ENHENCING ENTRPRENURSHIP IN TECHNICAL AND VOCATIONAL EDUCATION AT TERTIARY EDUCATION LEVEL TO MEET THE CHALLENGES OF THE GLOBALIZATION IN NIGERIA

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ABSTRACT
School Curriculum has become imperative with the evolution of globalization. A sustainable and functional education capable of producing competency based individual with entrepreneurship zeal and capability is very much needed. The recipients of this type of education should be able to cope with the global challenges and demands. Entrepreneurship in Technical Vocational Education becomes inevitable to be able to operate business with different sectors possibly all around the world for socio-economic growth of Nigeria. This paper outlines the status of Entrepreneurship Education in Nigeria, the benefits of entrepreneurship in Nigeria, how entrepreneurship education can be enhanced through Technical and Vocational Education at Tertiary level of Education in Nigeria, for socio-economic development, to be in line with the globalize world. Recommendation and conclusion where finally made.

Key Words: Entrepreneurship, Skills acquisition, socio economic development.

1. Introduction
The benefits of entrepreneurship in Nigeria
Entrepreneurship education in Nigeria seeks to provide students in tertiary institutions with the knowledge, skills and innovation to encourage entrepreneurial success in a variety of ventures. Variations of entrepreneurship education are offered in all levels of schooling in Nigeria, from primary to secondary schools through the graduate university programs. It is a life long learning process. The concept of long life learning is essential to the competitiveness of the knowledge economy. It applies to all levels of education and training and concerns all stages of life as well as the different forms of apprenticeship.

Therefore entrepreneurship education is a positive step in the right direction as a panacea for youth unemployment. This is to inculcate in the youth the spirit of self reliance. This development is intended not only to address the problem of unemployment but also to ensure an entrepreneurial human capacity for National development. It was hope that with the introduction of entrepreneurial education in our tertiary institutions will become centers of excellence. This was aimed at putting the country on the path to join communities of nations that have fought poverty through strengthening of small scale of business. Besides, the youths, when not gainfully employed either in the formal or informal sectors of the economy, become vulnerable to criminal tendencies such as kidnapping, rape, armed robbery, and many other social vices which are a menace to society (Nwakcukwu Nwamuo, 2010).

2. Status of Entrepreneurship in Nigeria
Entrepreneurship can be described as the process of producing something new with value by creating enough time, effort with social risk and resulting to reward and monetary and personal satisfaction. For this reasons, entrepreneurship education is highly needed. What then is entrepreneurship education? Entrepreneurship education is the art of organizing a business opportunity, mobilizing resources (Adah, 2008).

Several institution and agencies were formed to aid the development of entrepreneurship and Small and medium enterprises SME’s, which are listed below:-

- The Nigerian Industrial Development Bank (NIDB)
- Industrial Development Centre
- Second Tier Securities Market
- World Bank SME 1 AND 11 loan schemes
- NERFUND (National Economy Reconstruction Fund)
- People’s and Committee Bank
- Fiscal and monetary policies
- National poverty Eradication
- Advisory Agencies
- Bank of Industries
- Micro Finance Bank
- SMIEIS (Small and Medium Industries Equity Investment Scheme)
- The Nigerian Agricultural and Rural Development Bank Credit Scheme and the seed Capital for small business (The suns of N200b and N75b have been set aside respectively under those scheme)
- The establishment of Entrepreneurship Development Centres (EDCs) in six geo-political zones of the country by the Central Bank of Nigeria CBN, as part of its effort to build capacity for wealth creation and employment generation, as well as complement of the effort of relevant government agencies.

However, it is regrettable that despite the huge human and financial resources invested in those initiatives they have failed to produce the desired results, that is curbing youth unemployment, among others.

