Attitude of College of Education Science Students Towards Entrepreneurial Skills Acquisition

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Abstract: The need to develop one’s character in order to sustain the Nigeria economy through education and entrepreneurial skills has been a great concern to the country as a whole and the academicians in particular. This is because no nation can grow above the quality of its education. Also, entrepreneurial skills acquisition has been recognized as a necessity for bringing back the glory of Nigeria economy. As a result, this paper investigated the attitude of College of Education (Technical) Lafiagi science students towards acquisition of entrepreneurial skills. The study is a descriptive research of the survey type. The data for the study was obtained from 388 respondents using researcher designed questionnaire known as science students’ attitude towards acquisition of entrepreneurial skills questionnaire tagged SATAESQ. The data gathered from the respondents was analysed using factor analysis. The exploratory form of factor analysis that is, principal components analysis was employed. Findings from the study revealed that out of the 23 questionnaire items in the instrument only 15 were factorable into five factors which were: positive attitude towards importance of entrepreneurial skills; Positive attitude towards acquisition of entrepreneurial skills; Poor methods of teaching entrepreneurship; Readiness to acquire entrepreneurial skills and train their pupils in future and Inadequate knowledge of entrepreneurship with their percentage variance as follows 13.96%; 12.53%; 10.31%; 10.15% and 9.44% respectively. It was therefore recommended among others that College of Education science students positive attitudes towards both importance of entrepreneurial skills and acquisition of the skills should be encouraged by empowering them with all necessary facilities.

Keywords: Attitude, Entrepreneurial Skills, Character Development, College of Education, & Sustainable Economy.
1. Introduction

It has become an established fact that for a country to develop economically there is the need to imbibe the culture of entrepreneurship. Entrepreneurship has been described as the engine of economic growth and catalytic agent for expanding and promoting productions in every aspect of life all over the world (Yusuf & Albanawi, 2016). Entrepreneurship has also been described as a driving force for starting business, mobilization of human, financial and physical resources for the development of enterprises and creation of jobs (Topxhiu, n. d.). Toma, Grigore and Marinescu (2014) defined entrepreneurship as a process which operates under five conditions of newness such as new goods, new production methods, new market, new sources of materials or new organization and that an entrepreneur is an innovator, agent of change and coordinator of productions. One can easily conclude that entrepreneurship is a process which results to economic improvement that is being carried out by entrepreneurs. In order to sustain economy of a country such as Nigeria, there is the need to diversify the economy towards entrepreneurship.

Topxhiu (n. d.) observed that entrepreneurial skills are the pillar which entrepreneurship and enterprises depend on and that entrepreneurial behavior is traceable to individuals’ entrepreneurial attitudes, skills and aspirations. Usman, Usman and Idrissa (2013) were also of the opinion that students’ ability to achieve entrepreneurial goals has much to do with their attitude towards entrepreneurial policy. Kissi, Somiah and Ansah (2015) also reported that attitude, skills and knowledge are the entrepreneurial competencies that are being demonstrated by entrepreneurs. This can equally be referred to as character development required to sustain the country economy. There is no doubt that in improving entrepreneurial skills of students generally and that of science students in specific requires knowing the students’ attitude towards acquisition of the skills. In order to make use of entrepreneurial skills as a diversifying tools for revamping the economy of the country.

Attitude has been described as tendency to react positively or negatively towards a person, object or circumstance (Singh, 2011). Mcleod (2014) citing Hogg and Vaughan (2005, p150) observed that “attitude is a relatively enduring organisation of beliefs, feelings and bahavioural tendencies towards socially significant objects, groups, events or symbols. This means that the attitude of students towards entrepreneurial skills acquisition is the phenomenon which required to be investigated. The components of attitude are categorized into three which are as follows:

a. Emotional or Affective – this has to do with ones’ feelings about objects, phenomenon etc. which can be positive, negative or neutral. For example, I like entrepreneurship.

b. Bahavioural or conative – this has to do with tendency of an individual to behave in a particular way towards an object or phenomenon. For example, I will like to study entrepreneurship as a course.

c. Informational or cognitive – this is the beliefs and information one has about the object or circumstance.

