ENTREPRENEURSHIP EDUCATION AND STUDENTS' VIEWS ON SELF-EMPLOYMENT AMONG INTERNATIONAL POSTGRADUATE STUDENTS IN UNIVERSITI UTARA MALAYSIA

Gbemisola Titilayo Odewale, University of KwaZulu-Natal, South Africa
Shamsul Huda Abd Hani, Universiti Utara Malaysia
Stephen O Migiro, University of KwaZulu-Natal, South Africa
Patrick Olufemi Adeyeye, University of KwaZulu-Natal, South Africa

ABSTRACT

This study examines the influence of entrepreneurship education (communication skills, technical knowledge and innovation) on students' view on self-employment. It is a proposed conceptual model, which was empirically tested. A questionnaire survey was administered to 260 postgraduate students in Universiti Utara Malaysia and both descriptive and regression analysis, as statistical tool, was used to analyse the data and test the hypothesis that students' view is impacted by entrepreneurship education. The results show that entrepreneurship education namely technical knowledge and innovation, influence students' view on self-employment. However, in contrast to prediction, the result shows an insignificant relationship between communication skills and views on self-employment. Based on the results, it is recommended that educators and policymakers should prioritize technical knowledge and innovation to enhance nascent entrepreneurs' performance, which encompasses people of diverse ethnicity as revealed in the study.

Keywords: Communication Skills, Entrepreneurship Education, Innovation, Self-Employment, Technical Knowledge.

INTRODUCTION

The development of human capital is the key agenda towards realizing the vision 2030. Education serves as a medium mover in shaping civilized and competitive society. Knowledge acquired from the university via entrepreneurship education should contribute optimally to the societal values in form of economic growth, employment creation and competitiveness in globally linked markets (Audretsch et al., 2005; Pihkala et al., 2016; Stough, 2016). Therefore, entrepreneurship education (communication skill, technical knowledge and innovation) in Malaysia should be implemented as a strategy to increase the number of skillful human capital and encourage businesses to achieve commercial and industrial community by 2030 (Abidin, 2018; Ahmad & Buchanan, 2015).

The decision to become self-employed hinges on a wide array of factors (Shepherd & Williams, 2015) which include graduates unemployment, inability to get well paid job, job satisfaction, personality traits, independence, parental influence (Viinikainen et al., 2016). Therefore, becoming a nascent entrepreneur is viewed as the panacea (Van Stel, 2005; Fields, 2014). Unemployment has remained a troubling subject globally, more importantly in the developing and under-developed countries of the world (Aboho et al., 2016; Pauw et al., 2008).

Although unemployment rate differs from one country to another, the pursuit to arrest the surge remains a concern for stakeholders. Unemployment arguably has become a threat to social, economic and political development; an effort to curtail the rising tide of unemployment is of global concern (Ajufo, 2013).

Moreover, pursuit of the remedy to issues of unemployment necessitated the need for self-employment, particularly among university graduates (Van Stel, 2005; Meager et al., 2011; Zhou & Xu, 2012; Ahmad & Buchanan, 2015). Audretsch et al. (2005) suggest that entrepreneurship education and the transfer of technology or knowledge from universities should be considered as germane to societal development. Graduate unemployment has remained a global phenomenon flagellating several countries whether developed or emerging (Oguntimehin & Olaniran, 2017; Rae, 2010). Past studies provide evidence on how various stakeholders that include researchers, governments, universities and the public are showing concern on how to reduce unemployment through entrepreneurial firm (Elmuti et al., 2012). According to Singh et al. (2010) self-employment is remarkably perceived, as the nostrum to the challenges facing developing economies globally. Furthermore, Pauw et al. (2008) submit that prolonged period of unemployment has negative consequences; as the unemployed are prone to varied social and psychological challenges compared to their employed counterparts. Similarly, Salami (2013) posits that the unemployed could be a source of menace to the society.

Therefore, an attempt to palliate unemployment among university graduates led to the emergent of entrepreneurship education in the university curricula (Raju et al., 2015). Evidences abound that entrepreneurial education positively influence business start-ups mind-set by graduates that attended entrepreneurship courses (Jones & English, 2004; European Commission, 2012). Consistent with the need for entrepreneurship education, literature indicates that effective and efficient entrepreneurship curriculum (Matlay, 2006) could broaden students' horizon on the need to be self-reliant. Nevertheless, in contrast to the above submissions Oosterbeek et al. (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.

In addition, past studies claim that the proof of successful economic outcomes achieved through entrepreneurship education is still debatable (O'Connor, 2013; Pittaway & Edwards, 2012). On the other hand, theory supports the view, if other fields of knowledge can make substantive impact through education, then entrepreneurship education is pertinent to the development of nascent entrepreneurs; but then, there may be underlying factors inhibiting the expected outcome. Despite the contradictory views on the impact of entrepreneurship education (Nabi et al., 2017), stakehlders' views indicate a positive perception by the extant advocacy for entrepreneurship education especially at the tertiary level, hence this study considers extant scholars' standpoint as revealed in the literature.

