A Survey of Entrepreneurship Education and Its Effect on Students' Involvement in Business in School and after School

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Author's contribution
The sole author designed, analysed, interpreted and prepared the manuscript.

ABSTRACT
This study was undertaken to assess the extent to which the introduction of entrepreneurship education (EEd) has helped in building entrepreneurs in school and after school following the introduction of the course into Nigerian educational system more than a decade ago. The assessment was measured based on students' involvement in entrepreneurial activities while in school and their involvement in different business activities after school. Therefore, the entrepreneurs were selected purposively considering graduates entrepreneurs from The Federal Polytechnic Offa between 2010 - 2021 who resides in Offa, from the Federal polytechnic area/Abuja area to Olofa way area. Questionnaire was used to gather data in which 240 questionnaires were administered to the entrepreneurs, out of which 219 were successfully returned. The questionnaire returned were made up of 74 Full-Time (FT) National Diploma (ND) graduates representing 34%, 76 Part-Time (PT) ND graduate representing 35% and 69 Higher National Diploma (HND) graduates representing 32%. After collection of data which was presented in pie charts, the Z-test about proportion and binary logistic regression model were used in analyzing the data. The result of the analysis revealed that, the proportion of graduates' involvement in business activities and changing mindset to business activities due to entrepreneurship education does not significantly varies between graduates that were involved in business while in school and graduates that were involved in business after school. A similar finding in changing mindset to do business while in school also revealed that proportions of graduated students that are participating in business activities while in school and graduated students that participated in business activities while
in school, that EEd in school has influenced in changing their mindset to do business are significantly the same. Also, discovered is that academic performance in EEd does not significantly determine a student involvement in business activities while in school or after school. Based on the findings, the stakeholders are advised to improve on the course content of EEd in tertiary institution for more participation and encourage those with a small-scale business venture.

Keywords: Business activities; entrepreneurship education; graduates; mindset.

1. INTRODUCTION

It is no more a strange thing to see students, especially of higher institutions, in Nigeria getting involved in one business or the other. This trend breaks the barrier that business was seen to be exclusively meant for after school or for those who could not further their education or who could not have paid job. There may be many causes for the current trend but one should not rule out the introduction of Entrepreneurship Education (EEd) in the curriculum of higher institution through the establishment of Entrepreneurship Development Centre (EDC) in various schools. The increase in graduate unemployment in Nigeria led to the introduction of entrepreneurship education. The purpose of introduction of EEd into tertiary institutions in Nigeria was to bring about graduates change of attitude of waiting for white collar job after school to being involved in business activities, even while in school, to reduce unemployment.

EEd is described by Wibowo [1] as an attempt to internalize entrepreneurial spirit and mental wellbeing through educational institutions and other institutions such as training institutions. Tung [2] view EEd as the process of transmitting entrepreneurial knowledge and skills to students to help them exploit a business opportunity.

EEd is to encourage students to be involved in business enterprise while in school and when they are out of school by making sure all students have adequate managerial and trade skills. The main objective of introducing EEd into the Nigerian Educational Curriculum is to equip learners (students) with adequate or relevant entrepreneurial abilities [3].

EEd is a factor that plays an essential role in determining knowledge and entrepreneurial mindset that leads to the entrepreneurial preparation or entrepreneurship involvement of students [4]. Therefore, the ability of the educational system to provide entrepreneurship training for individuals depends on the availability of the requisite capacity in terms of personnel and other facilities for knowledge, skills and building of mindset to be transferred appropriately [5].

According to Njoroge and Gathungu [6] entrepreneurship training may be reporting an increase in sales and profits, and may seem to be registering growth, but what stand against it is lack of training on financial, strategic management and marketing. This limitation should be overcome by EEd which comprises of training on managerial and trade skills. The proper training of the trainers will lead to transfer of knowledge hence, skill acquisition and utilization.

The success in terms of involvement of students in entrepreneurship activities cannot be overemphasized. There are many of them who are engaged in business activities while in school and out of school that can possibly be linked to knowledge acquired through EEd.

Therefore, this paper is to determine the level of involvement by assessing the impact of EEd on students while in school having in mind the rate of involvement, their mindset to venture into business and the relationship between performance in EEd and involvement in business activities.

2. LITERATURE REVIEW

Entrepreneurship education is gaining massive interest day by day among policy makers, business professionals and academics in such a way that it is regarded as the 21st century strategy for economic growth and development of any nation [7], (Izedonmi & Okafor, 2010; Koe, Sa’ari, Majid & Ismail, 2012).

The place of tertiary education on raising entrepreneurs through EEd to yield employment opportunities through the entrepreneurship development is also taking a centre stage in which there are several types of entrepreneurs that are products of tertiary education fastened in economic growth with employment opportunities.
created through the entrepreneurship development through expanding of businesses and poverty reduction [8]. This will lead to achieving one of the goals of economic development founded by successive governments in developing economies which have been the reduction of unemployment by entrepreneurial development [9].

