

Entrepreneurship Education, Creativity and Entrepreneurial Career Option among Polytechnic Students in Nigeria

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Abstract: Entrepreneurial career is the ultimate career option (ECO) for graduating students. An individual's decision to become an entrepreneur is the most fundamental aspect of entrepreneurship and signifies an individual's decision to engage entrepreneurship as a career option. However, it has been indicated that entrepreneurship education (EE) imparted to students and the youth in most of the developing countries is inadequate to prepare them for ECO and Nigeria is not an exception. Hence, non-commitment to ECO among Nigerian youth resulted in the emergence of unemployment and poverty in Nigeria which consequentially leads social crimes. The main objective of this paper is to explore the role of entrepreneurship education as well as to establish a relationship between EE, creativity, and ECO as variables. The empirical findings of this paper established a significant relationship between independent and dependent variables. It also hopes to contribute in relation to the growth of ECO in Nigeria. In methodology, the paper utilized SPSS version 23 in data analysis. More so, using Human Capital Theory, the relationship between the study variables would explore the advantages of EE, creativity and ECO as a mode of approach towards the reduction of unemployment in Nigeria. Similarly, finding implies that polytechnic graduates can apply their knowledge of know-what, know-how, know-why, and creativity to explore ECO. This paper may highly contribute to decisions and policymaking of ministries of education, regulatory agencies, and Nigerian polytechnics.

Keywords: Creativity; Entrepreneurship career option; Entrepreneurship education components; Nigeria.

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I. Introduction

Entrepreneurial career option (ECO) has globally being applauded as the viable career option for youth and graduates (Ejiogu & Nwajiuba, 2012; Fatoki, 2014). This is due to its effectiveness in promoting economic growth, provision of employment and reducing extant poverty among the populace (Sheriff & Mufatto, 2015). Worldwide, the paucity of formal employment opportunities has led educational institutions and policymakers to introduce entrepreneurial courses and programmes with a view to creating awareness and changing the mindsets of students to take up careers in entrepreneurship instead of waiting to be employed by other individuals or organisations for a pay (Adekiya & Ibrahim, 2016). ECO is an attempt by individuals to choose to start own business rather than take up paid employment as a career path option (Ogbonna, 2015; Yarima & Hashim, 2016).

The likes of Fatoki (2014) considered ECO as an outcome of the interplay of psychological, personal, and environmental factors. An individual's attitudes to entrepreneurship to a great extent explains his/her entrepreneurial career decisions (Mahmoud, Muharam, & Mas'ud, 2015). Also, motives determine what propels people to act in a particular way (Keh, Foo, & Lim, 2002). Therefore, an individual's entrepreneurial motivations determine to a greater extent his/her decision to choose between self-employment and working as a wage employee (Ahmad & Ibrahim, 2016). Similarly, an individual's propensity to take risks determines his/her entrepreneurial decisions (Solevik, Westhead, Matlay, & Parsyak, 2013). Other scholars argued that ECO is a function of an individual's career preferences and self-efficacy position (Yarima & Hashim, 2016). In this study, ECO is considered as a function of entrepreneurial attitudes, entrepreneurial risk propensity, entrepreneurial motivation, and individual's self-efficacy position. Scholars such as Dubini (1988) posited that EE remains an ultimate and significant pillar towards the development of ECO as it is a root of selecting what the individual's future should look like. This collaborates with the study of Fatoki (2014) that EE is a major determinant of ECO towards the creation of awareness among students of HEIs.

Entrepreneurship education (EE) aimed at creating awareness among students about entrepreneurship as a crucial career choice option as well as changing their attitudes and intentions positively (Israel & Johnmark, 2014). EE

aimed at stimulating students to choose and stick to entrepreneurial careers after graduation. The basic objective of EE is to equip participants with theoretical knowledge of entrepreneurship (know-what), impart networking skills (know-who), and justify the attitude and motivation for entrepreneurial action (know-why) (Asghar, Hakkarainen & Nada, 2016; Hussain & Hashim, 2015). With these lofty goals, EE and training were introduced in Nigerian higher education institutions so as to impart knowledge and skills of entrepreneurship to students. This approach increased the students' technical innovation and creativeness for further learning (National Board for Technical Education (NBTE), 2004). Similarly, EE is aimed at developing an entrepreneurial orientation of the students, and promote innovation and creativeness through the basic components of knowing what, who, and why competencies with a view to choosing entrepreneurship as a career option. Meanwhile, EE has components that include: know-what, know-who, and know-why competencies (Hussain & Hashim, 2015; Johannisson, 1991; Othman & Nasrudin, 2016). In addition to EE competencies, creativity dispositions of individuals enabling them to create new products and services through alteration, transformation, or redesigning an existing product into a new form or discovering other uses of the same product (Okpara, 2007).

Moreover, creativity is not only seen as the power to produce new, innovative ideas, but it is also regarded as the ability to create work that is different and appropriate (Okpara, 2007; Sternberg & Lubart, 1999). In essence, creativity implies an attribute that pays attention to issues such as self-esteem, the locus of control, the impact of internal and outside influences on the consequences of actions, inflexibility, and self-centredness. Besides, a creative individual is the product of particular patterns which form the characteristics of creative persons (Guilford, 1950). Research as well indicates that creative people are exposed to new experiences and that divergent thinking leads to novel and useful thoughts (e.g., Amabile, 1996; Berglund & Wennberg, 2006). Similarly, creativity is appropriate to one's way of thinking, his life inspirations and approach to life (Berglund & Wennberg, 2006; Sternberg & O'Hara, 1999). Creativity was also being linked to the genius in science, business, and art, and a number of persons have achieved dauntless positions through their creative philosophies, discoveries, practices and products. Creativity is, consequently, a condition which is determined and practised within the context that the person's desires (Puccio, 1991; Eysenck, 2008).

