

Original Research Article

Entrepreneurship Enhancement through Vocational Technical Education

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Abstract

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The purpose of this study was to ascertain the factors that will enhance entrepreneurship through vocational technical skills in Rivers State. Descriptive survey research design was adopted. Population of the study comprised of four technical colleges with a total population of 56 technical teachers made up of 42 males and 14 females. There was no sampling. A 37 item structured questionnaire was developed for the study. A modified four-point rating scale of Strongly Accepted, Accepted, Not Accepted, Strongly Not Accepted was used. Data obtained was analyzed using mean to answer research questions and t-test to test the null hypotheses at 0.05 level of significance. Items with mean values of 2.50 and above were accepted while those items with mean values less than 2.50 were not accepted. Findings of the study showed that both male and female technical teachers accepted that vocational technical education will enhance entrepreneurship. No significant difference existed in the scores of male and female technical teachers when tested. It is hereby recommended that Federal Government Policy Statement on the provision of infrastructures and equipment for vocation technical education should be effectively implemented. There should be clear curriculum emphasis on vocational technical education by the universal basic education programme in the country.

Keywords: Enhancement, Entrepreneurship, Vocational Technical Education

INTRODUCTION

Suitable economic growth is an impossibility if there is no adequate and skill labour pool for business and industry. Throughout the world, and in particular West African countries, governments are renewing efforts to promote Vocational technical education with the belief that skill formation enhances productivity and sustains competitiveness in the global economy. Vocational technical education is a tough choice in many developing countries like Nigeria (Yang, 1998). Vocational technical education creates specific human capital thereby imbuing specific job-relevant skills, which can make the worker more readily suitable for a given job and would make the individual thus more productive (Tilak, 2002). Some countries of the world have placed varying emphases on vocational technical education depending

on several historical, social and economic considerations. Vocational Technical Education (VTE) was viewed as the solution to the educational problems of developing economies. Hence the belief that many educational problems could be solved by diversifying the secondary education curriculum, the unbridled demand for higher education could be controlled. Besides the financial crisis in education would be eased by reducing pressures on higher education budgets, and unemployment among college and secondary school graduates would be ameliorated through vocational technical education (Isuaka, Nwaokolo, Akinseinde and Uwameiya, 2011).

Vocational technical education includes industrial technology education, computer education, business education, home economics educations and agricultural

science education. Industrial technology education offers programmes such as Electrical/Electronic Technology, Automobile Technology, Metal Technology, Wood work Technology and Building Technology among others. Training in these fields will lead to the acquisition of skills in occupations like radio and television mechanics, automobile mechanic, electrician, carpentry, Bricklaying etcetra. (Okorie, 2001). Home economics offer programmes in food and nutrition, family economics and home management, clothing and textile and related arts, family relations and child development, housing and household equipment and consumer education.

Furthermore, Home economics can lead to the following occupations: Child care, Guidance and services, Clothing management, production and services; Food management, production and services; Home economics equipment and services; and Institutional and home management support services. (Ene-Obong, 2006 and Uzoka, 2009).

Business education as a programme of instruction consists of office education meant for office careers through initial, refresher and upgrading education leading to employability and advancement in office education (Osuala, 2004). Business education, by the numerous works that it covers produces graduates in various aspects of the world of work. The programme produces qualified workers in marketing and distribution areas, office workers, stenographers, accountants, and business managers of various levels and categories.

Agricultural Science education programme which is also an aspect of Vocational Technical Education is classified into two categories viz: vocational agricultural education for farming and vocational agricultural education for non-farming agricultural occupations (Okorie, 2001). Okorie, identified career opportunities in farming and non-farm agricultural related occupations in the areas of crop production, animal production, food processing, agricultural marketing, agricultural education, extension and public services.

Vocational technical education can produce qualified personnels with varied skills that will be very relevant in the production processes which are changing as a result of the technological advancement, the nature of the demand for skills, both in terms of quantity and quality. Vocational technical education is an equity measure. As an antidote to urban-biased elite education, this form of education promotes equity with a rural bias and serves the needs for relative poor people (Osuala, 2004).