REVIEW OF LITERATURE AND HYPOTHESES

Entrepreneurship Education and Graduate Unemployment

Entrepreneurship Education (EE) plays a significant role in cushioning graduate unemployment; this has been established by both theoretical and empirical studies (Agri et al., 2017). Human capital theory support the view that education can stimulate entrepreneurial mindset, this can equally enhance venture creation skills previously acquired via entrepreneurship education (Dickson et al., 2008). In addition, Knowledge spillover theory

underpins the view that knowledge has the capacity to influence self-employment (Audretsch et al., 2005). Moreover, prior studies show that entrepreneurship education is positively related to students' future attitude towards self-employment (Fayolle et al., 2006). Although entrepreneurship education has been discussed extensively in the literature, its influence on self-employment among postgraduate students has not been explicit. Studies that explore the relationships between entrepreneurship education, graduate unemployment and self-employment are minimal. According to Dobni (2014), educational system inherent in innovative culture demands supportive environment; sustainable growth and development will remain elusive without this. In addition, Ahmad (2013) advocates that entrepreneurship education in the developing countries should be unambiguous to be embraced at all levels of educational institutions to possess necessary knowledge and skill for venture creation. Matlay (2008) concludes that entrepreneurship education helps students in the acquisitions of knowledge. However, Elmuti et al. (2012) submit that most universities rarely offer what it entails to become entrepreneurs. They postulate that required skills such as technical skills, management as well as personal entrepreneurial skills can be learned through effective entrepreneurial education.

Consequently, Idogho and Ainabor (2011) maintain that to stem the tide against unemployment and poverty involves promoting entrepreneurship education by all stakeholders, governmental and nongovernmental organizations. For example, Raju et al. (2015) argue that, early exposure to entrepreneurship education had produced eminent entrepreneurs in developed nations like US. They uphold that entrepreneurship education has the capability to broaden and invigorate vision by motivating students' intention towards entrepreneurial mind set. A growing acceptance now exist that entrepreneurship can be taught (Jones & English, 2004; Raju et al. 2015), though researcher postulates that only certain skills can be taught the inborn traits cannot be learned. Subsequently, entrepreneurship education as taught in the universities is to build graduates with the requisite knowledge and skills that will in turn, become practicing entrepreneurs.

Self-Employment

Self-employment is a major determinant and contributor to economic development. It is perceived as a change agent in job creation as well as increasing nation's wealth through economic development (Aboho et al., 2016; Dabale & Masese, 2014; Okeke et al., 2016). Entrepreneurship education was introduced into the Malaysian Higher Institution of learning to support graduates' venture creation (Gafar et al., 2015). Several theories have been employed to verify the view that entrepreneurship education influences self-employment. This includes;- human capital theory, which supports the view that education can be a major preference in making a choice with the mindset that entrepreneurial skill which has been acquired will yield optimally (Martin et al., 2013; Dickson et al., 2008). Knowledge spillover theory also supports the view that knowledge has the capacity to influence self-employment (Audretsch et al., 2005). However, proclivity towards self-employment depends on individual's perspective.

Communication Skills and Self-employment

Active interaction in today's business world necessitates improved knowledge of CS. Effective communication reduces ambiguity; it facilitates positive relationships leading to firm growth. Researcher indicates that *"a successful manager must understand how to manage communication"*. Hence, expertise in communication could have a tremendous influence in developing nascent entrepreneurs. Therefore, to enhance self-employment, a potential entrepreneur must be well-balanced in every skill including CS. To corroborate this, Zhou & Xu (2012) suggest that interpersonal CS should be a part of the curriculum. Furthermore, Mohr and Spekman (1994) assert that CS can contribute to entrepreneurial success especially in partnership venture; as such, entrepreneurs must develop CS to hone good decision making: as this is an integral part in the running of a viable venture and this hinges on the capability to manage information.

Technical Knowledge and Self-Employment

TEK is the preceding knowledge acquired from EE. Acquisition of this knowledge prior to business creation makes a potential entrepreneur more dynamic in the business world (Nwekeaku, 2013). Technical Knowledge (TEK) remains pertinent in any enterprise. Moreover, enhanced understanding of previous education and experience are powerful combinations required in this ever-changing corporate world. Entrepreneurship education demands setting of achievable goals for knowledge and skill in other to strike a balance between theoretical and practical perspective as self-employed (Hynes, 1996; Jones et al., 2017). Jones et al. (2012) posit that entrepreneurship education drives initiative to venture a creation by enlivens entrepreneurial mind-set in students while needed skills and knowledge are being acquired during the teaching process. Zhou and Xu (2012) submit that in 2005, *"Know about Business"* (KAB) was launched in six universities in China to equip student's knowledge and skills 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. Wu and Wu (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 could be because of the exigency in the corporate world;- as revealed by Omerzel and Antoncic (2008) that *"organizations are becoming more knowledge intensive and they are hiring minds more than "hands"*.