II. Problem Statement

Nigeria is the most populated country in Africa with a projection of 186,988,000 people with abundant human and material resources (United Nations (UN, 2015). Of this number, 60 percent are youths under the age of 24 years. In addition, the country is ranked the 40th among strong economies of the world with a desire to be a part of the 20 most impacted economies by the year 2020 (International Labor Organization (ILO, 2011). Likewise, Nigeria is naturally endowed with favourable climatic conditions suitable to the growth of agriculture. Notwithstanding, higher education institutions (HEIs) in Nigeria produces an average of 500,000 by both universities, polytechnics, and colleges of education annually. In addition, about 71,351 Nigerian students studies abroad with an estimated 4,943 students in Malaysia alone (UIS UNESCO, 2017). However, National Bureau of Statistics (NBS, 2012) and Odey and Okoye (2014) reports that only an estimated 10 percent of these graduates were employed annually by both public and private sector organisations. Consequently, Nigerian polytechnic graduates can exploit such resources to start their own businesses thereby engaging in ECO.

Nigerian governments in the past used several policy initiatives to tackle the problem of graduate and youth unemployment, culminating to the recent Olusegun Obasanjo's privatization programme, Umaru Musa Yar Adua's 7-point agenda, and Muhammadu Buhari's N-power and removal of subsidy on petroleum products (Ajayi, 2015). Similarly, the Nigerian government made EE programmes compulsory for HEIs with a view to changing the mind-sets of students towards entrepreneurship as their desired career option. This is in line with the conviction that the polytechnic graduates and youths that were exposed to EE have a lot of opportunities if they could explore their creative potentials in the entrepreneurial scene as their career option (Fatoki, 2010). Despite government initiatives and introduction of EE programmes, graduates of HEIs remain adamant to taking up ECO. Rather, the unemployed graduates and youth involve themselves in crimes such as armed robbery, oil pipe vandalisation, religious insurgency, and kidnappings etc., as a means of earning a livelihood (Adawo & Atan, 2013; Akinyemi, 2013; Ajayi, 2015).

Ideally, knowledge of know-what component requires individuals with the desired competencies to impart, and availability of qualified personnel and facilities (Ismail & Ahmed, 2013; Rae & Woodier-Harris, 2013, Sondari, 2014). However, previous literature suggests that the delivery of know-what component to students in Nigeria is hindered by the accessibility of trained entrepreneurship lecturers, ineffective curriculum, and general lack of funding of EE programmes (Agbonlahor, 2016; Nwekeaku, 2013; Olorundare & Kayode, 2014). Similarly, know-who component refers to the ability to establish networks and social capabilities to interconnect and collaborate with entrepreneurial experts in the context of business creation and develop social networks (Johannisson, 1991; Souitaris, Zerbinati, & Al-Laham, 2007). Unfortunately, this is constrained by general lack of information from significant entrepreneurial role models resulting to the absence of positive entrepreneurial mindsets of students about ECO (Aatio & Wang, 2015). Furthermore, knowledge of know-why

(attitudes and motivation for entrepreneurship) presupposes that an individual must derive personal satisfaction for creating and running an owned business enterprise (Fayolle & Gailly, 2008; Johannisson, 1991). This knowledge is believed to be inborn but can also be learned and influenced by the environment (William-Middleton & Donnellon, 2014). However, students' learning from the experiences of practicing Nigerian entrepreneurs, as well as failure to instill entrepreneurial spirit lead to their fear and lack of interest in self-employment through ECO. In addition, creativity is an individual's attribute that enables one to create ideas that are new and appropriate (Amabile, 1996; Okpara, 2007). GEM (1999) reports that when individuals with the needed skills and training result in entrepreneurship by turning perceived opportunity into a flourishing business venture. Okoye and Eze (2010) posit that youth and graduates do not live up to their creative potentials.

Notwithstanding, World Bank global ranking reports that Nigerian youth are creative and their creativity potentials can be exploited as a veritable tool for enhancing ECO among youth graduates through all the components of EE and ECO (World Bank-IFC, 2013). This is in line with the views of Muhammad, Aliyu, and Ahmed (2015) that, Nigerians are one of the most creative and talented people in black Africa. As an attribute that encourages the generation of ideas that are novel and useful, creativity can be used to enable students to be innovative, thereby using their creative potentials to recognize opportunities for doing businesses and create ventures to exploit such opportunities (Huzzard, 2008; Okpara, 2014; Oldham & Cummings, 1996). However, the inability of students of polytechnics in Nigeria to choose entrepreneurial career option is an issue of serious concern with both theoretical and practical justification. This requires empirical investigation considering the role played by entrepreneurship towards employment generation, wealth creation, and poverty alleviation.

III. Research Questions

The study is aimed at providing an answer to the following research questions:

1. Is there any relationship between components of entrepreneurship education (EE) and entrepreneurial career option (ECO) among polytechnic students in Nigeria?
2. Is there any relationship between creativity and entrepreneurial career option (ECO) among polytechnic students in Nigeria?