There are cases of some students (especially those in lower class dropping out of school without occupational skills) Grubb (1994 in Okorieocha and Taneh, 2013). This problem is resolved by VTE through more interesting and job-relevant curriculum. VTE is an effective solution to rural problems. This is by alleviating unemployment, reorientating students towards rural society, halt urban emigration, transmit skills and attitudes useful in employment (Liltis and Hogan, 1999 in Okorieocha and

Taneh, 2013). Succinctly vocational technical education is very essential for the development of educational disadvantaged youth in both rural and urban areas. In Nigeria, there is high rate of urban migration owing to quest for employment as a result of the form of education received. There is dearth of well qualified teachers needed to teach and monitor students learning and performance in order to inculcate appropriate discipline and entire entrepreneurship meant for human and economic development (Umoru, 2005 in Okorieocha 2010).

Entrepreneurship refers to the willingness and ability of an individual to seek out investment opportunities in an environment, and be able to establish and run an enterprise successfully based on the identified opportunities (Gana, 2001). In the same vein William (2006) referred entrepreneurship to venturing, undertaking and assuming the risks involving creative skills associated with the organizing, directing and the managing of a business enterprise. It involves taking the initiative, the responsibility and the risk to do what others have not been doing and in different and new ways; and become very successful in it. It is a dynamic and continuous process of creating incremental wealth. Succinctly, entrepreneurship deals with starting a new business; bearing the challenges in the venture in a strikingly new way that creates new products and services. It guarantees creation of new jobs, wealth and technology.

Merits of entrepreneurship are abound among which includes its positive roles in the economic development of several nations of the world (Osuala, 2004). Other benefits at the individual level include being one's own boss, financial security and joy of achievement among others. Specially, entrepreneurship promotes self reliance. This therefore, means that an entrepreneur is one who sets achievable targets for himself or herself, starts resourcefully trying to get what he or she wants from what he or she has. An entrepreneur climbs the ladder of success gradually and bears the risks as they come.

Any nation with a clear vision for its education system should aggressively pursue the development of a structure that integrates access, quality and skills for knowledge economy information with measurable evaluation indicators at all levels of the curriculum. (Eduok, 2011). This will serve as an institutional process of meeting the needs of micro and macro economics of such nations. This has obvious implications for vocational technical education whose central theme is helping individuals attain a useful and satisfying life and be self reliant.

In order to stimulate development and increase entrepreneurial resources, it is highly necessary that steps be taken by leaders to train their citizens to acquire standard skills of creating and working on businesses successfully. This will help them to become effective

agents of socio-economic change in the society and also manage the rich natural resources God has endowed the nation with. This is exposing the citizenry to entrepreneurial education.

Entrepreneurship education means training in various business skills and how to use such skills in setting up profit oriented business unit for production or distribution of economic goods or services (Okorie, 2001). It is important, however, to know that although, entrepreneurship was initially linked mainly to business but in the present 21st century, that is, era of entrepreneurship, education has become a vehicle for conveyance of entrepreneurship because it has been realized that it is through entrepreneurship that product of education can become skilled and self reliance.

Having stated the roles of vocational technical education in enhancing entrepreneurship, it should be noted that there are constraints to vocational technical education that restrict its contributions to entrepreneurship. A greater proportion of the nation's budget on education goes to formal general education with far less, and disproportionate attention given to vocational technical education. The Universal Basic Education (UBE) curriculum places more emphasis on general education at the expenses of vocational technical education and invariably entrepreneurship education and yet only a limited proportion of the population benefits from vocation technical education (Atchoarona, 2004).

Vocational technical students are in better positions to undertake entrepreneurial activities for purposes of self employment and thus, stimulate the nation's economy. But lack of access to credit for small scale business or enterprises poses a major constraint for potential entrepreneurs. Small scale entrepreneurs have difficulty obtaining credit mainly because they cannot meet requirements for collateral. (Eduok, 2011). Career counseling and development services enhance sustainable economic growth by providing, among others, services needed to assist vocational technical students in making the transition from school to employment. These services are constrained by lack of a national data bank and knowledge on available occupations and lack of integration or school based and work-based learning. Occupation and education linkages are fragmented, unstructured, uncoordinated, and informal. The purposes of such linkages are to enhance school performance and work force preparation. For education to be relevant to the needs of individuals and society small business development/enterprises and industry, and education should be strengthened. Unfortunately, Mkpozi (2008) observed that appropriate models that link schooling and workforce preparation are non-existent, in furtherance to vocational technical education constraints Eduok (2011) posited that the majority of female youths are still engaged in what has traditionally been considered