Innovation and Self-employment

Innovation is the hub in today's business world, any individual or company that fails to innovate will soon fizzle out (Storen, 2014). Entrepreneurs perceive innovation (IIN) as back up to venture creation, and as such it is fundamental to becoming self-employed and having business success (Baron & Tang, 2011). Evidences subsist from the literature of the relationship between innovation and entrepreneurship education (Dobni, 2014; Ferrari et al., 2009; Galindo & Méndez, 2014; Jiang & Sun, 2015; Zhou & Xu, 2012). In addition, innovation is pertinent for new venture creation (Baron & Tang, 2011) as such, it is indispensable for nascent entrepreneurs to thrive. The question is, how can this innovative spirit be enhanced? Entrepreneurship education is expected to create individuals with innovative capability who will graduate from the

educational system with a vision for venture creation. The above discussion leads to the hypotheses presented below.

H1: Effective communication influences student's view on self-employment.

H2: Technical knowledge influences student's view on self-employment.

H3: Innovation influences student's view on self-employment.

RESEARCH DESIGN

This study adopts quantitative research approach. In selecting an appropriate research design, the guiding principles should be to adopt a method (or methods as the case maybe) that will enhance the objectivity of the research. Quantitative designs focus on establishing a correlation or relationship among variables. A survey can be defined as a systematic process of reviewing, designing, collecting, analyzing and reporting facts in detail. Moreover, quantitative data has some advantages as it enables a researcher to obtain larger sample size within a limited time frame. Furthermore, with the use of this technique, responses can be analyzed statistically, easily and efficiently; (Zikmund et al., 2010) using the computer software such as IBM Statistical Product and Service Solutions. Survey method uses scientific sampling and questionnaire design; this was considered appropriate for this study. Therefore, the data used were obtained from questionnaire survey. Cross-sectional field survey was applied, to obtain the number of data robust enough for the study; and again, to test the model and hypotheses.

Population and Procedure

According to Hair et al. (2010) a research population is made up of data and information to be analyzed. This study examines international postgraduate students in UUM. The number of sample size is determined using Krejcie & Morgan (1970) from the given population. The total population of active postgraduate students in UUM as at the time of collecting the data was 1725. UUM operates satellite campuses in different locations in Malaysia which includes; CITY C, REZKL, EKK and ANG with a total number of 984 postgraduate students. This shows that the total number of postgraduate students resident in UUM main campus is 741, following Krejcie & Morgan (1970), a population of 750 requires a sample size of 254. 260 questionnaires were sent out but a total of 184 were returned out of which 14 were not useable while missing data were replaced with series mean retaining a total of 160 for further analysis. Postgraduate students were chosen randomly as the sample size from; different countries including Jordan, Libya, Malaysia, Nigeria, Pakistan, Saudi and Thailand. Probability sampling was chosen for the study as the sampling frame was available. The aim of this type of sampling is to reduce the sampling error to a minimum level.

Instrumentation

Items in the survey instrument were adopted and modified based on past literatures (Fisher, 1981; Zhou & George, 2001, Jones et al., 2012; Singh et al., 2010). The instrument was divided into two parts with-; the first part divided into four sections; TEK (eight items), CS (five items), IIN (five items) and VSE (five items). The second part consists of demographic characteristics of the respondents. The questionnaire comprised non-dichotomous data of

multiple choice items of five-point Likert-type scale spanning from 1 (Strongly Disagree) to 5 (Strongly Agree).

RESULTS

A descriptive analysis and linear regression analysis through Statistical Product and Service Solutions was used to examine the influence of entrepreneurship education on students' VSE. Table 1 presents the descriptive statistics for the study sample. The VSE have a mean of 14.85 with a minimum of 8.00 and maximum of 20.00. The CS dimension ranges from 10.00 to 20.00 with a mean of 16.61. INN has a mean of 19.89 ranging from 14.00 to 25.00. TEK 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 within the acceptable range of -0.5 to 0.5 and -1 to 1 respectively (Foster et al., 1998).

The mean for VSE ranges from 3.63 to 3.88 as shown in Table 2. 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 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 1
DESCRIPTIVE STATISTICS OF STUDY SAMPLE (N=160)

Variables	Min.	Max.	Mean	Std. Deviation	Skewness	Kurtosis
VSE	8	20	14.85	2.58	-0.47	0.63
ECS	10	20	16.61	1.88	-0.37	0.76
TEK	7	15	11.56	1.53	-0.53	0.55
INN	14	25	19.89	2.32	-0.18	0.01

Table 2
DESCRIPTIVE STATISTICS OF VSE (N=160)