3. Statement of the Problem
Nigerian government being aware of the need for Business/Technology based environment among the Nigerian citizenry designed the National Policy on Education to ensure that Technical and Vocational Education at sub-professional level must include the acquisition of appropriate skills and the development of mental, physical and social abilities and competencies as equipment for the individual to live in and contribute to the development of his society (Federal Republic of Nigeria (FRN), 2004). Despite this effort, however, the United Nation Education, Scientifc and Cultural Organization (UNESCO) General monitoring report (GMR) of the year 2010 revealed that about 92 percent of Nigeria population survive on less than 2 dollar daily, while about 71 percent survives on less than 1 dollar daily, a condition many have described as inexcusable judging from the abundant natural resources and high human population at the country’s disposal. The high level of poverty in comparison to the abundant resources available in Nigeria is alarming and disturbing. Looking at this situation, one can rightly say that gap exists within the entrepreneurial curricula/modules and Nigerian youths in the Nigerian tertiary institutions (where youth concentration is high) and need to be enhanced. Major reasons for the gap identified are as follows:-

- Although entrepreneurship is included in all parts of the tertiary education, students’ participation is limited to theoretical aspect of the program.
Nwagwu(2007) opined that the failure of tertiary education to inculcate the above philosophy in students has led to the wastages in both human and natural resources. This is because the youth and graduates from tertiary institutions are not equipped with the skills with which to exploit the natural resources that abound in Nigeria. This prompted the researcher to ask: What are the expected skills and possible measures to enhance Entrepreneurship in Technical and Vocational Education at the tertiary Education level to meet the challenges of globalization in Nigeria?

Globalization here describes the quick and significant technological process in the field of communication which will permit entrepreneurs to have access and exchange information anytime and from any place in the world.

4. Purpose of the study
The major purpose of the study is to identify the skills needed and necessary measures to enhance entrepreneurship in Technical Vocational Education at the tertiary education level to meet the challenges of the globalization in Nigeria. Specifically the study sought to:

a) Identify the skills needed by the students to enhance entrepreneurship in Technical and Vocational Education in Hassan Usman Katsina polytechnic Katsina State.

b) Determine the possible measures to be employed to enhance entrepreneurship skills acquisition among Technical and vocational education students in Hassan Usman Katsina polytechnic.

5. Research Questions
The following research questions were formulated to guide the study:

1. What are the skills needed by students of technical and vocational education to enhance entrepreneurship in Hassan Usman Katsina polytechnic Katsina state?

2. What are the measures to be employed to enhance entrepreneurship skills acquisition among technical and vocational education students in Hassan Usman Katsina polytechnic?

6. Hypothesis
The following null hypothesis were formulated and tested at 0.05 level of significance:

1. There is no significance different between the mean rating of instructors and lecturers of technical and vocational education, on the entrepreneurship skills needed by technical and vocational education students.

2. There is no significance difference between the mean rating of instructors and lecturers of technical and vocational education on the measures to enhance entrepreneurship skills acquisition by students.

7. Research Method
The survey research method was employed. The study was conducted at Hassan usman Katsina polytechnic Katsina state Nigeria, the polytechnic use the National Commission for Collage of Education (NCCE) minimum standard, for the award of Nigeria Certificate In Education(NCE Technical) and the National board for Technical Education minimum standard for the award of National Diploma (ND) and Higher National Diploma (HND) in the various technology fields. A total number of lecturers and instructors drawn from 13 technology departments are as follows:
The population from the above table comprised of lecturers and instructors was randomly selected. The entire population was from Hassan Usman Katsina Polytechnic, Katsina state Nigeria.

A 30-items questionnaire was drafted by the researcher and use for data collection. The questionnaire was drafted using four (4) point rating scale of 4 = highly needed, 3 = Average needed, 2 = moderately needed and 1 = not needed to take care of research question one (1) while 4 = Highly necessary, 3 = Averagely necessary, 2 = Moderately necessary and 1 = Not necessary to take care of research questions 1 and 2 . The questionnaire items were subjected to validation by expects in technical education department. The instrument was trial tested on thirty (30) technical and vocational education students from Isa Kaita Collage of Education, Katsina state. A reliability index of 0.81 was obtained using Cronbach alpha thus making the instrument acceptable for use.