"women's work" and this poses a major constraint particularly in respect of the fact that small entrepreneurs are predominantly women. Women need to be fully informed about any of the jobs in which they may be interested including untraditional careers to females (Greenstone, 2003). Lack of curriculum and structural articulation from secondary vocational education to tertiary vocational technical education programmes breeds a mismatch. Mostly the tertiary school curriculum and instructional delivery in vocational technical education is disconnected and hence does not flow. Lack of curriculum and organizational/structural articulation from craft level tertiary institutions to technician level institutions poses major constraints to students/trainees wishing to acquire advanced vocational technical skills.

An important aspect of VTE refers to financing. Vocational technical education is by definition more expensive than general education. It was estimated that in South Korea secondary technical education costs more than ten times the general education, per student (Middleton and Demsky (1992) in Okorieocha and Musa 2012). The case is indifferent in Nigeria, the funding of vocational technical education programmes is very expensive. Unfortunately, in developing countries like Nigeria, the budget allocation is usually meager and dwindling from time to time. This makes it impossible for the provision of sufficient and relevant materials needed for the programme.

Despite the relevance of vocational technical education in enhancing entrepreneurship, it seems that a large number of the youth is still unemployed. Mkpozi (2008) stated that majority of the youth do not want to possess vocational skills and do not have knowledge of vocational skills that abound. This is due to the fact that the society looks down on the graduates of vocational technical education as being inferior. The government on its own part makes the programme unattractive by non provision of training materials. Tilak, (2002) posited that VTE is conceived as a system of education for the poor, and for the educationally backward persons that are not eligible for admission into higher education.

Based on the foregoing, this study sought to identify the educational skills needed to enhance entrepreneurship, and also, the study wants to ascertain constraints to vocational technical education and entrepreneurship. Two research questions guided the study with two null hypotheses tested in the study.

Research Questions

- 1) What are the vocational technical skills needed to enhance entrepreneurship?
- 2) What are the constraints to vocational technical education and entrepreneurship enhancement?

Table 1. Mean and Standard Deviation of Respondents on the Vocational Skills needed to enhance Entrepreneurship

S/No	Vocational Technical Skills	Mean ($\bar{x}$)	SD	Remark
1.	Auto-mechanic	3.26	1.34	Accepted
2.	Radio and television repairs	3.08	1.18	Accepted
3.	Welding and fabrication	2.98	1.08	Accepted
4.	Blocklaying and concreting	2.69	1.44	Accepted
5.	Carpentry and joinery	2.98	1.37	Accepted
6.	Furniture making	3.26	1.34	Accepted
7.	Plumbing and, pipe fitting	2.98	1.38	Accepted
8.	Childcare service	3.26	1.34	Accepted
9.	Clothing management	3.86	1.44	Accepted
10.	Electrical installation	3.08	1.21	Accepted
11.	Food management	3.26	1.30	Accepted
12.	Home economic equipment and service	2.57	1.33	Accepted
13.	Institutional and home management support services	2.40	1.24	Not Accepted
14.	Stenography	1.89	1.22	Not Accepted
15.	Accountancy	2.99	1.37	Accepted
16.	Marketing and distribution services	3.52	1.47	Accepted
17.	Office Service	3.92	1.04	Accepted
18.	Crop production	3.91	1.03	Accepted
19.	Animal production	2.73	1.11	Accepted
20.	Food processing	3.52	1.00	Accepted
21.	Agricultural marketing	3.42	1.05	Accepted
22.	Agricultural extension services	2.87	1.20	Accepted
23.	Animal husbandry	2.45	1.23	Not Accepted
24.	Computer programming	3.92	1.14	Accepted
25.	Website design	3.84	1.06	Accepted

Hypotheses

Ho₁: There will be no significant difference in the mean responses of male and female technical college teachers on vocational technical skills needed to enhance entrepreneurship

Ho₂: There will be no significant difference in the mean requires of male and female technical colleges teachers on the constraints to VTE and entrepreneurship enhancement.