IV. Objectives of the Study

The study aimed at investigating the relationship between EE, creativity and ECO in Nigeria.

1. To examine the relationships between components of entrepreneurship education (EE) and entrepreneurial career option (ECO) among polytechnic students in Nigeria.
2. To examine the relationships between creativity and entrepreneurial career option (ECO) in Nigeria.

V. Literature Review

5.1 Entrepreneurial Career Option

ECO is a conscious and planned resolve to choose to start one's own business venture as a career path (Yarima & Hashim, 2016). ECO is an individual's deliberate decision and total commitment to embrace entrepreneurship as a career option. Previous studies have shown that the decision to become an entrepreneur can be regarded as the choice of a specific career among other available career options (Douglas & Shepherd, 2002). Entrepreneurial career has been described as the perfect career option for youth and graduate students (Buang, 2011; Fatoki, 2014). Moreover, entrepreneurial career offers significant opportunity for individuals to achieve financial leverage and economic well-being, and have shown alikelihood of supporting an economy through job creation, creative and innovative activities, and subsequently economic growth (Basu & Virick, 2008; Maina, 2014; Kelley, Brush, & Greene, 2012). Scholars have posited that career in entrepreneurship is fast becoming a relevant option that has the ability to withstand the complexities of the present labour market, increased competitiveness, and the challenges of globalization (Aminu & Mahmud, 2015; Perez-Lopez et al., 2016). ECO is envisaged by an individual intention to start a business rather than to work for others. Consequently, opportunities that need to be exploited are identified and resource is deployed to exploit the opportunity by creating a new venture (Shook, Priem, & McGee, 2003). Hence, a good knowledge of entrepreneurship of entrepreneurship is required to be able to identify business opportunities and explore individual's creativity potentials to create a new business (McStay, 2008).

5.2 Entrepreneurship Education

EE dates back to 1938, when Shigeru Fijii, introduced and in fact, taught EE at Kobe University in Japan (Alberti, Sciascia, & Poli, 2004). Earlier on, Katz (2003) asserted that since the introduction of the first entrepreneurship class at Harvard's Business School, in the United States in 1947, the number of American students taking entrepreneurship or small business courses has increased dramatically. He further argues that this 20th century's history of EE, makes the economists turned to America for inspiration. Additionally, EE and

training are aimed at building skills and knowledge in readiness for starting a new business venture (GEM 2008). EE is viewed as the process of providing individuals with the capability to recognise commercial opportunities and the knowledge and skills and attitudes to act on them (Acs & Storey, 2004). Similarly, it is seen as the process of bringing together creative and innovative ideas and linking them with management and organizational skills in order to combine people, money, and resources to satisfy identified needs and create wealth (Omolayo, 2006).

Furthermore, EE was described by the Nigerian Education Research and Development Council (NERDC, 2004) as a comprehensive term referring to those aspects of the educational process; including the study of science and technology, acquisition of entrepreneurial attitudes, knowledge, and skills relevant to occupations in diverse sectors of economic and social life. EE as well as seeks to increase entrepreneurial knowledge, skills, capacities, intentions, and attitudes of students that are in tandem with the current requirements of an economy (Lo, 2011). It is believed that EE's most significant objective is to deliberately assist graduates, as well as assisting both practicing and potential entrepreneurs in setting up and operating their own entrepreneurial business ventures instead of seeking paid employment from someone else or institutions (Mwangi, 2011). EE delivers specialized knowledge to students that inculcate the traits of risk-taking, innovation, and arbitrage and coordination of production factors for the purpose of creating new goods and or services to new and existing users in societies (Minniti & Levesque, 2008). EE seeks to make available to students of HEIs the motivation, knowledge, and skills to support entrepreneurial studies in a diversity of setting (European Union Commission, 2010).

In addition, scholars argued that EE is any type of education that lay emphasis on entrepreneurship as the precursor to changing the students' attitude to consider self-employment as a viable career option (Holmgren & From, 2005). In Nigeria, HEIs were mandated to remodel the students' mindset towards entrepreneurship as a career option (Israel & Johnmark, 2014). Therefore, EE initiatives at the HEIs is considered fundamental for increasing the supply of potential entrepreneurs by making more students be aware of and choose entrepreneurship as a career option. This is contrary to the old belief that the role of HEIs was to make students available for employment in public or private sector organisations rather than prepare them to be self-employed (Fletcher, 1999; & Kirby, 2004). Hence, the objective of EE in HEIs was to transfer some basic competencies to students.

Equally, competency development involves the transfer of knowledge, skills and attitudes (values and behaviour) to a framework of entrepreneurial know-what, know-who, and know-why (William Middleton & Donnellon, 2013). Similarly, Bird (1995) assumes some of the entrepreneurial competencies as know-what (knowledge), know-who (social skills), and know-why (attitudes, values, motives). In addition, entrepreneurial competencies can be transferred through various means and manner (Fayolle, 2008). He further explained that resource availability, institutional context, programme content, and objectives, to a large extent defines the choice of techniques and modalities to be employed (Fayolle, 2008). These EE competencies were the type of knowledge students' need to acquire to know what to do to create a new venture (know-what). Others include; knowledge of social skill development and network to communicate with entrepreneurial experts, role models, and other important stakeholders (know-who); and the knowledge that an individual requires to understand and justify his actions which are labelled the know-why. Previous researchers have applied this taxonomy to the study of entrepreneurship education (Hussain & Hashim, 2015; Othman & Nasrudin, 2016; Souitaris et al., 2007).

