The Moderating Role of Innovativeness on the Relationship between Entrepreneurship Educations And Student Entrepreneurial Intention

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Abstract: This study examined the moderating role of innovativeness on the relationship between entrepreneurship education and students’ entrepreneurial intention among FUD final year students as at 2017/2018 academic session. The study used a cross-sectional research design with a quantitative questionnaire approach to collect the data. To validate the model, data from 282 final year students were analyzed using the Partial Least Squares Structural Equation Modelling (PLS-SEM). Overall, the survey discovered that both entrepreneurship education and innovativeness are significantly and positively connected to entrepreneurial intention. This report also discovered that innovativeness play a part in moderating the entrepreneurship education and entrepreneurial intention relationship. The study used Human Capital Theory HCT as a theoretical basis of the subject. This survey served as one of the pioneering study with regard to HCT in a testing relationship of this nature. This study recommended that other researchers should employ this hypothesis with other antecedent of entrepreneurial intention for further proof. As a repercussion to policy, the government ought to guarantee not only inspiring
students with entrepreneurship education, but also the robust spirit of innovativeness among students as it delivers a direct effect as well as strong interaction with entrepreneurship education in influencing students' entrepreneurial intention.

**Keywords:** Entrepreneurship Education, innovativeness, Human Capital Theory and Entrepreneurial intention,

### 1.0 Introduction

The persisting rise in unemployment, high population growth and low entrepreneurial intention, especially among Nigerian graduates has become a major concern to government and other stakeholders. Statistic indicated that unemployment increased from 19.7% in the 3rd quarter 2016 to 21.0% in the 4th quarter of same year (NBS 2017), while employability status of Nigerian university graduate is 36.26% based on (STUTERN Report 2016), the Nigerian population rises from 184.6 million as of 2016 to 188,906,160 as at 2017 (NBS, 2017) while level of entrepreneurial intention is 44% according to GEM 2012 Sub-Saharan African ranking which is low in associating to other African countries like Angola, Botswana, and Malawi with 70, 72, and 70 respectively. This could be the reasons behind the inclusion of entrepreneurship education into the Nigeria tertiary education system. Norman, Douglas, Takaruza and Morgen (2016) posited that the world presently requires people with creative, multifaceted and diversified entrepreneurial knowledge and skills toward answer to the twin challenges of shrinking economics and unemployment.

In view of these, there has been an increase in studies on factors that affects entrepreneurial intention especially in developed economies. Some of these studies include entrepreneurship education (Daniela, Rainer, Norbert, & Birgit, 2015; Peter & Moses, 2014; Malabena, 2015; Muhammad, 2013), entrepreneurial orientation (Boltone, 2012; Boltone & Lane 2012; Koe, 2016) environmental factors (Fini et al, 2009; Sadeghi et al 2013) among others. However, with all the reported growth in the number of studies on factors affecting entrepreneurship intention worldwide, the relationship between entrepreneurship education and student intention is still under investigation in Africa, particularly sub-Saharan Africa, including Nigeria and also inconsistencies of research findings (Ajetunmobi & Ademola, 2014; Akande & Alabi, 2015) and specifically northern Nigeria Nuhu, Loon & Bell (2016). Furthermore, the relationship between entrepreneurship education and innovativeness in relation to students’ entrepreneurship intention is not well established in the extent literatures.

Moreover Many studies reported a positive relationship between entrepreneurship education and entrepreneurial intention and there are others whose studies in this area generally differ considerably. For instance, (Idogho and Ainabor, 2011; Ojeifo 2012; Famous and Okafor, 2010; Baba, 2014; Ekundayo and Babatunde, 2014; Emmanuel, Adejoke, Olugbenga and Olatunde, 2012; Ooi and Nasiru, 2015) found that entrepreneurship education as a means of developing entrepreneurship skills and potentials of students have a positive relationship with the entrepreneurship intention, while others like; (Abiodun, Isaac, and Titilayo, 2015; Ksenija, Irena, and Dina,
2015; Muhammad, 2013) reported entrepreneurship education for having no significant impact on the entrepreneurship skills and potentials of students.

Moreover Nuhu, et al. (2016) in their systemic review of entrepreneurship education literature draw the sample of 213 studies from 5 different online data base reported that; all the regions in the northern parts (North-central, north-east, north-west) are under researched with 5.2% (north east) as the least in that part and 11.7% as the highest (north-central). With this inconsistency no conclusion can be drawn. Consequently, as suggested by (Baron and Kenny 1986:), where there is weak, or inconsistent relationship between independent and dependent variables, a typical moderating variable can be introduced to balance the relationship. As such this study is employing innovativeness to moderate the relationship between entrepreneurship education and students entrepreneurial intention among FUD students. It is against this background the following hypothesis where formulated to guide the study.