METHODOLOGY

The study adopted survey research design that made use of questionnaire to elicit data from respondents. The study was carried out in Technical Colleges in Rivers State. There are only four technical colleges in the state. The population of the study was 56 technical teachers in the technical colleges in Rivers State. Out of the 56 teachers, 14 were females while 42 were males. Due to the manageable size of the population, the entire target population was used for the study. This means that there was no sampling. The instrument for data collection was a structured 37 item questionnaire divided into two sections. The questionnaire items were structured based on four point rating scale. The instrument was face validated by three experts from the Department of Technical Education, Faculty of Technical and Science

Education, Rivers State University of Science and Technology, Port Harcourt. The instrument was trial tested on 30 technical teachers at Boys' Technical College, Osusu-Aba Abia State. Cronbach, Alpha formula was used to determine the internal consistency of the instrument. The reliability coefficient of the instrument was .89. Means and standard deviation were used to answer the research questions. The hypotheses were tested using the t-test statistic, at .05 level of significance. In answering the research questions, items with mean of 2.50 and above were agreed while those with mean of 2.50 were disagreed. The hypotheses were tested at .05 level of significance and t-cal value less than the t-crit value, the hypotheses were considered accepted while with the t-cal being greater than the t-crit the hypotheses were considered rejected.

Research Question 1

What are the vocational technical skills needed to enhance entrepreneurship?

Data on table 1 is used to answer the research question 1.

Table 1 above showed that out of the 25 vocational technical skills that could enhance entrepreneurship, 22 were accepted by the respondents with mean rating score of 2.50 and above. This implies that these vocational technical skills will enhance entrepreneurship.

Table 2. Mean and Standard Deviation of Respondents on Constraints to Vocational Technical Education and Entrepreneurship Enhancement?

S/No	Constraints to Vocational Technical Education	Mean	S.D	Remark
1	Poor budget allocation	3.94	1.12	Accepted
2	Less emphasis on VTE by the Universal Basic Education curriculum.	3.80	1.08	Accepted
3	Low enrollment into VTE programmes	3.72	1.06	Accepted
4	Lack of access to credit facilities for small scale enterprises.	3.64	1.01	Accepted
5	Epileptic power supply to Vocational Technical Education Institutions.	3.52	0.96	Accepted
6	Lack of integration of school — based and work — based learning.	3.41	0.90	Accepted
7	VTE programmes are not structured in line with the employees need.	3.25	0.82	Accepted
8	Inadequate information on VTE programmes meant for the females.	3.34	0.86	Accepted
9	Mismatch in secondary vocational education and tertiary vocational education programmes due to lack of curriculum and structural articulation.	3.21	0.80	Accepted
10	Poor and insufficient funding	2.96	0.74	Accepted
11	Lack of qualified personnel to run the programme	2.90	0.70	Accepted
12	Non availability of modern equipments and infrastructures in workshops and laboratories.	3.16	0.08	Accepted

Table 3. Summary of t-test Analysis of the Mean Responses of Male and Female Technical College Teachers on Vocational Technical Skills Needed to Enhance Entrepreneurship

Respondents	N	$\bar{x}$	SD	Df	Level of significance	t-cal	t-crit
Male	42	3.23	1.27	54	.05	0.284	1.68
Female	14	3.12	1.25				

Table 4. Summary of t-test Analysis on Responses of Male and Female Technical College Teachers on the Constraints to Vocational Technical Education on Entrepreneurship Enhancement.

Respondents	N	$\bar{x}$	SD	Df	Level of significance	t-cal	t-crit
Male	42	3.37	0.91	54	.05	0.362	1.68
Female	14	3.36	0.89				

Three items were not accepted as they have mean ratings below 2.50. This implies that respondents do not accept that those skills will enhance entrepreneurship.

Research Question 2

What are the constraints to vocational technical education and entrepreneurship enhancement? Data in table 2 is used to answer the research question above.

Table 2 showed that the respondents accepted all the 12 items as constraints to vocational technical education and entrepreneurship enhancement. All the items have mean score values of above 2.50. This implies that these items are constraints to vocational technical education and entrepreneurship which need to be properly addressed by the relevant bodies as to enhance human development and economic in the country.

Hypothesis 1

There is no significant difference in the mean responses

of male and female technical college teachers on vocational technical skills needed to enhance entrepreneurship.

Table 3 revealed that the calculated value of t is .284 while the crit or table value of t at 0.05 level of significance and at 54 degree of freedom is 1.68. Since the calculated value is less than the tabulated value, hypothesis 1 of no significant difference was accepted. This implies that the mean scores of male and female technical teachers are not significant at 0.05 level of significance.

