Pakistan Journal of Social Sciences 10 (2): 76-82, 2013
ISSN: 1683-8831

Entrepreneurial Potentials and Skills Acquisition by Undergraduate Students: A Case Study of Tertiary Institutions in Delta State, Nigeria

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Abstract: The objective of the study was to investigate the entrepreneurial potentials and skills acquisition among undergraduate students of tertiary institutions in Delta State. The population comprised all undergraduate students of Delta State tertiary institutions. The sample of 302 students was selected using stratified sampling technique. The reliability coefficient value obtained was 0.75 using test re-test methods. Three research questions guided the study and three hypotheses were tested at the alpha level of 0.05. The respondents agreed on 30 characteristics as desirable amongst which included ability to initiate ideas, set appropriate goals for enterprise and persistent in pursuing set objectives. Out of 30 entrepreneurship skills, respondents agreed that they acquired fourteen (46.67%) and also agreed on 23 skills required to prepare them for future life which included livestock rearing skills, soap/detergent making skills and computer repairs/programming skills. The results also revealed a significant difference between the perception of male and female students on vocational and technical skills and agricultural/agro-allied skills acquisition among undergraduate students. Two major findings were that working extra hours was considered as an undesirable trait for potential entrepreneur and there was lack of entrepreneurship skills in tertiary institutions. Recommendations were made based on the findings of the study.

Key words: Entrepreneurial potentials, entrepreneurial skills acquisition, entrepreneurs, undergraduate students, Nigeria

INTRODUCTION

The practice of relying on government to provide white-collar jobs for graduates can no longer be encouraged. It takes an individual equipped with solid entrepreneurial skills and knowledge to survive in this era of unemployment. Therefore, in ensuring undergraduates development of personal skills and qualities which will make them gain knowledge and understanding of the way in which the economy works and reacts to market forces, the provision of entrepreneurship education and training becomes very significant. Boroffice (2008) stated that the Federal Government directed all institutions of higher learning in Nigeria to introduce the study of entrepreneurship as a compulsory course for all students, irrespective of the disciplines with effect from the 2007/2008 academic session but the study by Osakwe (2011) still showed lack of entrepreneurship skills in tertiary institutions, in Nigeria.

The role of this entrepreneurship education in the march towards the development and modernisation of this nation cannot be ignored because the knowledge gained from entrepreneurial skills is geared towards self reliance cum wealth creation after graduation: job generation, poverty eradication and value re-orientation. Some of the skills expected to be possessed by science and technology undergraduate students (potential entrepreneurs) are:

Educational skills/services: Operating day care centres, nursery/primary schools, extra-mural lessons, computer schools, etc.

Agricultural/agro-allied skills: Cassava/yam flour production, fishing, farming, fruit processing, garri, production, poultry/piggery farming, snail-rearing, etc.

Professional skills: Graphic art and design, architectural practice, legal services, medical practice, etc.

Catering/confectionery skills: Cake making, pastry production, ice block production, catering school, etc.

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Printing and publishing skills: Graphic designing, diary/calendar production, magazine publishing, book binding, stickers' production, notebook and envelope production, etc.

Fashion and textile skills: Tailoring services, weaving, fashion designing, beads production, wallet production, flower vase production, etc.

Soap/detergent making skills: Soap production, detergent production, laundry bleach production, car wash soap production, etc.

General skills: Mat making, furniture making, painting, carpentry, dry cleaning, pipe fitting/plumbing, auto-mechanic, welding/fabrication, electrical/electronics, vulcanizing, block making , computer digital programming skills, etc. (Women and Magazine, 2010).

Entrepreneurship education prepares people especially youths to be responsible, enterprising individuals who become entrepreneurs or entrepreneurial thinkers and who contribute to economic development. According to Etele (2007), entrepreneurship education is not just only about teaching someone to run a business it is also about inculcating in an individual creative thinking and promoting a strong sense of self-worth and accountability. It is all about training someone to be self-employed and be able to generate employment for others. Today, the high level of unemployment in the country is because of lack of entrepreneurial skills and a lot of undergraduates only think about white-collar jobs or what their certificates can offer them on graduation.