Copies of the questionnaires were administrated to the respondents by the researcher himself with the help of three other research assistants. Collection of the completed questionnaire was done via
the same procedure. The data collected were analyzed using mean, standard deviation for the research questions and t-test was used to test the hypotheses formulated at probability level of significance.

8. Results
The result of this study is represented as follows:-

Research Question 1
What are the skills needed by the students to enhance entrepreneurship in technical and vocational education in Hassan usman Katsina polytechnic Katsina state?

Table 2: mean rating of Lecturers and Instructors on the entrepreneurship skills needed by technical and vocational education students

<table>
<thead>
<tr>
<th>S/NO</th>
<th>Description of items</th>
<th>ᵃ</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manipulative skills</td>
<td>3.40</td>
<td>0.66</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Marketing skills</td>
<td>3.50</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Risk bearing skills</td>
<td>4.15</td>
<td>0.61</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Practical skills</td>
<td>4.49</td>
<td>0.79</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Creative skills</td>
<td>4.34</td>
<td>0.62</td>
<td>Agree</td>
</tr>
<tr>
<td>6</td>
<td>Personal management skills</td>
<td>3.03</td>
<td>0.73</td>
<td>Agree</td>
</tr>
<tr>
<td>7</td>
<td>Professional skills</td>
<td>3.46</td>
<td>0.65</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>Productive skills</td>
<td>4.11</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Innovative skills</td>
<td>4.34</td>
<td>0.63</td>
<td>Agree</td>
</tr>
<tr>
<td>10</td>
<td>Controlling skills</td>
<td>4.22</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>11</td>
<td>Administrative skills</td>
<td>3.98</td>
<td>0.79</td>
<td>Agree</td>
</tr>
<tr>
<td>12</td>
<td>Demonstrable skills</td>
<td>4.10</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>13</td>
<td>Financial resources skills</td>
<td>4.10</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>14</td>
<td>Time management skills</td>
<td>4.00</td>
<td>0.70</td>
<td>Agree</td>
</tr>
<tr>
<td>15</td>
<td>Self motivational skills</td>
<td>3.03</td>
<td>0.70</td>
<td>Agree</td>
</tr>
<tr>
<td>16</td>
<td>Accountability skills</td>
<td>3.46</td>
<td>0.66</td>
<td>Agree</td>
</tr>
</tbody>
</table>

From table 2, it was evident that the sixteen entrepreneurship skills has had a mean of 3.03 to 4.49 showing that the skills are all needed by the students of technical and vocational education.

Table 3 presents T-test result for instructors and lecturers responses on entrepreneurship skills needed by technical and vocational education students.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>No. of cases</th>
<th>ᵃ</th>
<th>SD</th>
<th>Df</th>
<th>t-value</th>
<th>t-cal</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship Skills</td>
<td>Instructors</td>
<td>71</td>
<td>4.49</td>
<td>0.79</td>
<td>69</td>
<td>1.96</td>
<td>1.22</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Lecturers</td>
<td>28</td>
<td>3.88</td>
<td>0.68</td>
<td>26</td>
<td>1.96</td>
<td>0.42</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 revealed that t-cal = 1.22 as against t-value = 1.96 at df = 69 and 24 respectively: p < 0.05 on the respondents responses on entrepreneurship skills needed by technical and vocational education students. Since the t-cal is less then the critical value of 1.96, it shows that the result is not significant. This therefore means that there is no significant different in the needed
entrepreneurship skills by technical and vocational education students in Hassan Usman Katsina Polytechnic Katsina state based on the reactions from the instructors and lecturers respondents.

**Research Question 2**

Q What are the measures to be employed to enhance entrepreneurship skills acquisition among technical and vocational education students?