For example, acquisition of entrepreneurial skills is difficult (Singh, 2011; Mcleod, 2014)

Looking at the components of attitude, it is the best way in which enquiry about students’ ideas of entrepreneurial skills can be investigated in order to know the necessary things to put in place for the acquisition of the skills. In a like manner Adegoke (2012) identified attitude as one of the variable which cannot be measured using physical instrument such as meter rule and chemical balance which are used for measuring length and mass respectively. Instead they are regarded as unifying constructs that characterise responses to related group of variables.

Considering the series of entrepreneurial skills in the country, one can easily submit that they are more of science oriented than any other field of knowledge. For example, soap making is theoretically based in chemistry as a science discipline which the process is known as saponification. Also fishery, poultry farming, crop farming are all rooted in agricultural science. The acquisition of knowledge about horticulture can be found in biology while production of solar light as a form of entrepreneurial skill can also be found in the scientific knowledge of Physics etc. there is no how scientific knowledge can be ruled out in entrepreneurial skill acquisition for effective character development as regard sustainability of the economy. Hence, for economic sustainability to be achieved there is need for development of character towards it. Since entrepreneurship has been identified as engine for driving economic growth Yusuf and...
Albanawi, (2016), determination of students’ attitude towards entrepreneurial skills acquisition will go a long way in promoting character development as regards sustaining the economy. Due to the double roles played by students in Colleges of Education students in the promotion of national development: their attitude towards acquisition of entrepreneurial skills is worth investigating. Firstly, they serve as foundation layer of basic science education since according to FRN (2014) the minimum certificate for teaching at the basic level of education is the NCE certificate. Secondly they serve as feeder for faculty of education at university for further promotion of scientific knowledge.

1.1 Statement of the problem

There is the belief that for entrepreneurship to play its role in sustaining the Nigeria economy, Colleges of Education science students’ attitude towards entrepreneurial skills is of utmost importance. For the purpose of developing their character for sustainable development. In an effort to establish the relationship between entrepreneurship and economic sustainability of a country researchers have carried out series of research. To this effect, Usman et al. (2013) while examining the perception and attitude of students of tertiary institutions towards entrepreneurship education in Nigeria and findings from the study revealed that majority of the respondents believes that entrepreneurial is a good policy which proffer solution to problem of unemployment. They also believed that it will promote industrialization, innovation and technology but probability of achieving this is low due to poor policy and environmental factors. Kissi et al. (2015) carried out their study towards entrepreneurial learning competencies: The prospective of built environment students and findings of the study revealed highlights of competencies factors that have great impact on entrepreneurs the competencies factors.

These two studies were carried out involving students from both university and polytechnic tertiary institutions. The present study was carried out on attitude of college of education science students towards entrepreneurial skills acquisition: character development for sustainable economy. The present study is thought to be necessary since according to the National Commission for Colleges of Education NCCE (2012) minimum standard the Colleges of Education science students are expected to offer a general course on entrepreneurship. It is necessary to determine the attitude of these students towards acquisition of entrepreneurial skills which serves as prerequisite for achieving success in character development for sustaining the economy.

1.2 Purpose of the Study

The major purpose of this study was to investigate the college of education science students’ attitude towards acquisition of entrepreneurial skills. Specifically, the study investigated the following:

a. the number of factors the variables on attitude of the students towards acquisition of entrepreneurial skills can be grouped;
b. the underlying factors the variables on attitude of the students towards acquisition of entrepreneurial skills are grouped to; and
c. The variables that is being loaded under each factor

1.3 Research Questions

Answers were sought for the following research questions:
a. how many underlying factors the variables on attitude of the students towards acquisition of entrepreneurial skills are being grouped?
b. what are the underlying factors the variables on attitude of the students towards acquisition of entrepreneurial skills are grouped to?
c. What are The variables that is being loaded under each factor?
2. Methodology

This study is a descriptive research of the survey type. Descriptive research report things as they are being found and since this is what is expected of this study this is thought to be appropriate according to Cohen, Manion and Morrison (2011). Three hundred and eighty-eight College of Education (technical) Lafiagi students were involved in the study. The students were 300 level students from school of Science in the college studying different combinations of science such as Biology/Chemistry, Biology/Integrated science, Biology/ computer etc. The instrument for the study is researcher designed questionnaire known as science students’ attitude towards acquisition of entrepreneurial skills questionnaire tagged SATAESQ. The instrument is five point likert scale of strongly agree, agree, neutral, disagree and strongly disagree. The instrument consists of 23 items which the students were expected to respond to each of the attitudinal questionnaire items.