	Minimum	Maximum	Mean	Std. Dev.
I have preference for self-employment than paid employment (VSE1).	1	5	3.69	0.82
I have motivation from within to start my own business (VSE2).	2	5	3.88	0.74
I have been equipped with needed entrepreneurial skill to become successful entrepreneur (VSE3).	1	5	3.63	0.86
Self-employment is now my priority because of the knowledge gained in entrepreneurship education program (VSE4).	2	5	3.87	0.69

Four items were factored into the ECS dimension as presented in Table 3. 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 3 DESCRIPTIVE STATISTICS OF COMMUNICATION SKILL (N=160)				
	Minimum	**Maximum**	**Mean**	**Std. Dev.**
Communication is the most important tool for getting things done (ECS1).	1	5	4.22	0.7
EE empowers a person's communication skill to be effective and efficient as an entrepreneur (ECS2).	3	5	4.11	0.6
Effective communication skill can enhance self-image (ECS4).	2	5	4.14	0.58
Communication link and guidance from real life entrepreneurs can act as catalyst for business growth (ECS5).	2	5	4.14	0.58

Table 4 shows the result for TEK acquired through EE. 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 skill"* (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 skill"* (TEK3). This result indicates that the entrepreneurial curricula and mode of teaching are important.

Table 4 DESCRIPTIVE STATISTICS OF TEK (N=160)				
	Minimum	**Maximum**	**Mean**	**Std. Dev.**
Type of entrepreneurship course offered had influence on development of entrepreneurial skill (TEK1).	2	5	3.9	0.66
Acquiring adequate entrepreneurship knowledge depends on types of teaching methods employed during entrepreneurship course (TEK2).	2	5	3.79	0.65
In my opinion, entrepreneurship education plays visible roles in developing entrepreneurial skill (TEK3).	1	5	3.67	0.81

Table 5 shows the items for measuring the INN 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 *"EE 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 5
DESCRIPTIVE STATISTICS OF INNOVATION (N=160)

	Minimum	Maximum	Mean	Std. Dev.
Creative university environment inspires me to develop ideas for new business (INN1).	2	5	4	0.65
Mentoring is an essential ingredient required before innovative ideas can evolve (INN2).	2	5	3.92	0.67
Learning through observation builds innovative spirit; therefore, team work should be encouraged (INN3).	2	5	3.98	0.7
Entrepreneurial start-up and continual success depends on possessing personal innovative ideas (INN4).	3	5	4.04	0.55
EE has a tremendous role to play in developing innovative aptitude (INN5).	2	5	3.96	0.62

Multicollinearity test was conducted through the Variance Inflation Factors (VIF) shown in Table 6, and the result shows that the highest VIF is 1.679. The issue of multicollinearity is therefore not expected to affect the study. To examine whether factor analysis should be conducted, Bartlett test of sphericity was conducted. The result 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. Further, the Kaiser-Meyer-Olkin (KMO) test was conducted and showed a value of 0.820. The value of 0.820 is greater than 0.5 and indicates that the matrix variables can be factored. This result is shown in Table 7. The KMO test is also used to examine the presence of correlations among the items (Hair et al., 2010).

Table 6
MULTICOLLINEARITY TEST

Model	Collinearity Statistics	
	Tolerance	VIF
ECS	0.7	1.429
TEK	0.762	1.312
INN	0.595	1.679

Table 7
RESULT OF KAISER-MEYER-OLKIN TEST AND BARTLETT TEST OF SPHERICITY

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

Reliability Test

The following are the four proposed dimensions for self-employment as used in the study: VSE, CS, INN, and TEK acquired from EE. Five items were used for measuring VSE, five for ECS, five for INN, and eight for TEK acquired from EE. To increase the reliability coefficient VSE5 was dropped from the VSE dimension, ECS3 was dropped from ECS dimension and TEK4 to TEK8 were dropped from the TEK acquired from entrepreneurship education dimension. The result shows improvement in the revised Cronbach's alphas shown in Table 8. These items were dropped because they showed low item-total correlations compared to others in their group. Suggest that reliability is regarded poor only when the Cronbach alpha

coefficient is less than 0.6. The coefficient alpha values as calculated for the variables are greater than 0.6 and therefore fall within the acceptable range.