Table 4: Mean rating of Instructors and Lecturers on the possible measures to be employed to enhance entrepreneurship skills acquisition by students of Technical and Vocational Education

<table>
<thead>
<tr>
<th>S/No</th>
<th>Description of items</th>
<th>X</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The goals and objectives of the venture should be clearly defined</td>
<td>3.80</td>
<td>0.73</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Encourage students accept risk and failure</td>
<td>3.72</td>
<td>0.75</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Students should be made to tolerate uncertainty</td>
<td>4.12</td>
<td>0.65</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Encourage Students to be self regulatory and dynamic</td>
<td>4.20</td>
<td>0.63</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Teaching environment should be standard and conducive</td>
<td>4.30</td>
<td>0.60</td>
<td>Agree</td>
</tr>
<tr>
<td>6</td>
<td>Teaching environment should be a replica of the working environment.</td>
<td>4.16</td>
<td>0.63</td>
<td>Agree</td>
</tr>
<tr>
<td>7</td>
<td>Working environment should be conducive</td>
<td>3.68</td>
<td>0.72</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>Specifying and monitoring of performance caretaria for the students.</td>
<td>4.21</td>
<td>0.65</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Employ adequate skillful teachers.</td>
<td>4.02</td>
<td>0.61</td>
<td>Agree</td>
</tr>
<tr>
<td>10</td>
<td>Teach Skills thoroughly.</td>
<td>3.92</td>
<td>0.70</td>
<td>Agree</td>
</tr>
<tr>
<td>11</td>
<td>Moderate students well.</td>
<td>4.12</td>
<td>0.66</td>
<td>Agree</td>
</tr>
<tr>
<td>12</td>
<td>Teaching skills should be practical oriented.</td>
<td>3.83</td>
<td>0.74</td>
<td>Agree</td>
</tr>
<tr>
<td>13</td>
<td>Administrative qualities should be properly taught</td>
<td>3.75</td>
<td>0.72</td>
<td>Agree</td>
</tr>
<tr>
<td>14</td>
<td>Students should be made to carry out feasibility study to see any barrier to success.</td>
<td>3.48</td>
<td>0.68</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 4 above showed that the fourteen (14) measures for the enhancement of students’ acquisition of entrepreneurship skills in technical and vocational education were with mean range of 3.48 to 4.30 showing that all the improvement strategies are needed.

Table 5: This table present t-test results for Instructors and lecturers responses on measures for improving students’ entrepreneurship skills in technical and vocational education

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>No. of cases</th>
<th>X</th>
<th>SD</th>
<th>Df</th>
<th>t-value</th>
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<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship skills</td>
<td>Instructors</td>
<td>71</td>
<td>4.02</td>
<td>0.72</td>
<td>69</td>
<td>1.96</td>
<td>1.10</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td>Lectures</td>
<td>28</td>
<td>3.23</td>
<td>0.63</td>
<td>26</td>
<td>1.96</td>
<td>0.37</td>
<td></td>
</tr>
</tbody>
</table>

From the table above, it was revealed that t-calculated was 1.10 for Instructors and 0.37 for Lecturers as against table – value of 1.96 at df of 69 and 26 respectively; p < 0.05 on the responses by respondents on the measures for enhancing students entrepreneurship skills in technical and vocational education in Hassan Usman Katsina Polytechnic Katsina state. The t-calculated in both groups is less than the t-value indicating that no-significance difference exists between the Instructors and Lecturers.
9. Findings
The following findings were realized from the study:-

1. The respondents Instructors and Lecturers confirmed that the skills found in entrepreneurship were needed by students of Technical and vocational education.

2. Lecturers and Instructors (respondants) agreed that all the suggested enhancement strategies were necessary for the technical and vocational education students in Hassan Usman Katsina polytechnic Katsina state.

3. There was no significant difference between the mean rating of Instructors and Lecturers on the needed skills by students of technical and vocational education students in Hassan Usman Katsina polytechnic Katsina state.