The face and content validity of the instrument was determined by giving it to two experts in the field of entrepreneurship. The data gathered from the respondents was analysed using factor analysis. The exploratory form of factor analysis that is, principal components analysis. According to Adegoke (2012) factor analysis is a statistical technique used to determine relative small number of factors that can be used to represent relationships among set of many interrelated variables. Also Cohen, Manion and Morrison defined factor analysis as a method of grouping variables which have something in common. It is a process which enables a researcher to take a set of variables and reduce them to a small number of underlying factors which account for as many variables as possible. This is thought to be appropriate as attitude is a variable which cannot be measured by using a single physical instrument instead unifying constructs that characterize the variable are used. The 23 items in the questionnaire are the variables which are being grouped into underlying factors after the principal components analysis was carried out.

3. Result

The minimum amount of data for factor analysis was satisfied with total sample size of 388 and average of 16 cases per variable. The factorability of the 23 items was determined using correlation matrix. 15 items out of the 23 items have correlation of at least 0.3 with another item. The eight items having less than .3 in the correlation matrix were removed before carrying out the factor analysis. Also Kaiser-Meyer-OLKIN measure of sampling adequacy was 0.71 which is greater than the recommended value of 0.6 by Cohen, Manion and Morrison (2011) while the Bartlett’s test of sphericity was found to be significant ($\chi^2 (105) = 967.24, p< 0.5$). Finally, the 15 items communalities were greater than .4 indicating that they shared some common variance with other items. As a result of this factor analysis was conducted with only 15 items.

In order to obtain significant clusters of variables principal components analysis with varimax rotation and Kaiser Normalization were conducted. Eigen values equal to or greater than 1 were extracted with regard to the 15 variables used. The eigen values revealed five factors having values greater than or equal to one. The first factor explained 13.96% of the variance, the second factor explained 12.53% of the variance, while third and fourth factors explained 10.31% and 10.15 variance each and the fifth factor explained 9.44% variance. The cumulative variance explained by the five factors is 56.39%.

**Research Question 1:** How many underlying factors the variables on attitude of the students towards acquisition of entrepreneurial skills are being grouped?

The variables on attitude of science students towards entrepreneurial skills acquisition are grouped into five underlying factors after using orthogonal rotation.

**Research Question 2:** What are the underlying factors the variables on attitude of the students towards acquisition of entrepreneurial skills are grouped into?

The underlying factors which the variables are grouped into are shown in Table 1. The percentage variance of each of the factor were also included. The five factors accounted for a total of 56% of the total variance explained in the study which is thought to be appropriate according to Cohen et al., (2011). This result can be seen in Table 1:
Research Question 3: What are the variables that are being loaded under each factor?

All the variables which possess factor loading that are either equal to or less than 0.422 are considered appropriate for each of the factors they are being loaded unto. Factor loading is the correlation of original variable with a factor, it is used to determine how important a variable is to a factor. Factor 1 to 5. This is shown in Table 2.

Table 1: Factors the Variables are being group into with their percentage variance

<table>
<thead>
<tr>
<th>S/NO</th>
<th>Factors</th>
<th>% variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>positive attitude towards importance of entrepreneurial skills.</td>
<td>13.96</td>
</tr>
<tr>
<td>2</td>
<td>Positive attitude towards acquisition of entrepreneurial skills.</td>
<td>12.53</td>
</tr>
<tr>
<td>3</td>
<td>Poor methods of teaching entrepreneurship</td>
<td>10.31</td>
</tr>
<tr>
<td>4</td>
<td>Readiness to acquire entrepreneurial skills and train their pupils in future</td>
<td>10.15</td>
</tr>
<tr>
<td>5</td>
<td>Inadequate knowledge of entrepreneurship</td>
<td>9.44</td>
</tr>
</tbody>
</table>