H01: EED has no significant relationship with EIT
H02: INN has no significant relationship with EIT
H03: INN does not moderates the relationship between EED and EIT

The remaining parts of the paper include the following; first, reviews of related literatures and theoretical framework, followed by methodology, data analysis and presentation of findings. The paper finally concludes with direction for further studies.

2.0 Literature Review and Conceptual Framework

2.1 Concept of Entrepreneurial Intention (EIT)
Commonly, intention is the intellectual state of mind directly prior to performing particular behaviour (Krueger, 2005). It’s also stated that entrepreneurial intention is concerned with the proclivity of an individual to start an entrepreneurial activity in the future (Davidson, 1995). It is also a key determinant of the action of new venture creation moderated by exogenous variables such as education and training, level of innovativeness among others.

Entrepreneurship intention is also defined by Thompson (2009) as “a self-acknowledged opinion by a person that they propose to set up a new business venture and deliberately plan to do so at some point in the future. Preceding studies have showed that entrepreneurship intention is a solid predictor of planned behaviour (Ajzen, 1991). It was also recommended by (Pittaway and Cope 2007) that more studies on entrepreneurship intention should be linked to employability in small and medium enterprises to provide a reasonable justification. This paper is of the opinion that using student in entrepreneurship intention studies would provide reasonable justification than small and medium enterprise based on position of (Shane, 2004) who contained that; Universities are being regarded as a birthplace of technological development that is valuable to business activity.

2.2 Entrepreneurship Education and Entrepreneurial Intention
To date policy makers are primarily concerned on the influence of entrepreneurship education on graduates’ career decision, and therefore how it can be influenced by policy measures (European Commission,
2003). Consequently, over the past decade there has been a considerable increase in entrepreneurship programs worldwide designed to cultivate entrepreneurial culture at all levels of the educational system (Yakubu, & Norashidah, 2016).

However, researchers like (Ekundayo & Babatunde, 2014) documented that inclusion of entrepreneurship education influences students’ intentions of becoming self-employed. Also (Karimi, Biemans, Lans, Chizari, & Mulder, 2014) posited that all types of norms and perceived behavioral control. Results also indicated that of Entrepreneurship Education Programmes taken significant positive impacts on students’ subjective entrepreneurial intentions, although this increase was not significant for the compulsory Entrepreneurship Education Programmes. Furthermore, Peter and Moses (2014) analyze the influence of entrepreneurship education on beliefs, attitudes and intentions of Africa University alumni using the sample of 60 business graduates (X1) and another sample of 60 non-business graduates (X2) out of 438 alumni that graduated between 2009 and 2012; their study revealed that alumni who took an Entrepreneurial course have high rating scores on most indicators of entrepreneurship. On the other hand, Abiodun & Oyejoke, (2017) revealed that Entrepreneurship Education considerably influences students’ Entrepreneurship intentions.

However, in a study by (Nasiru, Ooi, and Bhatti, 2015) a significant negative relationship was found between perceived effective entrepreneurship education and entrepreneurial intention in their study. Also (Muhammed, 2013) posited that business education does not have significant influence on increasing the entrepreneurship abilities of the students, he further stated that; the children of those parents who are already involved in any kind of business do have an clear potential to start and run their own business. More so (Abiodun Isaac, & Titilayo, 2015) reported that there is no significant positive connection between new venture creation and content of entrepreneurship lectures. They also stated that venture formation needs some other factors besides entrepreneurship education. This study assumed that; innovativeness could be one of these factors. In another study (Ksenija et al., 2015) reported that entrepreneurial intentions do not increase due to exposure to entrepreneurship education.

Evidence from the reviewed literatures shows that there are inconsistencies of findings on association of entrepreneurship education with students entrepreneurship intention, this suggested the need for a moderator to balance the relationship as recommended by (Baron and Kenny, 1986; Nasiru, 2015) whom posited that; when weak, or inconsistent relationships exist between independent and dependent variables, a typical moderating variable can be introduced.