			Initial reliability		Revised reliability	
Table 8 **RELIABILITY ANALYSIS**						
S/No.	**Items**	**Code**	**Item total correlation**	**Cronbach alpha**	**Item total correlation**	**Cronbach alpha**
	VSE (5 items)					
1	I have preference for self-employment than paid employment.	VSE1	0.616	0.752	665	0.788
2	I have motivation from within to start my own business.	VSE2	0.681		721	
3	I have been equipped with needed entrepreneurial skills to become successful entrepreneur.	VSE3	0.62		658	
4	Self-employment is now my first priority because of the knowledge gained in entrepreneurship education program.	VSE4	0.418		367	
5	In my view, a self-employed individual without innovation and creativity may not become a successful entrepreneur.	VSE5	0.293		Dropped	
	CS (5 items)					
1	Communication is the most important tool for getting things done.	ECS1	0.449	0.617	0.536	0.747
2	EE empowers a person's CS to be effective and efficient as an entrepreneur.	ECS2	0.466		0.465	
3	Actual proficiency in English serves as a predictor for entrepreneurial success.	ECS3	0.119		Dropped	
4	Effective CS can enhance self-image.	ECS4	0.542		0.61	
5	Communication link and guidance from real life entrepreneurs can act as catalyst for business growth.	ECS5	0.468		0.57	
	Innovation (5 items)					
1	Creative university environment inspires me to develop ideas for new business.	INN1	0.571	0.773	0.571	0.773
2	Mentoring is an essential ingredient required before innovative ideas can evolve.	1NN2	0.574		0.574	
3	Learning through observation builds innovative spirit; therefore, team work should be encouraged.	INN3	0.525		0.525	
4	Entrepreneurial start-up and continual success depends on possessing personal innovative ideas.	INN4	0.447		0.447	
5	EE has a tremendous role to play in developing innovative aptitude.	INN5	0.613		0.613	
	TEK (8 items)					
1	Type of entrepreneurship course offered had influence on development of entrepreneurial skills.	TEK1	0.365	0.636	0.533	0.645

2	Acquiring adequate entrepreneurship knowledge depends on types of teaching methods employed during entrepreneurship course.	TEK2	0.387		0.445	
3	In my opinion, entrepreneurship education plays visible roles in developing entrepreneurial skills.	TEK3	0.37		0.407	
4	Paid employment is not as stressful as self-employment.	TEK4	0.211		Dropped	
5	Acquirement of entrepreneurship knowledge depends on the institution's curriculum and infrastructure.	TEK5	0.328		Dropped	
6	Knowledge and expertise are unquestionable attributes for entrepreneurial success.	TEK6	0.23		Dropped	
7	EE helps students acquire theoretical knowledge without practical experience on how to be self-employed.	TEK7	0.364		Dropped	
8	Technology has a significant impact on education but new technology skills must be developed to foster entrepreneurial skills.	TEK8	0.355		Dropped	

The results of the Varimax Rotated Factor Loading and Cronbach's alpha coefficients are shown in Table 9. Factor 1 loads four items labeled as VSE, while Factor 2 loads four items for ECS. Factor 3 is related to INNOVATION with five items and Factor 4 consists of three items for TEK acquired from EE. These four factors together explain 59.94% of the variability of the self-employment dimension. Factor 1 on views of self-employment accounts for 16.66% and Factor 2 on ECS accounts for 15.79% of the variation. The third factor is INN that accounts for 15.17% of the variance while the fourth factor TEK acquired through entrepreneurship education accounts for 12.32% of the variance. The eigenvalue for the four factors are more than 1, indicating that they are significant (Hair et al., 2010).

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. The Pearson correlation matrix is presented in Table 10. The result indicates that there is a significant positive correlation between VSE and effective CS gained through entrepreneurship education at 5% level ($r=0.198$). The relationship between VSE and INN is significant at 1% with a correlation ($r=0.349$). VSE is significantly positively correlated with TEK acquired through entrepreneurship education at 1% ($r=0.441$). The highest correlation ($r=0.545$) is between effective CS and INN, there is therefore no issue of multicollinearity.

Table 9 MODEL QUALITY CRITERIA-VARIMAX ROTATED FACTOR LOADING				
	Component Rotated Factor Loading			
Self-Employment Items	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 4**
I have preference for self-employment than paid employment (VSE1).	0.897			
I have motivation from within to start my own business (VSE2).	0.833			
I have been equipped with needed entrepreneurial skills to become successful entrepreneur (VSE3).	0.803			

Self-employment is now my priority because of the knowledge gained in entrepreneurship education program (VSE4).	0.467			
Effective CS can enhance self-image (ECS4).		0.802		
Communication link and guidance from real life entrepreneurs can act as catalyst for business growth (ECS5).		0.767		
Communication is the most important tool for getting things done (ECS1).		0.705		
EE empowers a person's CS to be effective and efficient as an entrepreneur (ECS2).		0.595		
Type of entrepreneurship course offered had influence on development of entrepreneurial skills (TEK1).			0.849	
Acquiring adequate entrepreneurship knowledge depends on types of teaching methods employed during entrepreneurship course (TEK2).			0.722	
In my opinion, entrepreneurship education plays visible roles in developing entrepreneurial skills (TEK3).			0.42	
Mentoring is an essential ingredient required before innovative ideas can evolve (INN2).				0.772
Creative university environment inspires me to develop ideas for new business (INN1).				0.76
EE has a tremendous role to play in developing innovative aptitude (INN5).				0.683
Learning through observation builds innovative spirit; therefore, team work should be encouraged (INN3).				0.517
Entrepreneurial start-up and continual success depends on possessing personal innovative ideas (INN4).				0.488
Eigen value	2.666	2.527	2.427	1.971
Percentage variance explained	16.661	15.792	15.17	12.316
Cumulative percentage	16.661	32.453	47.623	59.94
Cronbach's alpha coefficients	0.778	0.747	0.773	0.645

Table 10 PEARSON CORRELATION MATRIX				
	VSE	ECS	TEK	INN
VSE	1			
ECS	0.198*	1		
	0.012			
TEK	0.441**	0.316**	1	
	0	0		
INN	0.349**	0.545**	0.484**	1
	0	0	0	

*, **=Correlation is significant at the 0.05 and 0.01 levels respectively (2-tailed).