Even though EEd has been a success based on some studies in imparting entrepreneurship skills in managing small scale business, the successes notwithstanding, EEd is yet to be up-help appropriately because of the provision of the adopted curriculum, hence curriculum planners should consider revisiting the curriculum and ensuring that EEd is introduced as a core module for students in all programmes and at all levels. Another area to consider is partnership with other institutions of learning such as Technical and Vocational Education Training (TVET) colleges and business organizations should be promoted to enhance work integrated learning [10].

The subject matter “EEd” since it was reported as an important role in providing new enterprises, has attracted much interest among scholars [11,12]. According to Rakib [13] EEd from the level of knowledge, attitudes, and skills of entrepreneurship either partially or simultaneously influenced the entrepreneurial intention for economic education students at the Faculty of Economics in State University of Makassar. An empirical study on impact of EEd on job intentions of polytechnic students in Nigeria is therefore necessary and when this was carried out by Adewoyin and Famule [14], it was discovered that more than enough evidence has suggested that EEd has positive impact on job intentions of students in Nigerian Polytechnics and Colleges of Technology.

Osakede, Lawanson and Sobowale [15] carried out a study to determine if there is any significant effect of student’s involvement in entrepreneurial activities on academic performance of such students. They used multinomial logistic regression in which entrepreneurial activities was one of the factors and was found not to significantly affect the academic performance of the students.

3. METHODOLOGY

3.1 Research Instrument/Validation

Self-made research questionnaire was used to gather the necessary information for this study. The questionnaire was structured logically and questions were asked to address the research questions. This research instrument was validated by experts and a reliability test was carried out during pre-test before the final administration of the instruments to the respondent. The reliability test using split-half reliability test gave a strong coefficient of 0.85.

3.2 Sampling Technique

The sample for this study is made up of purposively selected graduates’ entrepreneurs from The Federal Polytechnic Offa between 2010 - 2021 who is involved in business activities in Offa, along the Federal polytechnic area/ Abuja area to Olofa way area. Questionnaire was used to gather data in which 240 questionnaires were administered to the entrepreneurs, out of which 219 were successfully returned.

3.3 Methods of Analysis of Data

The data collected through administration of questionnaire was analyzed using both descriptive and inferential statistics. Hence, the data with percentages was presented in Tables and pie charts in which each sector of a circle represents a category of the data with frequencies and percentages. While Z-test about different in proportions and binary logistic regression was used to test some hypotheses.

The above analyses were done with the use of Statistical Packages for Social Sciences (SPSS).

3.4 Hypotheses

The following hypotheses are to be tested in order to ascertain the impact of introducing entrepreneurship as a course in tertiary institutions in Nigeria.

H01: There is no difference between the proportion of graduates that involved in business activities while in school and graduates’ that is involved in business activities after school as a result of entrepreneurship education.

H02: There is no difference between the proportion of graduates changing mindset to business activities while in school and graduates changing mindset to business activities after school as a result of EEd.

H03: The introduction of entrepreneurship course does not determine their participation in entrepreneurship/business activities while in school.
3.5 Descriptive Analysis

This section takes care of presentation of data collected through the administration of questionnaire to graduate entrepreneurs from The Federal Polytechnic Offa that are involved in business activities along The Federal Polytechnic/Abuja area and Olufa way area in Offa.

The gender of graduate entrepreneurs from Table 1 shows that female is 127 with 58% of the graduate entrepreneurs in the study area in Offa while the male graduates that are involved in business activities in the study area in Offa are 92 with 42%.

The ages of the graduate entrepreneurs in the study area from Table 2 shows that ages 18-20 year are more involved in business activities as young graduate in the study area, with frequency of 66, followed by ages 30 and above with 52 frequency and ages 21-23 years, 27-29 years and 24-26 years. Having 45, 29 and 27 frequencies respectively.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>92</td>
<td>42</td>
</tr>
<tr>
<td>Female</td>
<td>127</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>219</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 20 years</td>
<td>66</td>
<td>30</td>
</tr>
<tr>
<td>21 – 23 years</td>
<td>45</td>
<td>21</td>
</tr>
<tr>
<td>24 – 26 years</td>
<td>27</td>
<td>12</td>
</tr>
<tr>
<td>27 – 29 years</td>
<td>29</td>
<td>13</td>
</tr>
<tr>
<td>30 and above years</td>
<td>52</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>219</td>
<td>100</td>
</tr>
</tbody>
</table>

Fig. 1. Pie chart showing respondents by year of graduation
Source: Field Survey (2022)
The breakdown of respondents/graduates based on year of graduation is shown in Fig. 1. The respondents from 2010 – 2012 are 54 students representing approximately 25% of the total respondents, 2013 – 2015 are 53 students or approximately 24% of the total respondents of 219, 2016 -2018 and 2019 - 2021 are 56 with approximately 26% each.