2.3 Innovativeness and Entrepreneurial Intention

Innovativeness is repeatedly stated in the literatures as an important component of entrepreneurship. Thomas, Ambross and Denis (2016) pointed out that that innovativeness is a primary motivation in starting a new business venture. Entrepreneurship and innovative business behaviour have
been synonymously termed as an act of creativeness (Ward 2006). Also Drucker (1986) advocates that “innovativeness is the specific device of entrepreneurs”. Robinson et al. (1991) posited that innovation in business is related to “long-sighted and performing upon business actions in different and exceptional ways”. The belief that entrepreneurs are more innovative than non-entrepreneurs is also supported by numerous experimental investigation results (Gurol & Atsan, 2006; Koh, 1996; Robinson et al., 1991). Mueller and Thomas’s (2001) study confirm innovation as a principal purpose in starting a business venture. A number of studies have revealed that it also has a momentous consequence on Business performance (Utsch & Rauch, 2000). In the studies of (Koh, 1996; Gurol, & Atsan 2006), innovativeness was establish to have a positive statistically important association with entrepreneurship intention.

With all the reported relationship between innovativeness and new venture creation, Business performance and or students entrepreneurial intention the relationship between entrepreneurship educations with innovativeness in relation to student entrepreneurial intention is still not established in the extent literatures. This paper aim at addressing this gap

**Figure 1 conceptual framework developed for the study**

![Conceptual Framework](image)

### 2.4 Human Capital Theory

This theory was developed by Becker in 1964 originally for estimating his employees' income distribution in relation to their investments in human capital. He describes human capital as talents and awareness that employees acquire through investments in schooling, on-the-job training, and other types of experiences. It comprises the stock of knowledge and skills that reside within individuals. Precisely, it includes the unique insights, skills, cognitive characteristics and aptitudes of entrepreneurs. It also includes accomplished attributes, accrued work and habits that may have a positive or negative effect on productivity. It represents a resource that is heterogeneously distributed across
individuals and is thus, central to accepting changes in opportunity identification and exploitation. Researchers have employed a enormous range of variables indicating human capital such as formal education and training, employment experience, start-up experience, skills and knowledge, individual creativity and innovativeness among others (Muhammad; 2016). This study adopted Human Capital theory because the study assumed that entrepreneurship education couple with innovativeness may result to higher entrepreneurship intention in student. Thus, from the theory viewpoint, individuals with more or higher human capital achieve higher intention when executing tasks. Entrepreneurial education, and individual creativity or innovativeness are therefore the human capitals that are needed for better intention to create business venture.

3.0 Methodology
The study adopts survey research design which is cross-sectional in nature. This type of research design is adopted because the information about the variables represents what is going on at only one point in time. The paper obtained Primary data from the population of the study using self-administered questionnaire. The population of the study consists of 793 final year students of Federal University Dutse (FUD) during the 2017/2018 session where the sample size of 266 obtained from the population using Yamanee formula and 30% was added to the sample size as recommended this change the sample size to 346. The researchers used University final year students ideally because they about to engage in the real entrepreneurial behaviour. The researchers chooses FUD final year students not by priority rather because the entrepreneurship education curriculum is consider the same across all the universities in the country and all the student took the courses in their 200 and 300 level respectively. The Simple random sampling technique was adopted given the fact that the population is homogeneous in nature. Out of the 346 questionnaires distributed 305 filled and returned, 23 had more than 10% missing values and one was an unengaged response, thus they were all deleted. However, 282 were valid and useful for analysis. Upon checking no missing values is found, based on the recommended of (Hair, Balck, Babin, Anderson & Tatham, 2006) suit for analysis.

The instrument for measuring entrepreneurship education (EED) was adopted from (Ooi, Selvarajah and Meyer, 2011) Innovativeness (INN) from (Boltone & Lane, 2012) and finally entrepreneurial intention (EIT) from (Liñán & Chen, 2009), all questions were in close ended form and responses were on a 5 point likert scale, thus: strongly agree, agree, undecided, disagree and strongly disagree. EED consists of 5 items including; “My University course prepares me well for an entrepreneurial career, As a result of taking entrepreneurship courses, I now have better understanding about business,” Innovativeness measured by 4 items including “I often like to try new and unusual activities that are not typical but not necessarily risky, In general, I prefer a strong emphasis in projects on unique, one-of-a-kind approaches rather than revisiting tried and true approaches used before, I prefer to try my own unique way when learning new things rather than doing it like everyone else does,. Finally, EIT is
measured by 7 items including “I am ready to do anything legal to be an entrepreneur”, “I am determined to create a firm in the future”.

3.2 Technique of Data Analysis
This study employed the use of SmartPLS 2.0 in order to calculate the two basic model of PLS path modelling i.e. measurement model and structural model base on the recommendation of (Anderson & Gerbing, 1988). Some of the aims for the use of PLS are: places a very flexible restriction in respect of distribution and population of the study (Haenlein & Kaplan, 2004). It also has the likelihood of providing a additional reliable and accurate calculations of moderating roles because its accounts for error that is capable of decreasing the possible relationship as well as the expansion of the confirmation of the theory as stated in (Helm, Eggert, & Garnefeld, 2010; Henseler & Fassott, 2010).