They forget that the best job for them is self-employed jobs which will give satisfaction or employers jobs of labour that will impact lives in their generation hence the need to embrace entrepreneurship education is very essential. Researchers defined entrepreneurship as the process of venturing, undertaking and assuming risks involving creative skills associated with the organizing, directing and managing of a business enterprise (Eboh, 2009; Egboh, 2009; Onwuka and Ile, 2006). Entrepreneurship education and training is about the development of personal skills and qualities so that individuals gain knowledge and understanding of the way in which the economy works and reacts to market forces. This involves ways and methods to the development of creativity, problem solving, taking calculated risks, time management, communication skills, leadership skills which can lead to improved employment prospects. According to Wikipedia entrepreneurship education seeks to provide student with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. It can also be defined as an organised, formal conveyance of entrepreneurial knowledge and skills which includes creativity, sense of initiative, innovation and risk acceptance as well as the ability to plan and manage projects in order to achieve its objectives.

Nell and Badenhorst (2003) observed that personality traits such as initiative and independent spirit make individuals to find alternative ways of earning a living for themselves. These qualities are appropriate for undergraduate students who are expected to be self employed, self-reliance and self-sufficient after graduation. Also, potential in this study means traits or characteristics while entrepreneur is a person who creates ventures and runs a business. When people acquire skills especially in the ability to take decision make commitment take risk, motivate, solve financial problems, understand family situations be self confident, radiate energy and drive, generate task orientation, leadership and personal responsibilities that are very important in the life of a potential entrepreneur they would he able to establish enterprises and manage them well (Lynch, 2000). Individuals who manifest these qualities can assess whether a person can be a successful entrepreneur. It can be inferred that when vocational technical teacher education students are fully equipped to exploit their personality traits then there will be assurance that they will be self employed after graduation.

This is because they would have become competent enough to visualize and recognize employment opportunity. These traits are the qualities a teacher should encourage in undergraduate students for them to be able to start up an enterprise after graduation. In the tertiary institutions little appears to have been provided as direct entrepreneurship education and training for students although, those pursuing courses in vocational and technical courses science, agricultural and business faculties have some background. There is also lack of entrepreneurship spirit among undergraduates whose primary focus is basically on white collar job after graduation. Therefore, an attempt was made to determine what constitute entrepreneurial potentials and entrepreneurial skills needed by undergraduate students. The question the study sought to answer is: what are the characteristics of potential entrepreneur and entrepreneurial skills required/acquired by undergraduate students that could stimulate them into job creation?

To guide the study, the following research questions were answered:

- What are the students' perceptions on the characteristics that determine potential entrepreneurs in tertiary institutions?
- What are the students' perceptions of entrepreneurial skills required by undergraduates in tertiary institutions?
- What are the students' perceptions of entrepreneurial skills acquired by undergraduates in tertiary institutions?

To guide the study, the following null hypotheses were also tested at 0.05 level of statistical significance:

H_{o1}: There is no significant difference in the mean responses of male and female students on the characteristics that determine entrepreneurial potential in tertiary institutions.

H_{o2}: There is no significant difference between the perception of male and female students on the vocational and technical skills acquisition among undergraduate students in tertiary institutions.

H_{o3}: There is no significant difference between the perception of male and female students on the agricultural/agro-allied entrepreneurial skills acquisition among undergraduate students in tertiary institutions.

MATERIALS AND METHODS

The survey method was adopted for this study. The study was descriptive in nature because it sought to establish the difference between the dependent and independent variables of entrepreneurship skills acquisition of undergraduate students. The population of the study comprised of all the students of Delta State tertiary institutions. Three research questions were asked and answered and three research hypotheses were formulated and tested at 0.05 alpha level of significance. The sample was made up of three hundred and two students which were selected using the stratified random sampling technique. The selection was restricted to only education students of the two colleges of education (Warri and Agbor) and Faculty of Education, Delta State University. The questionnaire was used to collect data and this was divided into three sections. Section A sought information about the bio-data of respondents while section B sought information on various entrepreneurship potentials and section C sought information on various entrepreneurship skills. In section B, a three point Likert scale of very desirable, desirable and undesirable was used to measure the 31 items in the instrument while in section C a four point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was used to measure the 30 items in the instrument.

The face and content validity of the instrument was established. The reliability of the instrument was tested using the test re-test method to establish the stability of the instrument. The reliability coefficient value obtained was 0.75. The data collected were analysed using the t-test statistical tool. The alpha level of significance was set at 0.05. For this study, any item with a mean response of 2.5 and above was accepted as a desirable trait/skills required while responses below 2.5 were considered as undesirable/skills not required.

RESULTS

The presentation of the results of the analysis of the data collected follows the order of the research question and hypothesis.