5.2.1 The Know-what Component

Know-what (knowledge and capabilities) is the theoretical framework of knowledge for entrepreneurial action. Know-what competency is seen as the most fundamental part of EE courses because all skills and techniques are theory-based. Also, know-what helps to gain an understanding and knowledge of what and who is significant in an attempt to act entrepreneurially. Similarly, Liao and Welsch (2008) classified know-what component into four groups; planning activities, establishing legitimacy, resource combination, and market behaviour. Consequently, know-what includes competencies in the area of developing a business idea, scanning the environment for opportunities, planning the business, assembling resources, marketing management, managing business risks, legal requirements, creating a business venture, and managing the business. Therefore, know-what knowledge imparts basic knowledge and principles of entrepreneurship and facilitates the know-how, know-who, know-why, and know-when components.

5.2.2 The Know-who Component

Know-who refers to networking skills (Johannisson, 1991; Souitaris et al., 2007). It involves the social capability of a person to collaborate and connect with different types of people and experts (Asghar et al., 2016). In order to create and manage their businesses, entrepreneurs must interact and acquire information, support services, and other resources from people that are considered important. For examples, the need to interact with entrepreneurial lecturers, experts, classmates (Johannisson, 1991; Othman & Nasrudin, 2016). Thus, know-who

is an important component of EE, because interacting with people that are significant to new venture creation is a critical requirement for survival and growth of the new business (Johannisson, 1991).

Additionally, know-who is a social interaction between students and entrepreneurial lecturers, guest speakers, and experts such as graduate entrepreneurs, successful local entrepreneurs, and other professionals. EE must offer opportunities for the participants to interact with entrepreneurs and other experts (Hussain & Hashim, 2015). In effect, EE teachers should build a good entrepreneurial network and invite appropriate persons to give a talk on their courses, because students should obtain a real picture of ECO and its practice (Hegarty, 2006). In order to gain new perspectives and generate new business ideas, students need to develop links with a diverse set of people and build teams.

5.2.3 The Know-why Component

Know-why competencies are the values and motivations for introducing an entrepreneurial activity as well as a person's attitudes to the activities. Therefore, developing the motivation and positive attitudes to entrepreneurship as a career option is an important objective of EE. It was postulated that EE should go beyond know-what and know-how, which means, although skills learnt in school are important, but are inadequate to create successful entrepreneurs (Ray, 1997). Therefore, know-why competencies attempt to provide answers to the reason why an individual starts a business and persevere in it, and what are the benefits to the individual. Precisely, know-why is the judgment made by an individual's justification and feeling of what makes him/her perform an entrepreneurial action, such as creating a new business venture. As such, know-why provides the self-justification and resolution to perform and in what way, that stems from the individuals from individuals' own opinion that entrepreneurial reason is natural and complete (Johannisson, 1991).

5.2.4 Creativity

Over the years, research on personality has argued that intrinsic motivation as an important attribute of individuals that are creative (Amabile, 1996; Zwang & Bartol, 2010). As the case of personality, states and drive motives could as well be an outcome of the same process. But, it does make sense that creative individuals tend to pursue intrinsic interests and responsibilities that are intrinsically motivated, persons tend to be free from the evaluations and constraint that could thwart creativity (Runco, 2004). Entrepreneurs are concerned with the creation of new products, new process, or new markets, as well as bringing something new to the marketplace (Okpara, 2007). In the process, the entrepreneur ponders in original thinking more than any other person thinks and he is able to produce solutions that hover in the face of established knowledge (Okpara, 2007). Hence, creativity is an individual's power to produce ideas and thoughts that are innovative and new (Amabile, 1996; Matthews, 2007). It is also regarded as the ability to create outcomes that are not only appropriate, but that are different (Sternberg & Lubart, 1999).

In most instances, creativity was confused with innovation, whereas there is a clear distinction between the two concepts. Scholars have argued that the association between creativity and innovation is contingent and multi-faceted in nature (Saroghi, Libaers, Burkemper, 2013). Whereas creativity involves the generation of novel and useful ideas, innovation, on the other hand, causes the implementation of these ideas to produce novel products and processes (Amabile, 1996; Shelley, 2004). Hence, creativity enables individuals to produce ideas that are new and important, innovation is the practice where creative ideas are converted to produce significant accomplishments or results (Matthews, 2007).

5.3 Relationship between EE and ECO

Previous studies have demonstrated a remarkable and significant relationship between EE and ECO (Fatoki, 2014; Hussain & Hashim, 2015). A survey conducted by Souitaris et al. (2007) tested the effects of EE programmes on entrepreneurial attitudes and intentions of science and engineering students to test the assertion that EE increases intention to establish a new venture. Findings suggest that EE raise the attitude and entrepreneurial intention of students. In addition, EE expressively instigates the students to pick ECO. Likewise, do Paco and Raposo (2011) posited a significant relationship between EE, new venture formation, and subsequent entrepreneurial performance. Likewise, a survey found that students' self-confidence to begin a commercial enterprise is significantly influenced by EE courses by showing students' optimism to start just after graduation (Rankhumise, Hammer, & Shambare, 2012).