Main Regression Results

Table 11 reports the regression results for students' VSE. The regression result is statistically significant with an F-value of 14.565 and Adjusted R^2 of 0.204 which indicates that 20.40% of the variation in students' VSE is explained by the variations of the predictor variables.

The result suggests that TEK and INNOVATION are determinants of students' VSE in the study sample. Both variables are significant at the 1% and 5% levels respectively. This supports hypotheses 2 and 3 that TEK influences students' VSE and INN influences students' VSE respectively. These results are consistent with prior empirical studies. For example, entrepreneurship education has the capability to impart needed knowledge and skills on graduates to be able to become self-employed with sustainable ventures (Matlay & Carey, 2007; Matlay, 2008).

This finding is also consistent with earlier researchers who report that INNOVATION has impact on self-employment perspective (Hamidi et al., 2008; Middleton & Lundqvist, 2010; Nwekeaku, 2013; Raju et al., 2015). Further, Galindo and Méndez (2014) document that entrepreneurship and innovation is positively related in terms of enhancing economic growth. This also agrees with (Hamidi et al., 2008) that innovation can be viewed as the forerunner of entrepreneurial process, and is consistent with Dobni (2014) who reveals that educational system moored on innovative culture is germane.

The significance of TEK suggests that universities should emphasize on acquisition of TEK by students in the design of their entrepreneurship education curriculum. Thus, TEK influences the desire of the student to start a business venture after graduation. It is the knowledge acquired that will create understanding on how to identify opportunities that are available. This result shows that 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). It is noted that CS appear not to be significant in explaining students' VSE for our study sample. This shows lack of support for *hypothesis 1*. Generally, issue of communication in entrepreneurship domain remains trivial rather than fundamental. The reason for this result could be drawn from the submission of Gibb (2000) that ECS is important but not fully related to the idea of enterprising young person. Further, the lack of support for *hypothesis 1* could be attributed to the fact that the study sample consists of international postgraduate students with different lingua franca.

Table 11 REGRESSION RESULTS FOR VSE					
Variables	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t-stat**	**p-value**
(Constant)	4.163**	1.939		2.147	0.033
ECS	-0.02	0.117	-0.015	-0.172	0.864
TEK	0.603***	0.137	0.357	4.405	0
INN	0.204**	0.102	0.184	2.004	0.047
N		160			
R^2		0.219			
Adjusted R^2		0.204			
F-value		14.565***			

***, **=Significant at 1% and 5% level respectively.

CONCLUSION

This paper has examined how entrepreneurship education influences students' VSE. The study used data from 160 international postgraduate students from Othman Yeop Abdullah Graduate School of Business, UUM to examine the interrelationships between CS, TEK, INNOVATION and students' VSE. The results found a strong positive and significant relationship between TEK and students' VSE, as well as a strong positive and significant relationship between INNOVATION and students' VSE, but no significant relationship between CS and students' VSE. This is in support of such programmes organized at the university level to develop supportive entrepreneurship education for the students. Factors that can influence student's view on self-employment, which includes TEK and innovation, should be intensively focused in EE. It demonstrates that policy makers and educators should prioritize TEK and innovation for nascent entrepreneurs to perform optimally. The study equally finds support for the use of the knowledge spillover theory of entrepreneurship. However, the study reveals the need for further clarification on the impact of CS on self-employment.

LIMITATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

The study is not without some limitations, which must be pointed out. Firstly, it is limited to postgraduate students in Othman Yeop Abdullah Graduate School of Business, in UUM. Though it was conducted in a single university, the study incorporates students of varied backgrounds. Based on the above limitations the following recommendations are important and relevant. Future study could involve more postgraduate students for a wider sample size. This could be to compare entrepreneurship students in business schools with those from other schools. Furthermore, the number of variables could be increased for a better assessment of the impact of entrepreneurship education on self-employment. Future research could be country or region specific, thereby focusing on the entire postgraduate students from either a country or a geographical setting. It could be as well being extended to capture the alumni from Othman Yeop Abdullah Graduate School of Business, UUM to assess the impact of entrepreneurship education on self-employment after graduation.

REFERENCES

Abidin, Z.M.A. (2018). Driving green economy for Malaysia through green technology and green culture. *Journal of the Society of Automotive Engineers Malaysia, 2*(1), 2-4.