Research question 1: What are the students' perceptions on the characteristics that determine potential entrepreneurs in tertiary institutions?

Table 1 showed that item 30 with the lowest grand mean of 2.36 was the decision point of 2.50. Thus, the ability to work extra hours always considered by the respondents as an undesirable character is not a determinant of entrepreneurial potentials. However, the remaining 30 items were rated as desirable. Also, the cumulative mean average is 4.15 as indicated in the Table 1.

Research question 2: What are the students' perceptions of entrepreneurial skills acquisition needed by undergraduates in tertiary institutions?

Table 2 shows that out of thirty entrepreneurship skills listed the respondents agreed that twenty three entrepreneurship skills are the ones needed by the students to prepare them for future life. This is because the mean ratings of the 23 (76.67%) entrepreneurship skills are above 2.50 the acceptance level. Also, the cumulative mean average is 2.79 as indicated in the Table 2.

Research question 3: What are the students' perceptions of entrepreneurial skills acquisition needed by undergraduates in tertiary institutions?

Table 3 reveals that out of thirty entrepreneurship skills listed, the respondents agreed that 14 (46.67%) entrepreneurship skills with mean ratings above 2.50 acceptance levels are possessed by undergraduate students in tertiary institutions. The other 16 (53.33%)

Table 1: Mean response of students on the characteristics that determine potential entrepreneur

Characteristics that indicate entrepreneurial potentials	Mean	Remark
Recognize business opportunities	4.53	Desirable
Be able to initiate ideas	4.39	Desirable
Demand for efficiency and quality	4.16	Desirable
Set appropriate goals for enterprise	4.31	Desirable
Be persistent in pursuing set objectives	4.04	Desirable
Be persuasive and networking	4.05	Desirable
Take reasonable risks	3.62	Desirable
Take charge in any business venture	3.62	Desirable
Get along well with others	4.11	Desirable
Take decisions promptly	4.14	Desirable
Accept responsibility for one's actions	3.84	Desirable
Cultivate competitive spirit	3.88	Desirable
Accept responsibility for success or failure	4.04	Desirable
Demonstrate self confidence	4.29	Desirable
Be able to deal to deal with negative trends loses	3.96	Desirable
Adapt to the changing situations	4.06	Desirable
Be innovative (do things in new ways)	4.23	Desirable
Judge the abilities and skills of others	3.95	Desirable
Save profit for expansion	4.45	Desirable
Take independent actions	4.03	Desirable
Demonstrate the drive to achieve	4.17	Desirable
Motivate others to achieve	4.27	Desirable
Demonstrate will power and self discipline	4.13	Desirable
Demonstrate resourcefulness in business	4.07	Desirable
Maintain high level of integrity	4.25	Desirable
Be able to work under pressure	3.90	Desirable
Become future oriented	4.20	Desirable
Be hard working	4.31	Desirable
Accept and face challenges	4.18	Desirable
Work extra hours always	2.36	Undesirable
Demonstrate imaginative and creative ideas	4.19	Desirable
Cumulative average mean	4.15	-

Table 2: Mean ratings of entrepreneurship skills required by undergraduate students

Items	Mean	Remarks
Welding/Fabrication skills	3.33	Agree
Ice block production skills	2.12	Disagree
Beads production skills	2.65	Agree
Cassava/Yam flour production skills	2.54	Agree
Architectural practice skills	2.88	Agree
Vulcanizing skills	2.16	Disagree
Farming skills	3.20	Agree
Soap/Detergent making skills	3.60	Agree
Barbing skills	2.32	Disagree
Auto-mechanic skills	2.62	Agree
Furniture skills	2.89	Agree
Catering skills	2.22	Disagree
Decoration skills	2.73	Agree
Printing/Publishing skills	3.20	Agree
Fruit processing skills	2.92	Agree
Mat making skills	2.42	Disagree
Car washing skills	2.33	Disagree
Hair making skills	2.48	Disagree
Shoe making skills	2.51	Agree
Laundering skills	2.96	Agree
Telecommunication skills	2.98	Agree
Ceramic making skills	2.86	Agree
Livestock rearing skills	2.66	Agree
Garment making skills	2.78	Agree
Pipe fitting/Plumbing skills	2.90	Agree
Electrical/Electronics skills	3.55	Agree
Computer repairs/Programming skills	3.66	Agree
Marketing consulting skills	2.77	Agree
Graphic art/Design skills	2.98	Agree
Dye production skills	2.74	Agree
Cumulative average mean	2.79	-

