover, future researchers can conduct this study using only alumni from Othman Yeop Abdullah (OYA) Graduate School of Business, Universiti Utara Malaysia (UUM), to assess the impact of entrepreneurship education on self-employment after graduation.

#### 5.6 Conclusion

The influence of entrepreneurship education and students' views on self-employment was examined with related variables. The result analyses revealed that two of the variables were statistically significant confirming prior expectation; that is, technical knowledge and innovation. Moreover, the result indicated that entrepreneurial curricula and mode of teaching are important for developing potential entrepreneurs. The indication is that policy makers and educators should prioritize technical knowledge for nascent entrepreneurs to perform optimally.

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