4. There was no significant different between the mean rating of Instructors and Lecturers on the enhancement needs of students of technical and vocational education in entrepreneurship skills.

10. Discussion of Findings
Based on the findings of the study presented in table 2 and 3, it was evident that all the identified entrepreneurship skills were needed by students of technical and vocational education students. This is because; it will help to enhance students self reliance after graduation. This finding was in line with McGrath (19990), who observed that the skills when acquired will greatly enhance the acquisition of entrepreneurship expertise among graduates of technical and vocational education. It also revealed that creative thinking skills will be highly needed by students to enhance their entrepreneurship skills. This agree with Krueger (2000) and Federal Republic of Nigeria (FRN), (2004), when they stated that creativity with regular innovation in understanding all forces at work within the environment would bring in an improvement of entrepreneurship skills in technical and vocational education students.

The findings as presented in table 4 and 5 disclosed that the identified strategies are highly necessary by students of technical and vocational education to enhance their entrepreneurship skills after graduation. This agrees with Hinieleski and Corbet (2005) and Okedi (2012), as they share the same view that strategies such as improvement in work environment, motivation, definition of the goal of enterprise; through teaching of skills, skills to be taught should be practical oriented and students acquisition of the basic skills involved in entrepreneurship cluster.

The findings of the study also shows that differences does not exist in the opinion of Instructors and Lecturers as it relate to the entrepreneurship skills needed by students and strategies to be employed to enhance their quick acquisition of the entrepreneurship skills. This shows that the skills needed and the improvement strategies are all very relevant for the students of technical and vocational education to make them self reliant.

11. Recommendations
Infusion of entrepreneurial education into Technical and vocational education as part of solution to the persistece socio-economic problems will require students while in school gain necessary technical and vocational practical skills, business skills and administrative skills that will help the recipients identify opportunities to exploit and eventually create concrete venture. There is therefore the need for an enhanced entrepreneurial climate at this level of education that will facilitate and encourage the recipients of education thinking creatively, thereby broadening their understanding and knowledge to turn ideas into action. I therefore recommend thus:-
a) Entrepreneurship education should be pursued with vigor in all tertiary institutions where engineering and technical subjects are offered.
b) Students should be encouraged to take entrepreneurship risk.
c) The teaching of technical and vocational education courses should be practical oriented in order to improve students’ creativity and innovations.
d) There should be Training and re-training service for all Technical and Vocational Education Lecturers and Instructors to improve on their effective skills in entrepreneurship education.
e) Students industrial work experience should be revitalized and well sponsored.
f) There should be Conference, seminars and workshops periodically arranged for Lecturers/Instructors and trainee (students) as this will assist them to update their knowledge and skills in the program.
g) Universities, Polytechnics, and Colleges of education should start to commercialize their research findings instead of living them in the shelves.

12. Conclusion
In my opinion entrepreneurship is primarily learned by experience and discovery, therefore entrepreneurial learning should be conceived as a life long process where knowledge is continuously shaped and revised as new experience take place. The survival of individual in a given society is very much dependent on the acquisition of useful skills such as manipulative, practical, creative, personnel management, professional, productive demonstrable, accountability and risk bearing to mention just but a few. The possession of these skills facilitates individual’s employability into any viable establishment reducing redundancy and unemployment problems within our youth. The Skills acquired by our youth can be enhanced upon by technical and vocational educators, by taking the pain to define the goal of the venture, making the teaching environment a replica of the working environment, motivating the learners, installing administrative qualities in the students, students made to tolerate uncertainty and specifying the performance criteria for the students. Lecturers and Instructors responses on the entrepreneurship skills needed by TVE students and the effective measures to be adopted for their acquisition were not very significant. To this end, the incorporation of TVE programmes into our tertiary institution is very paramount because of the economic contribution and self employment it offers together with the self reliant status provided to our students after graduation.

References