4.1 Discussions of the Results
Table 4.1 Measurement model results

<table>
<thead>
<tr>
<th>Relationship</th>
<th>AVE</th>
<th>Composite Reliability</th>
<th>R square</th>
</tr>
</thead>
<tbody>
<tr>
<td>EED</td>
<td>0.624</td>
<td>0.891</td>
<td></td>
</tr>
<tr>
<td>EIT</td>
<td>0.609</td>
<td>0.916</td>
<td>0.451</td>
</tr>
<tr>
<td>INN</td>
<td>0.473</td>
<td>0.772</td>
<td>0.301</td>
</tr>
</tbody>
</table>

In table 4.1 above, the study carried out confirmatory factor analysis (CFA) in order to check the reliability of the items, the convergent validity as well as the discriminant validity. Table 1 and 2 shows the items loadings are above the serious threshold of ≥.50 as recommended by (Anderson & Gerbing, 1988; Bagozzi, Yi, & Phillips, 1991; Gefen & Straub, 2000). The internal consistency reliability was also attained by composite reliability, the values were more than the vital cut-off value of ≥ .70 (Chin, 1998; Hair et al., 2006). Furthermore, the convergent validity was also reached as average variance extracted (AVE) met the minimum criteria of ≥ .5, the values range between 0.57 and 0.62 as stated in (Fornell & Larcker, 1981; Henseler et al., 2009). The discriminant validity was also achieved as the square root of the AVE is higher than the inter-correlation of each of the study’s construct in relation to other hypotheses of the research model (Chin, 2010; Komiak & Benbasat, 2006) and also higher than the hypothesis correlations (Chin, 2010). It is judicious to say that the measurement model satisfactory met both internal consistency reliability, convergent and discriminant validity. Thus, are effective and consistent for supplementary analyses.

Table 4.2 Test of Hypothesis

<table>
<thead>
<tr>
<th>R/Ship</th>
<th>Beta Values</th>
<th>Standard Error</th>
<th>T Statistics</th>
<th>P Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>EED -&gt; EIT</td>
<td>1.183</td>
<td>0.204</td>
<td>5.895</td>
<td>0.00</td>
<td>Rejected</td>
</tr>
<tr>
<td>EED * INN -</td>
<td>0.712</td>
<td>0.213</td>
<td>3.463</td>
<td>0.00</td>
<td>Rejected</td>
</tr>
<tr>
<td>EIT</td>
<td>0.778</td>
<td>0.128</td>
<td>6.130</td>
<td>0.00</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
This study observes the regulating role of Innovativeness on the relationship of entrepreneurship education with entrepreneurship intention. The explanation and summary of the outcomes are presented in Table 4. The result showed that a positive association exists between entrepreneurship education and entrepreneurship intention of FUD students (beta=1.183; t.value = 5.895; p.value = 0.00), this reject H1. This findings is supported by previous studies like (Ekundayo and Babatunde (2014); Kailer, 201; Peter & Moses, 2016; Okafor, 2010) and contrarily to (Muhammed, 2013). Moreover, this paper discover a significant and positive relation between Innovativeness and entrepreneurship intention (beta value = 0.778; t. value = 6.130; p.value = 0.00) the finding also rejected H2. The finding with regards to H2 this relationship was also not reported in the literatures. The moderating result shows that Innovativeness regulates the relationship between entrepreneurship education and entrepreneurship intention (Beta = -0.712; t.value = 3.463; p.value = 0.00), this violate the assumption that INN does not moderate the relationship between EED and EIT and also H3 rejected. The result of H3 is ground-breaking and the main contribution of this study, this is because the previous studies did not reveal that the indirect (regulating) role of Innovativeness has been examined.

5.1Conclusion and Policy Recommendation
This paper observes the role of innovativeness on the relationship between entrepreneurship education and entrepreneurship intention. The findings revealed that entrepreneurship education, and innovativeness absolutely related to entrepreneurship intention. It also discovered that innovativeness regulates the relationship between entrepreneurship education and Entrepreneurial intention. Thus, the study recommends the investigation of innovativeness as a moderator in other situations particularly in studies where Human Capital Theory (HCT) served as underpinning theory. This paper contributed to the HCT by incorporating the regulating effect of innovativeness which, to the best of the researchers’ knowledge has not been established in the previous studies. The policy consequence of this study is an importance on innovativeness in youth development policies in Nigeria. The Study call for entrepreneurship educators in Nigeria to emphasize more on installing the spirit of creativity and innovation in order to understand the competences possessed by the number of Nigerian students in respects to entrepreneurship intention.

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