Moreover, Mitchell (2004) examined the motivation to begin business by gender and found that both genders were motivated by the desire for independence, material rewards, and need to get rich. But male entrepreneurs show more motivation for family protection and the desire to be distinctive, while female entrepreneurs indicate more than male the motivation to continue learning and earn a living. Also, Von Graevenitz, Harhoff, and Weber (2010) with the use of ex-ante and ex-post data, found that students' intent to create an enterprise slightly decline, but EE has significant positive effects on students' entrepreneurial skills.

5.3.1 Relationship between know-what and ECO

Entrepreneurial know-what refers to encyclopedic knowledge of entrepreneurship. It is the knowledge of what to do in order to perform entrepreneurship (Johannisson, 1991; Othman & Nasrudin, 2016). In a study conducted to investigate the relationship between EE and EI among university students, a significant positive relationship was found between know-what and know-who knowledge and EI (Hussain & Hashim, 2015). Likewise, other studies reported a positive impact on the perceived effectiveness of EE and university students' career aspirations (Fatoki & Oni, 2014). It is further indicated that EE encourages students to choose ECO and taught the skill of business plan preparation but did not prove helpful in helping pupils to meet people with good venture ideas (Fatoki & Oni, 2014). The same survey also reported that positive descriptions of entrepreneurship are limited due to the inadequacy of distinguished models, poor demonstration of the mass media of individuals or small firms, and insufficient backing from essential promoters of vocational choice such as career guidance specialists and teachers (Henderson & Robertson, 1999). Given the discussion above, the following hypothesis is put forth;

H1: There is a significant relationship between know-what competencies and ECO.

5.3.2 Relationship between know-who and ECO

Know-who knowledge refers learning networking skills (Johannisson, 1991; Nabi et al., 2006; Souitaris et al., 2007). More studies have linked entrepreneurial career to social network relationships and the existence of mentors (Rani, 2016; Abaho, 2013). In a survey directed at investigating the character and impact of mentorship on the probability of university students, ECO produced a substantial positive effect (Eesley & Wang, 2014). Using a longitudinal, randomized, controlled field experiment, the study tested whether being mentored by an entrepreneur receives a different impact in EE compared to mentoring from a non-entrepreneur with relevant industry experience. Findings suggest that entrepreneurial mentors have a substantial positive outcome on the rate of entrepreneurship. It was, however, found that the greatest influence on ECO was found on students with particular risk orientation and those from an entrepreneurial family background (Eesley & Wang, 2014).

In Nigeria, a similar study indicates mixed results on the relations between EE and employment stimulation (Akhueomonkhan, Raimi, & Sofoluwe, 2013). Their study examines EE and employment stimulation in Nigeria and uses quantitative research methods to study the relationship between EE and unemployment. The determinations of the study reveal a significant positive correlation between EE and crime rate in Nigeria. The survey found, nonetheless, a negative relationship between EE and unemployment, i.e. the higher the level of EE the lower the rate of unemployment (Akhueomonkhan et al., 2013). Likewise, a survey conducted in Uganda found a positive tie between an improved curriculum and the advancement of the development of entrepreneurial values among universities. The survey found that students who have links to booming entrepreneurs, entrepreneurship lecturers, and experiential learning have high levels of entrepreneurial standards amongst students (Abaho, 2013). Furthermore, a multinational study reported a significant positive impact of EE on entrepreneurial mindsets of students in the USA, Canada, Mexico and Puerto Rico (Peltier & Scovotti, 2010). Based on the foregoing discussions, the following hypothesis is put forth;

H2: There is a significant relationship between know-who competencies and ECO.

5.3.3 Relationship between know-why and ECO

Know-why competencies are innate competencies which presume that a person must be personally involved and convinced that he/she is adept at starting a new venture and opening a career in entrepreneurship. Know-why competencies are the attitude, values, and motivation of the students in EE. In simpler terms, know-why knowledge is intended to enhance the students' self-efficacy, his motivation for achievement, and risk-taking propensity in the framework of the growth of the entrepreneurial spirit, access to mentors, and role models (Asghar, Hakkarainen & Nada, 2016; Udu, 2014; Sondari, 2014).

A survey conducted by DeMartino and Barbato (2003) explored motivational differences using a sample of MBA entrepreneurs. Comparisons were drawn between male and female entrepreneurs who are alike in relation to business training, educational qualifications, and other essential variables. Logistic regression was used to evaluate the connection between gender and career motivators, and between gender and marital status and the existence of dependent kids and career incentives. A similar study using TPB found no significant influence of attitudes on the EIs of students (Zwang, et al., 2015). Likewise, an extended theoretical discussion was guided by empirically exploring people's attitudes to job characteristics and career selection. It was found that people do consider risk, independence, and income when assessing a substitute career option. The sample showed an aversion to danger and a preference for independence and higher income (Douglas & Shepherd, 2011).

In Nigeria, a study found no significant association between EE and university female students' entrepreneurial mindset. The survey examines the entrepreneurial mindset of female students and their perception of entrepreneurship, role model, and the university's role in promoting entrepreneurial mindset.

Findings suggest that there is no significant positive relationship between EE and entrepreneurial mindset of female university students (Israel & Johnmart, 2015). Still, in Nigeria, a study was conducted to examine the association of sex, age, locus of control, socio-economic status, entrepreneurial intentions (EIs), and entrepreneurial self-efficacy (ESE) among Nigerian adolescents. The survey discovered a significant positive association of locus of control, ESE, and socio-economic status with EIs of adolescents; while age and gender were not (Ayodele, 2013). This led to the development of the third hypothesis;

H3: There is a significant relationship between know-why and ECO.