Aboho, R., Aleru, G.E., & Danladi, S.A. (2016). Impact of entrepreneurship education on entrepreneurial inclination amongst undergraduate students of two Nigerian universities, *Knowledge Review, 35*(1), 1-6.

Agri, E.M., Nanwul, D.A., & Acha, O.F. (2017). Promoting entrepreneurship for poverty reduction and sustainable development in Nigeria. *Journal of Business Management and Economics, 8*(1), 38-46.

Ahmad, S.Z. (2013). The need for inclusion of entrepreneurship education in Malaysia lower and higher learning institutions. *Education+Training, 55*(2), 191-203.

Ahmad, S.Z., & Buchanan, R.F. (2015). Entrepreneurship education in Malaysian universities. *Tertiary Education and Management, 21*(4), 349-366.

Ajufo, B.I. (2013). Challenges of youth unemployment in Nigeria: Effective career guidance as a panacea. *African Research Review, 7*(1), 307-321.

Audretsch, D.B., Keilbach, M., & Lehmann, E.E. (2005). The knowledge spillover theory of entrepreneurship and technological diffusion. *Advances in the Study of Entrepreneurship, Innovation and Economic Growth, 16*, 69-91.

Baron, R.A., & Tang, J. (2011). The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamism. *Journal of Business Venturing, 26*(1), 49-60.

Dabale, W.P., & Masese, T. (2014). The influence of entrepreneurship education on beliefs, attitudes and intentions: A cross-sectional study of Africa university graduates. *European Journal of Business and Social Sciences, 3*(9), 1-13.

Dickson, P.H., Solomon, G.T., & Weaver, K.M. (2008). Entrepreneurial selection and success: Does education matter? *Journal of Small Business and Enterprise Development, 15*(2), 239-258.

Dobni, C.B. (2014). Achieving growth through INN : The role of arts education in supporting economic Sustainability. *Strategian Applied Research*.

Elmuti, D., Khoury, G., & Omran, O. (2012), Does entrepreneurship education have a role in developing entrepreneurial skills and ventures' effectiveness ? *Journal of Entrepreneurship Education, 15*, 83-99.

European Commission. (2012). Effects and impact of entrepreneurship programmes in higher education.

Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training*, *30*(9), 701-720.

Ferrari, A., Cachia, R., & Punie, Y. (2009). Innovation and creativity in education and training in the EU member states: Fostering creative learning and supporting innovative teaching, *Innovation and Creativity in E&T in the EU Member States (ICEAC)*. Luxembourg.

Fields, G.S. (2014). *Self-employment and poverty in developing countries*. IZA World of Labor.

Fisher, J.C. (1981). *On TESOL '80. Building bridges: Research and practice in teaching English as a second language*. Washington, DC.

Gafar, M., Yusoff, W.F.W., Kasim, R., & Martin, D. (2015). Attitude to business reality, perceived value creation and subjective norms: How they impact on students of higher learning institutions' self-employment intentions in Malaysia. *Mediterranean Journal of Social Sciences*, *6*(5), 186-196.

Galindo, M.Á., & Méndez, M.T. (2014). Entrepreneurship, economic growth, and INN: Are feedback effects at work? *Journal of Business Research, 67*(5), 825-829.

Gibb, A.A. (2000). SME Policy, academic research and the growth of ignorance, mythical concepts, myths, assumptions, rituals and confusions. *International Small Business Journal: Researching Entrepreneurship, 18*(3), 13-35.

Hair, J.F., Black, B., Babin, B., Anderson, R.E., & Tatham R.L. (2010). *Multivariate data analysis, 7th edition*. Upper Saddle River, NJ: Prentice Hall

Hamidi, D.Y., Wennberg, K., & Berglund, H. (2008). Creativity in EE. *Journal of Small Business and Enterprise Development, 15*(2), 304-320.

Hynes, B. (1996). entrepreneurship education and training-introducing entrepreneurship into non-business disciplines. *Journal of European Industrial Training, 20*, 10-17.

Idogho, P.O., & Ainabor, A.E. (2011). Entrepreneurship education and small-scale business management skill development among students of Auchi. *International Journal of Business and Management, 6*(3), 284-288.

Jiang, X., & Sun, Y. (2015). Study on constructing an education platform for innovation and entrepreneurship of university student. *Research Journal of Applied Sciences, Engineering and Technology, 9*(10), 824-829.

Jones, C., & English, J. (2004). A contemporary approach to entrepreneurship education. *Education+Training, 46*(8/9), 416-423.

Jones, C., Matlay, H., & Maritz, A. (2012). Enterprise education: For all, or just some? *Education+Training, 54*(8/9), 813-824.

Jones, P., Pickernell, D., Fisher, R., & Netana, C. (2017). A tale of two universities: Graduates perceived value of entrepreneurship education. *Education+Training, 59*(7/8), 689-705.

Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(1), 607-610.