Table 2: The Nine Factors and the Variables Loaded unto them

<table>
<thead>
<tr>
<th>Factor</th>
<th>Variable</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>(22) There is the need to include practical oriented entrepreneurial skill in the college curriculum</td>
<td>0.738</td>
</tr>
<tr>
<td></td>
<td>(14) If I am being trained in any entrepreneurial skill I will like to be putting it into practice</td>
<td>0.650</td>
</tr>
<tr>
<td></td>
<td>(20) I belief entrepreneurial skill acquisition can be used to develop economic growth of Nigeria</td>
<td>0.614</td>
</tr>
<tr>
<td></td>
<td>(23) For one to be successful in Nigeria one need to acquire at least one entrepreneurial skill</td>
<td>0.595</td>
</tr>
<tr>
<td>Factor 2</td>
<td>(9) Soap production is an example of entrepreneurial skill that I wish to acquire</td>
<td>0.781</td>
</tr>
<tr>
<td></td>
<td>(11) I wish to acquire training on any material that can be produced locally as an entrepreneurial skill acquisition</td>
<td>0.706</td>
</tr>
<tr>
<td></td>
<td>(17) I will like a particular skill as my future career</td>
<td>0.617</td>
</tr>
<tr>
<td>Factor 3</td>
<td>(13) I was taught entrepreneurial skill using chalk and talk method as a result it is not interesting</td>
<td>0.717</td>
</tr>
<tr>
<td></td>
<td>(12) My lecturer did not introduce any entrepreneurial skill to me practically making it difficult for me to understand</td>
<td>0.615</td>
</tr>
<tr>
<td></td>
<td>(21) Acquisition of entrepreneurial skills are challenging</td>
<td>0.550</td>
</tr>
<tr>
<td>Factor 4</td>
<td>(10) Crop production is another type of entrepreneurial skill I have interest in</td>
<td>0.779</td>
</tr>
<tr>
<td></td>
<td>(18) I am ready to learn any entrepreneurial skill while I am in the college</td>
<td>0.442</td>
</tr>
<tr>
<td></td>
<td>(19) I will like to train my pupils in future any entrepreneurial skill I acquired</td>
<td>0.427</td>
</tr>
<tr>
<td>Factor 5</td>
<td>(4) I don’t know any entrepreneurial skill</td>
<td>0.812</td>
</tr>
<tr>
<td></td>
<td>(7) The topics being taught in entrepreneurship has nothing to do with the skills</td>
<td>0.773</td>
</tr>
</tbody>
</table>
4. Discussion

Findings from the study revealed that there are five underlying factors in which the attitude of the Colleges of Education students can be grouped into which are as follows: (1) positive attitude towards importance of entrepreneurial skills, Positive attitude towards acquisition of entrepreneurial skills, Poor methods of teaching entrepreneurship, Readiness to acquire entrepreneurial skills and train their pupils in future and Inadequate knowledge of entrepreneurship. These findings are in agreement with the findings of Usman et al. (2013) whose finding revealed that majority of the respondents believed that entrepreneurial is a good policy which proffers solution to problem of unemployment. They also believed that it will promote industrialization, innovation and technology but probability of achieving this is low due to poor policy and environmental factors. This means that irrespective of types of tertiary institution students have the same attitude towards entrepreneurial skills and towards acquisition of the skills and they were also aware of the problems imitating against the acquisition of the skills. The findings are also in agreement with that of Kissi et al. (2015) whose finding revealed that entrepreneurial attitude, knowledge of entrepreneurship and entrepreneurial skill are the competencies factors that influence entrepreneurs in dealing with task and problems of entrepreneurial learning. The three competent factors revealed by Kissi et al. (2015) are also present in the five underlying factors revealed by the present study.

5. Conclusion and Recommendations

It can be concluded from this study that the five underlying factors revealed from this study are the main factors in which the attitude of College of Education science students can be grouped into. These factors are necessary for their utmost performance in the acquisition of entrepreneurial skills for them to acquire entrepreneurial skills and contribute their own quota to sustaining of the Nigeria economy. Also possession of positive attitude towards entrepreneurial skills acquisition of the students may enhance their spirit of character development for sustainable economy. It could also be observed that the method of teaching used in teaching the students were not appropriate which resulted into inadequate knowledge of entrepreneurship. The following recommendations are put forward based on the findings:

a. Since science students in the College of Education have positive attitude towards both importance of entrepreneurial skills and acquisition of the skills. The students should be encouraged to make good use of these attitudes by empowering them with all necessary facilities that will promote character development required in sustaining the economy.

b. Poor method of teaching is another underlying factor identified in the study the method of teaching entrepreneurial skills should be improved on by the lecturers as act of promoting character development for sustainable economy by the students.

c. the students are ready to acquire entrepreneurial skills and use it in the future, the students should be given enough practical and theoretical knowledge for their effective performance of their job in the future required for character development needed in sustaining the economy.

6. References


NCCE (2012). Nigeria Certificate in Education Minimum Standard


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