5.3.4 Creativity and ECO

Creativity generates new ideas by changing, merging, or reapplying existing ideas rather than making something out of nothing (Molaei, Reza Zali, Hasan Mobaraki, & Yadollahi Farsi, 2014). Creativity requires the production of raw ideas or the recombination of recognized elements into something new, providing valuable answers to the existing problems (Amabile, 1996). Some creative ideas are astounding and radiant, while some others are simple, safe, practical minds that no one might have guessed about them previously (Harris, 1998). Nevertheless, previous findings in relation to the current research variables have reported significant relationship between creativity and ECO (Lourenco & Jayawarna, 2011; Wennberg, Hamidi, Panasenco, & Stanaityte, 2004; Berglund & Wennberg, 2006; Nasiru, Keat, & Bhatti, 2015). Another study conducted to test the connection between creativity and EI in adolescents and the roles of family and education in promoting the link showed that student's creativity mediates the force of family support for creativity. Based on the foregoing discussions, the hypothesis is put forward;

H4: There is a significant relationship between creativity and ECO.

Consequently, the paper intends to show a relationship between knowledge of know-what, know-who, know-why, and creativity and ECO among students from a HND awarding monotechnic in Kano state which no previous study addressed. Therefore, the independent variables of the study are know-what, know-who, know-why, and creativity; and ECO is the dependent variable.

5.5 Research Framework

Based on the above empirical evidence, a proposed research framework for this study illustrating the relationship between EE and ECO is depicted in figure 1.1

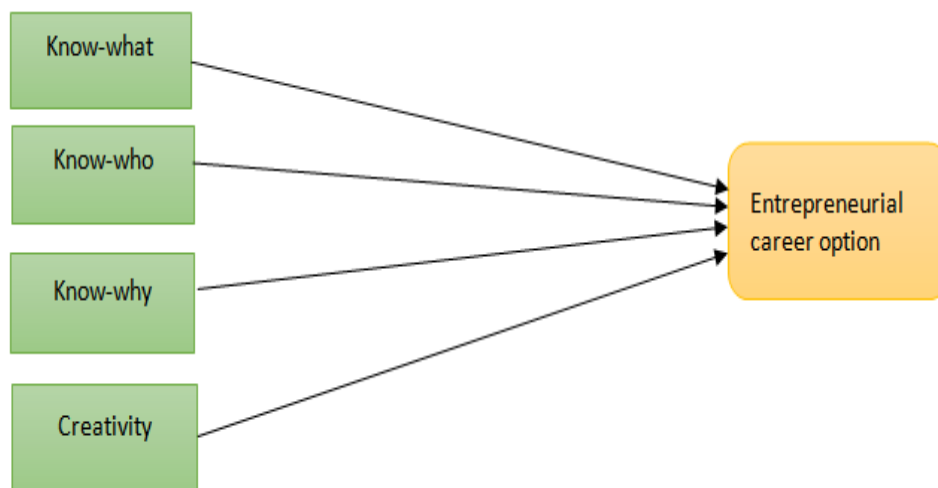


Figure 1.1 Framework of EE, creativity and ECO.

In explaining the components of *EE, creativity and ECO*, the paper established a positive relationship between *EE, creativity and ECO*. This indicated that well-selected *EE* competencies and creativity are subjected to higher *ECO*. This is supported by human capital theory as indicated by the empirical findings across the world. Based on the previous literature, this study explains the concept of *EE, creativity, and ECO* as well as established a relationship between the study variables in relations to the development of entrepreneurship in the Nigerian polytechnics.

VI. Methodology

As the study investigates the relationship between *EE* competencies, creativity and *ECO*, a small sample of 90 students was selected in random from Audu Bako College of Agriculture (ABCOA), Danbatta. In line with the recommendation of Malhotra (2008), a sample size of about 15-30 respondents are adequate for

pre-test, whose sample is usually few but could be increased based on the number of stages involved in a test (Gorodontse & Hilman, 2014; Maiyaki & Mokhtar, 2011; Shehu & Mahmood, 2014). In this respect, a total of 90 copies of questionnaires were personally administered to HND II students of ABCOA and 72 representing 80 percent of questionnaires were duly completed and returned. Out of the 72 returned, 4 copies were not properly filled as such not included in the analysis. Therefore, a total of 68 responses were available for analysis.

The Cronbach's alpha coefficient has been variously described as the most acceptable test of the reliability of inter-item uniformity (Sekaran & Bougie, 2010). Therefore, the Cronbach alpha test of reliability is adopted in this study to establish the uniformity of the analysis tools. Data analysis was conducted with the aid of Statistical Package of Social Science (SPSS) windows version 23.