Table 3: Mean ratings of entrepreneurship skills acquired by undergraduate students

Items	Mean	Remarks
Welding/Fabrication skills	1.00	Disagree
Ice block production skills	2.66	Agree
Beads production skills	1.30	Disagree
Cassava/Yam flour production skills	3.24	Agree
Architectural practice skills	1.80	Disagree
Vulcanizing skills	2.00	Disagree
Farming skills	3.38	Agree
Soap/Detergent making skills	2.74	Agree
Barbing skills	2.68	Agree
Auto-mechanic skills	1.11	Disagree
Furniture skills	1.95	Disagree
Catering skills	3.10	Agree
Decoration skills	2.48	Disagree
Printing/Publishing skills	1.37	Disagree
Fruit processing skills	2.54	Agree
Mat making skills	2.38	Disagree
Car washing skills	2.60	Agree
Hair making skills	2.56	Agree
Shoe making skills	1.48	Disagree
Laundering skills	3.10	Agree
Telecommunication skills	1.33	Disagree
Ceramic making skills	1.39	Disagree
Livestock rearing skills	2.88	Agree
Garment making skills	2.76	Agree
Pipe fitting/Plumbing skills	1.44	Disagree
Electrical/Electronics skills	1.41	Disagree
Computer repairs/Programming skills	1.32	Disagree
Marketing consulting skills	2.65	Agree
Graphic art/Design skills	2.16	Disagree
Dye production skills	2.70	Agree
Cumulative average mean	2.25	-

Table 4: t-test analysis of the mean responses of male and female students on the characteristics that determine entrepreneurial potential

Variables	N	X	SD	df	t-cal	t-crit	α level	Decision
Male	151	18.32	4.56	300	-8.83	1.96	0.05	Not significant
Female	151	24.77	7.47	-	-	-	-	(Retained)

entrepreneurship skills with mean ratings below 2.50 are not possessed by undergraduate students in tertiary institutions. The cumulative average mean of 2.25 is below the decision rule 2.50 showing lack of entrepreneurial skills possessed by students.

Hypothesis 1: There is no significant difference in the mean responses of male and female students on the characteristics that determine entrepreneurial potential in tertiary institutions.

Table 4 shows that the t-calculated value of -8.83 was less than t-critical value of 1.96 hence the null hypothesis was retained. This shows a non significant difference between the perception of male and female students on the characteristics that determine entrepreneurial potential in tertiary institutions.

Hypothesis 2: There is no significant difference between the perception of male and female students on the vocational and technical entrepreneurial skills acquisition among undergraduate students in tertiary institutions.

Table 5: t-test analysis of the perception of male and female students on the vocational and technical entrepreneurial skills acquisition

Variables	N	X	SD	df	t-cal	t-crit	α level	Decision
Male	151	21.97	6.15	300	8.12	1.96	0.05	Significant
Female	151	16.42	5.17	-	-	-	-	(Rejected)

Table 6: t-test analysis of the perception of male and female students on the agricultural/agro allied entrepreneurial skills acquisition

Variables	N	X	SD	df	t-cal	t-crit	α level	Decision
Male	151	18.32	5.530	300	7.55	1.96	0.05	Significant
Female	151	13.48	5.608	-	-	-	-	(Rejected)

As indicated in Table 5, the t-calculated value of 8.12 was greater than the t-critical value of 1.96. Hence, the null hypothesis was rejected. This shows that there was a significant difference between the perception of male and female students on the vocational and technical entrepreneurial skills acquisition among undergraduate students in tertiary institutions.

Hypothesis 3: There is no significant difference between the perception of male and female students on the agricultural/agro-allied entrepreneurial skills acquisition among undergraduate students in tertiary institutions.

In Table 6, the t-calculated value of 7.55 was greater than the t-value of 1.96. Hence, the hypothesis was rejected. This shows that there was a significant difference between the perception of male and female undergraduate students on the agricultural/agro allied entrepreneurial skills acquisition among undergraduate students in tertiary institutions.