The polytechnic produces graduates from three mode of study; ND Part-Time (PT) and ND Full-Time (FT) and HND Full-Time (FT). The respondents are made up of 74 graduates at ND FT level, 76 graduates at ND PT level and 69 graduates at HND FT level with approximately 34%, 35% and 32% respectively.
The number of graduates that are involved in entrepreneurial activities while in school, out of 219 respondents is 134 while 85 students do not get involved in any business activities while in school. Therefore, the rate of involvement of students in business activities while in school is 61 percent in The Federal Polytechnic Offa.

The chart in Fig. 4 shows that those graduates that change their mindset towards entrepreneurship, out of 219 are 162 representing 74%. While those that are indifferent are 57 representing 26%.

The success rate as indicated by percentage pass is 83% showing that 182 graduates passed EEd examinations out of 219. Only 37 graduates failed representing 17% while in school.

3.6 Test of Hypotheses

1. H01: There is no difference between the proportion of graduates involving in business activities while in school and graduates’ involving in business activities after school as a result of EEd.
   Vs
   H11: The proportion of graduates’ involving in business activities while in school as a result of EEd is more than that of graduates involving in business activities after school.

![Fig. 4. Pie chart showing respondents changing their mindset because of EEd](Source: Field Survey (2022))

![Fig. 5. Pie chart showing respondents performance in EEd](Source: Field Survey (2022))
### Table 3. Z-test about proportion of students’ involvement in entrepreneurship

<table>
<thead>
<tr>
<th>Pearson Chi-Square Test</th>
<th>df</th>
<th>Z-test</th>
<th>p-value (2-sided)</th>
<th>p-value (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.283</td>
<td>1</td>
<td>0.53</td>
<td>0.595</td>
<td>0.30</td>
</tr>
</tbody>
</table>

The p-value of 0.3 in Table 3 is an indication that \( H_{01} \) should be accepted at 5% level of significant. Leading to the fact that there is no significant different between the proportion of graduates’ involving in business activities after school and graduates’ involving in business activities while in school as a result of EEd.

1. \( H_{03} \): The performance of students in entrepreneurship course does not determine their involvement in entrepreneurship/business activities while in school.

\( \text{Vs} \) \( H_{13} \): The performance of students in entrepreneurship course is a determinant factor to their involvement in entrepreneurship/business activities while in school.

### Table 4. Z-test of proportion about students changing mindset to do business because of EEd

<table>
<thead>
<tr>
<th>Pearson Chi-Square Test</th>
<th>df</th>
<th>Z-test</th>
<th>p-value (2-sided)</th>
<th>p-value (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>1</td>
<td>0.00</td>
<td>0.989</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Based on the p-value of 0.49 when carrying out Z-test of proportion about students changing mindset to business activities while in school and after school in Table 4, \( H_{02} \) is rejected at 5% level of significant. Meaning that, the proportion of graduates changing their mindset of venturing into business as a result of EEd while in school is significantly the same in proportion as those after school.

### Table 5. Logistic regression of students’ involvement in business on students’ performance

<table>
<thead>
<tr>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEd_Exam_P</td>
<td>.493</td>
<td>.153</td>
<td>10.424</td>
<td>.001</td>
<td>1.638</td>
</tr>
</tbody>
</table>

### 4. RESULTS AND DISCUSSION

The proportions of those graduates who were involved in business activities while in school did not significantly change between graduates that is involved in business activities after school. This implies that the continuation of EEd in higher learning bring the same value in terms of graduates participating in business while in school and those participating in business after graduation. A similar finding in changing mindset to do business while in school also revealed that proportions of graduated students that are participating in business activities after graduation and graduated students that participated in business activities while in school, that EEd in school has influenced in changing their mindset to do business are significantly the same [16,17].
The performance of students in EEd examinations do not in any where determine the students’ involvement in business activities while in school or after school [18,19]. The fact that a student passes or fails EEd examinations does not make a student to be entrepreneur or not to be entrepreneur.

5. CONCLUSION

The positive effect of EEd since it was introduced over a decade ago can be established in the sense that more students even in non-business studies programs are participating actively in entrepreneurship. A higher proportion of them are involved in small scale business right from inception at ND level coupled with the fact that a higher proportion of students also have been influenced by EEd to change their mindset to being entrepreneur and self-employed. Through this, rate of unemployment will be reduced in our society.

6. RECOMMENDATIONS

The following areas discovered in this study to further improve on EEd in polytechnic and other institutions are

- An improvement of the EEd course content, both theory and practical, in both ND and HND level.
- Students should be made to go through field experience in entrepreneurship outside the school, something similar to Students Industrial Work Experience Scheme (SIWES) at HND level.
- Students who are involved in a formal small scale business organization should be encouraged to register with Cooperate Affairs Commission (CAC) and such students can be awarded marks on practical depending on the standard of the small-scale business organization.

CONSENT

As per international standard or university standard, respondents’ written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

2. Tung LC. The Impact of Entrepreneurship Education on Entrepreneurial Intention of Engineering Students. City University of Hong Kong; 2011.