Martin, B.C., Mcnally, J.J., & Kay, M.J. (2013). Examining the formation of human capital in entrepreneurship : A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing, 28*(2), 211-224.

Matlay, H. (2006). Researching entrepreneurship and education Part 2: What is entrepreneurship education and does it matter? *Education+Training, 48*(8/9), 704-718.

Matlay, H. (2008). The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of Small Business and Enterprise Development*, *15*(2), 382-396.

Matlay, H., & Carey, C. (2007). Entrepreneurship education in the UK: A longitudinal perspective. *Journal of Small Business and Enterprise Development, 14*(2), 252-263.

Meager, N., Martin, R., & Carta, E. (2011). Skills for self-employment.

Middleton, K.W., & Lundqvist, M.A. (2010). Promises of societal entreprneurship: Sweden and beyond. *Journal of Enterprising Communities: People and Places in the Global Economy, 4*(1), 24-36.

Mohr, J.J., & Spekman, R.E. (1994). Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Management Journal, 15*(2), 135-152.

Nabi, G., Fayolle, A., Lyon, E.M., Krueger, N., & Walmsley, A. (2017) The impact of entrepreneurship education in higher education : A systematic review and research agenda. *Academy of Management Learning & Education*, *16*(2), 277-299.

Nwekeaku, C. (2013). Entrepreneurship education and challenges to Nigerian Universities. *Journal of education and practice, 4*(3), 51-56.

O'Connor, O. (2013). A conceptual framework for entrepreneurship education policy: Meeting government and economic purposes. *Journal of Business Venturing,* 546-563.

Oguntimehin, A.Y., & Olaniran, O.E. (2017). The relationship between entrepreneurship education and students' entrepreneurial intentions in Ogun state-owned universities, Nigeria. *European Centre for Research Training and Development, 5*(3), 9-20.

Okeke, M., Okonkwo, G., & Oboreh, J. (2016). Entrepreneurship education as a catalyst for entrepreneurial inclination in selected universities in the South-East Zone. *Arabian Journal of Business and Management Review, 5*(11), 13-22.

Omerzel, D.G., & Antoncic, B. (2008). Critical entrepreneur knowledge dimensions for the SME performance. *Industrial Management & Data Systems, 108*(9), 1182-1199.

Oosterbeek, H., van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review, 54*(3), 442-454.

Pauw, K., Oosthuizen, M., & van der Westhuizen, C. (2008). Graduate unemployment in the face of skills shortages: A labour market paradox1. *Development Policy Research Unit*, 1-33.

Pihkala, T., Ruskovaara, E., & Hytti, U. (2016). *Global university entrepreneurial spirit students' survey.* National report 2016 Finland.

Pittaway, L., & Edwards, C. (2012). Assessment: Examining practice in entrepreneurship education. *Education+Training, 47*(8/9), 778-800.

Rae, D. (2010). Universities and enterprise education: Responding to the challenges of the new era. *Journal of Small Business and Enterprise Development, 17*(4), 591-606.

Raju, S., Kumar, S., & Ramgopal, C. (2015). Entrepreneurship and innovation: A study on factors affecting engineering graduates towards entrepreneurship and innovation. *Journal of Engineering Education Transformation*, 170-174.

Salami, C.G.E. (2013). Youth unemployment in Nigeria : A time for creative intervention. *International Journal of Business and Marketing Management, 1*(2), 18-26.

Shepherd, D.A., & Williams, T.A. (2015). Thinking about entrepreneurial decision making: Review and research agenda. *Journal of Management, 41*(1), 11-46.

Singh, G., Saghafi, M., Ehrlich, S., & De Noble, A. (2010). Perceptions of self-employment among mid-career executives in the people's republic of China. *Journal of Career Assessment, 18*(4), 393-408.

Van Stel, A. (2005). Entrepreneurship and economic growth some empirical studies (Doctoral thesis).

Storen, L.A. (2014). Entrepreneurship in higher education: Impacts on graduates' entrepreneurial intentions, activity and learning outcome. *Education+Training, 56*(8/9), 697-715.

Stough, R.R. (2016). Entrepreneurship and regional economic development: Some reflections. *Journal of Regional Research*, *36*, 129-150.

Viinikainen, J., Heineck, G., Böckerman, P., Hintsanen, M., Raitakari, O., & Pehkonen, J. (2016). *Born entrepreneur? Adolescents' personality characteristics and self-employment in adulthood*. IZA Discussion Papers.

Wu, S., & Wu, L. (2008). The impact of higher education on entrepreneurial intentions of university students in China. *Journal of small business and enterprise development, 15*(4), 752-774.

Zhou, M., & Xu, H. (2012). A Review of entrepreneurship education for college students in China. *Administrative Sciences, 2*(4), 82-98.

Zhou, J., & George, J.M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice, *Academy of Management Journal, 44*(4), 682-696.

Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). *Business research methods: Singapore*. South-Western Cengage Learning.