Hypothesis 2

There is no significant difference in the mean responses of male and female technical teachers on the constraints to vocational technical education and entrepreneurship enhancement.

The data presented in table 4 shows the calculated value of t is .362 while the crit value of t at .05 level of significance and at 54 degree of freedom is 1.68. Since the calculated value of t is less than the table value of t,

hypothesis 2 of no significant difference was accepted. This reveals that the male technical teachers perceived similar constraints to the Vocational Technical Education with their female counterparts.

FINDINGS OF THE STUDY

Based on the analyzed data, the following findings emerged from the study:

1. The respondents accepted the items listed as vocational skills needed to enhance entrepreneurship
2. The findings on the constraints to vocational technical education and entrepreneurship enhancement were accepted by the respondents.
3. There is no significant difference between the mean perception scores of male and female technical college teachers on the vocational skills needed to enhance entrepreneurship.
4. Significant difference does not exist between the mean perception scores of male and female technical college teachers on the constraints to vocational technical education.

DISCUSSION OF FINDINGS

The data presented in table 1 revealed that vocational skills needed to enhance entrepreneurship have been agreed upon by the respondents. These findings are in consonance with Litis and Hogan in Okorieocha and Taneh, (2013) posited that vocational education alleviates unemployment, halts urban migration and transmits skills and attitude useful in employment and world of work. The study also found that food processing, crop production, agricultural marketing are essential skills needed to enhance entrepreneurship. This is in line with the view of Okorieocha (2001) who identified career opportunities in farming and non-farming related occupations in the areas of crop production, food processing, agricultural marketing and agricultural education. Furthermore, the study found that vocational skills needed to enhance entrepreneurship should include child care, clothing management, food management and home economic equipment and services. This finding is in agreement with Ene-Obong (2006) and Uzoka (2009) who stated that home economics leads to occupations such as child care and guidance services food management, production and service including home economics equipment and services.

The data presented in table 2 provided answer to research question 2. The findings revealed that there are numerous constraints to vocational technical education and entrepreneurship enhancement. There is poor budget to allocation to vocational education, less emphasis on VTE by the Universal basic Education curriculum and lack of access to credit facilities to small scale

enterprises, non-availability of modern equipment in VTE workshop and laboratories including low enrollment into VTE programmes. These findings agree with Atchoarena (2004) who asserted that the Universal Basic Education curriculum place more emphasis on general education at the expense of vocational technical education with a limited proportion of the population benefiting from vocational technical education programmes at all levels.

Table 3 revealed that t-calculated in the two groups respondents (0.284) is less than the t-table of 1.68. the null hypothesis (H_0), is upheld, the finding depicted that there is general agreement on the vocational skills needed to enhance entrepreneurship. Table 4 revealed that all the two categories of respondents have the t-calculated less than the t-table value of 1.68. the null hypothesis (H_{02}) is accepted. This finding validates the findings of the research question2, that there is unanimous agreement on constraints to vocational technical education and entrepreneurship.

CONCLUSION

Non possession of requisite skills in relevant vocational areas has hindered the economic development of the nation. This could be traced to the form of educational programme available in the school system. For entrepreneurship enhancement in the country among the teaming youth, vocational technical education is very crucial as it will enhance the possession of saleable skill, that will make them self reliant and enterprising. Vocational technical education therefore should be made more functional with modern teaching and learning equipment provided such that the graduates will contribute to both the technological and economic development of the nation.

RECOMMENDATION

From the findings of this study it is hereby recommended as follows:

1. Federal government should ensure that her policy statement on the provision of necessary infrastructure and equipment for the vocational technical education in the country is effectively implemented. This should be by mapping out a reasonable percentage of her annual budgets for the development of vocational technical education programme.
2. There should be clear curriculum emphasis on vocational technical education by the Universal Basic Education Policy as this will enhance proper inculcation of vocational skills right from the primary schools.
3. The education policy makers in the country should avoid frequent changes in the system; rather allow a particular policy to thrive for some years before such is changed. Hence a policy like the Junior Secondary

School programme which was aimed at making students acquire vocational skills that would make them self reliant on completion of the programme should be revisited.

4. There should be more frequent and regular power supply in the country especially in all vocational technical institution in the country for and effective practical sessions.

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