Findings: The following are the major findings of the study. Thirty characteristics that determine entrepreneurial potentials were considered as desirable which are:

- Be able to initiate ideas
- Demand for efficiency and quality
- Set appropriate goals for enterprise
- Be persistent in pursuing set objectives
- Be persuasive and networking
- Take change in any business venture
- Accept responsibility for one's actions
- Accept full responsibility for success or failure
- Be able to deal with negative trends loses
- Be innovative (do things in new ways)
- Judge the abilities and skills of others
- Demonstrate will power and self discipline
- Demonstrate resourcefulness in business
- Maintain high level of integrity
- Demonstrate imaginative and creative ideas
- Take reasonable risks
- Get along well with others
- Take decisions promptly
- Cultivate competitive spirit
- Demonstrate self confidence
- Adapt to the changing situations
- Save profit for expansion
- Accept and face challenges
- Be hard working
- Become future oriented
- Be able to work under pressure
- Motivate others to achieve
- Demonstrate the drive to achieve
- Take independent actions
- Recognize business opportunitie

The ability to work extra hours was considered unacceptable in this study. Twenty three entrepreneurship skills are the ones required by the students to prepare them for future life which are: Welding/fabrication skills, beads production skills, cassava/Yam flour production skills, architectural practice skills, farming skills, soap/detergent making skills, auto-mechanic skills, furniture skills, decoration skills, printing/publishing skills, fruit processing skills, shoe making skills, laundering skills, telecommunication skills, ceramic making skills, livestock rearing skills, garment making skills, pipe fitting/plumbing skills, electrical/ electronics skills, computer repairs/programming skills, marketing consulting skills, graphic art/design skills and dye production skills.

Out of thirty entrepreneurship skills listed, the respondents agreed that they have only acquired 14 (46.67%) entrepreneurship skills.

There was a significant difference between the perception of male and female students on the vocational/technical and agricultural/agro allied entrepreneurial skills acquisition among undergraduate students in tertiary institutions.

DISCUSSION

The findings of this study with regards to the characteristics that determine potential entrepreneurs indicate that 30 personality potentials that undergraduate students are expected to manifest were rated as very desirable. This finding conforms to the assertion of Carre and Thurik who confirmed that entrepreneurship is essentially a behavioural characteristic of a person.

Table 2 showed that out of thirty entrepreneurial skills listed, the respondents confirmed that twenty three skills are required by the undergraduates for self-reliance.

The six other skills which include ice block production skills, vulcanizing skills, barbing skills, catering skills, mat making skills, car washing skills and hair making skills were not applauded as entrepreneur skills required by these undergraduate. The reason for the rejection may be due to the demeaning nature of the job.

Table 3 showed that out of thirty entrepreneurial skills listed the respondents confirmed that only fourteen skills are acquired by undergraduate students showing lack of entrepreneurial skills possessed by students which supports the study by Osakwe (2011).

The study revealed that there was a significant difference between the perception of male and female students on the need for vocational and technical entrepreneurial skills acquisition among undergraduates in tertiary institutions. This result revealed that both male and female undergraduate students differ in their perception of the acquisition of agricultural/agro-allied entrepreneurial skills. The reason may be due to the masculine nature of the job which contradicts the study by Osakwe (2011) who found a significant difference in students' perception in vocational and technical entrepreneurial skills acquisition.

The study also revealed that there was a significant difference between the perception of male and female undergraduate students on the need for agricultural/agro-allied entrepreneurial skills acquisition among undergraduate students in tertiary institutions. The result revealed that male and female students differ in their perception of the acquisition of agricultural/agro-allied entrepreneurial skills. The reason may also be due to the masculine nature of the job.

CONCLUSION

The following conclusions were made based on the findings that:

- There is a non significant difference between the perception of male and female students on the characteristics that determine entrepreneurial potential in tertiary institutions
- There was a significant difference between the perception of male and female students on the vocational and technical entrepreneurial skills acquisition among undergraduate students in tertiary institutions
- There was a significant difference between the perception of male and female undergraduate students on the agricultural/agro allied entrepreneurial skills acquisition among undergraduate students in tertiary institutions

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

- Tertiary institutions lecturers should encourage and stimulate students to exude the characteristic that makes a person potential entrepreneur
- Potential entrepreneur should be discouraged to work extra hours which may lead to unwanted stressors
- Adequate publicity on the importance of acquiring entrepreneurial skills should be made to create awareness for students of tertiary institutions for sustainable human development
- For entrepreneurship education to be functional, government should allocate funds for its implementation and management in tertiary institutions to help inculcate more skills into the students
- Entrepreneurship education should be integrated as a compulsory course for education students in tertiary institutions to able them to be self-reliance after graduation
- There should be vision and thought for the implementation of entrepreneurship education by providing adequate personnel to teach entrepreneurial skills which should be gender sensitive

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