VII. Instrumentation and Measurement of Variables

In this study, a well-prepared close-ended questionnaire structured in multiple-choice responses was used. The questionnaire was designed to measure the perception of respondents as such the Likert scale proves the most reliable and suitable measure (Alreck & Settle, 1995). Meanwhile, in an academic research such as the one on-going, rating scales are most frequently used for the measurement of latent constructs, and therefore the study adopted rating scales to measure the constructs (Churchill & Peter, 1984). The independent, dependent, and mediating variables of the study are structured on a 7 point Likert scale. This is because of the relative advantage of 7 points Likert scale over other measuring scales by providing detail feedback and less burden on respondents (Hair, Black, Babin, Anderson, & Tathan, 2006; Cavana, Delahaye, & Sekaran, 2001; Churchill & Peter 1984). Similarly, with a scale consisting of more points, the respondent can be able to show their stand clearly, as such expressing their feelings unambiguously. This is in tandem with the opinion of Krosnick and Fabrigar (1997) that measurement error could result when respondents are compelled to choose from few restricted choices. In addition, it was observed that when a mid-point is included in a measurement scale, the quality of data increases while interviewer bias tends to decrease (Krosnick & Fabrigar, 1997). Hence, in order to obtain an optimal result for processing of information and reliability of scale, 7 points Likert scale is considered to be an efficient measure (Churchill & Peter, 1984).

The key constructs/variables contained in the study are; entrepreneurial career option, know-what, know-who, know-why, and creativity. The study used only items that are important in providing answers to the research questions. In addition, responsive questions were avoided so as to achieve a response rate that is considered high (Sekaran & Bougie, 2010). In the first section of the questionnaire are demographic questions including; sex, marital status, age, work experience, employment status, employment experience, etc. The second section consists of 28 item questions seeking to measure the commitment of students to entrepreneurship as a career option. The measures were adopted from the previous works of Drnovsek & Glas (2002), Le Roux (2005), Steenkamp & Van der Merwe (2011), Moy, Luk, and Wright (2003); and Theng and Boon (1996). Section 3 was aimed at measuring the feelings of respondents to entrepreneurial courses they have attended, and a total of 17 questions were designed to measure the EE in terms of know-what (5), know-who (6), and know-why (6) competencies. These measures were adapted from the previous work of Lo (2011). In addition, 28 items measured individual creativity was adapted from the previous work of Olatoye, Akintunde, and Yakasai (2010).

VIII. Results of Validity and Reliability Tests

8.1 Content and Face Validity

The validity and reliability studies were conducted to ascertain that the items of the scale can measure what they are theoretically set to measure. Validity involves using a few sample of the representative and giving specialists to scrutinize and make conclusions on the suitability of the items included in explaining a study variable (Hair, Money, Samouel & Page, 2007; Hair et al., 2010; Sekaran & Bougie, 2010). Accordingly, samples of the instrument were distributed to specialists in order to get responses with regards to its adequacy, correctness, and appropriateness in determining a variable. Also, some PhD research fellows who were familiar with the content and context of the study were involved in determining the richness and clarity of the instrument. In the process, a number of items were rephrased or re-worded so as to be clearer to the potential respondents and ensure that it represents the study constructs properly. An enriched form of the instrument was developed from the issues raised on the previous version which was administered in this research.

8.2 Reliability Tests

Internal consistency reliability test was used to measure inter-item reliability. A most popular variant of this measure is the Cronbach's alpha coefficient. This determines the degree to which items in a scale collectively measure a construct and the degree of relationship with one another (Sekaran & Bougie, 2010). Therefore, in this study, the determination of internal consistency of items was conducted using the Cronbach's alpha test. The data was administered using SPSS version 23 for windows and the results show high-reliability criterion of the constructs; entrepreneurial career option (0.986), know-what (0.894), know-who

(0.879), know-why (0.892), and creativity (0.948). Meanwhile, a reliability coefficient of 0.60 is regarded as average, and a coefficient of 0.70 is regarded as a high reliability (Hair, Black, Babin, Anderson, & Tathan, 2006; 2010; Nunnally, 1967; Sekaran & Bougie, 2010). However, some research experts considered a reliability coefficient of 0.70 as being low but others argued that a lower coefficient alpha can be accepted (Hair, Money, Samouel, & Page, 2007). Nunnally (1967) argued that an alpha of 0.50 coefficient is acceptable. Based on this, the alpha coefficient obtained for all the variables under study is quite adequate for analysis. The result of Cronbach's alpha of the variables under review in the pilot study is shown in Table 1. It shows that the result of pilot study for all the variable under investigation ranges between 0.879 to 0.986, thus above the recommended benchmark of 0.70, all the variables under study are reliable.

Table 1: Reliability of study using SPSS version 23 for Windows

Construct	No. of Items	Cronbach's Alpha
Entrepreneurial career option	28	0.986
Know-what	5	0.894
Know-who	6	0.879
Know-why	6	0.892
Creativity	28	0.948
Total	73	

8.3 Demographic Profile of Respondents

Invariably, it can be deduced from the demographic result that respondents are more among men, 45 representing 62.5 percent than women, 23 representing 33.8 percent, which confirms earlier conventional belief that women in Nigeria are not akin to formal education as men do. Table 2 further showed that majority of the respondents (38) representing 55.9 percent are between the ages of 20-29 years old, followed by older adults (20) representing 29.4 percent. This is in harmony with the provision of the Nigerian policy on education. Similarly, demographic data also indicate that most of the respondents (41) representing 60.3 percent are single. Also, data clearly indicate that most of the respondents (47) representing 69.1 percent are unemployed, while only 14 representing 20.6 percent have already embraced ECO. Finally, it shows that 56 respondents representing 82.4 percent have less than 3 years of entrepreneurial experience. This indicates that recently there are more students becoming self-employed and raises the expectation that more graduates are likely to join self-employment in the near future. Meanwhile, it is noteworthy to observe that most of the students are unemployed, and fail to embrace an entrepreneurial career thereby increasing the level of unemployment, poverty, and crime among youth.

Table 2: Summary of Demographic Data of Respondents

S/N	Items		Frequency	Percentage
1	Gender	Male	45	66.2
		Female	23	33.8
2	Age	Less than 20 years	6	8.8
		20-29 years old	38	55.9
		30-39 years old	20	29.4
		40-49 years old	3	4.4
		50 years and above	1	1.5
3	Marital status	Married	20	29.4
		Single	41	60.3
		Widowed	6	8.8
		Divorced	1	1.5
4	Work experience	Employed	7	10.3
		Unemployed	47	69.1
		Self-employed	14	20.6
5	Self-employment experience	Young entrepreneur – less than 3 years	56	82.4
		Old entrepreneur – 3-5 years	5	7.4
		Old entrepreneur – 6-10 years	3	4.4
		Old entrepreneur – 11 years and above	4	5.9

8.4 Distribution of Data

Normality hypothesis is a major requirement of inferential statistical methods (Pallant, 2001; Tabacknick & Fidell, 2007). Data is said to be normal when it is balanced, bell-shaped, and with much of the frequency scores laid in the middle and smaller scores dispersed at the extreme ends of the bell-shape. The values of data skewness and kurtosis are the measure of data normality. Whereas skewness is concerned with

the symmetry of the data, kurtosis measures the magnitude to which data is top-most or plane (Tabacknick & Fidell, 2007). In this study, the skewness and kurtosis values of the data can credibly be described as normal.

IX. Findings

Multiple regression analysis provides an avenue of neutrally assessing the degree and character of the relationship between independent variables and the dependent variable (Sekararan & Bougie, 2012). Regression analysis was employed to test the hypothesis in this study; it is intended to investigate the relationship between predicting as well as the criterion variables respectively. The fundamental assumption above was carefully examined and found that none of the assumptions was violated in this study, thus, making the conduct of multiple regression analysis appropriate.

Furthermore, multiple regression analysis using SPSS was conducted in determining the relationship between Know-what and ECO, know-who and ECO, know-why and ECO, and creativity and ECO. These indicated that four predicting variables predict the criterion with the following values as; ($\beta = 0.640$, $t = 3.003$, $p < .000$), ($\beta = 0.684$, $t = 92.865$, $p < .000$), ($\beta = 0.484$, $t = 4.006$, $p < .000$), and ($\beta = 0.665$, $t = 2.98$, $p < .000$) respectively. Therefore, hypothesis H1, H2, H3 and H4 are all supported. Thus this indicated the existence of a significant relationship between EE, creativity and ECO as supported by the coefficient.

X. Conclusion and Implications

Thus, entrepreneurial career is a most sought after career option for the youth as they prepare to join the labour market after their graduation (Udu, 2014; Xavier, Ayob, Mohd Nor & Yusof, 2012). Some of the basic objectives of EE is to equip participants with theoretical knowledge of entrepreneurship (know-what), impart networking skills (know-who), and justify the attitude and motivation for entrepreneurial action (know-why) (Asghar, Hakkarainen & Nada, 2016; Hussain & Hashim, 2015). Similarly, the study accepts that creativity disposition of students is related to their ECO (Ooi & Nasiru, 2015). More so, the study statistically revealed a valid and reliable measurement as the study used a population sample from monotechnic offering HND programmes in 2016/2017 session, precisely in the month of July 2017. Also, inter-item test of reliability was greater than the benchmark of 0.50 for all the variables, incidentally, no item need to be deleted. Furthermore, the entire results covered the relationship between the all the study independent and dependent variables. The determination of path coefficient significance was presented as major findings of this research. Meanwhile, the self-report method was used and it provided a statistical support regarding the relationship between EE and ECO. Similarly, the path coefficients revealed a positive relationship between know-what and ECO, know-who and ECO, know-why and ECO, and creativity and ECO.

Consequently, the study indicates a positive relationship between theoretical knowledge of entrepreneurship (know-what), social networking skills (know-who), attitudes and motivation (know-why), creativity, and entrepreneurial career option among polytechnic students. Impliedly, EE components of know-what, know-who, know-why, and individual creativeness influence graduate students' decision to choose ECO as a legitimate career path option after graduation rather than take up jobs with public or private sector organisations.

The study findings are immensely beneficial to governments and employers of labour of both private and public sector organisations. It is significant to state and federal ministries of education as the policymaking body. Equally, the National Universities Commission (NUC), National Board for Technical Education (NBTE), and the National Commission for Colleges of Education (NCCE) also stand to benefit immensely by the outcome of the study. Similarly, HEIs will find the study immensely beneficial as they implement government policies on EE. It is also significant to the general public as it adds to the body of knowledge on EE and ECO.

The study is by no means exhaustive. Future research needs to look at the personal, sociological, psychological, and environmental factors that lead to the choice of entrepreneurial career path option. Future studies should examine other individual and environmental factors that may affect students' decision to choose ECO. Other dimensions such as students home background, life aspirations, labour market condition, parental occupation, socio-economic background, recognition of opportunities, availability of funding, and availability of government support etc., may need to be explored for possible influence on ECO. In addition, longitudinal studies need to be carried out to establish clearly the relationship between exposure to EE, creativity and graduates career option 3 – 5 years after graduation.

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