

**ENTREPRENEURSHIP EDUCATION IN TERTIARY TECHNICAL INSTITUTIONS
AND SUSTAINABLE NATIONAL TRANSFORMATION IN RIVERS STATE**

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ABSTRACT

This paper made a case for entrepreneurship education and its impact on technical education in tertiary institutions for sustainable national reformation in Rivers State. The design for the study was descriptive survey. The population of this study consisted of all the staff and students of all the polytechnic and technical colleges of education which is 15,476 in Rivers State. The sample used for this study was a total of 288 staff and 1440 students randomly selected subjects. Two null hypothesis and two research questions guided the study. The instrument for data collection was 10 items questionnaire developed by the researcher. Means and standard deviation were used to answer the research questions while the t-test statistical analysis was used to test the two null hypothesis. 4 point linkert scale of Strongly Agree (SA=4), Agree (A=3), Disagree (D=2), Strongly Disagree (SD=1) was applied. This implies that questionnaire items with mean value of 2.50 and above were rejected. The questionnaire was constructed by the researcher and validated by two experts in educational research using the Cronbach Alpha formula yielded a reliability index of 0.84 was obtained for the instrument. The findings of the study revealed that entrepreneurship education impacted positively in the management and administration of polytechnics and technical colleges in terms of changes in academics curriculum to reflect to the needs of the society, changes in mode of teaching techniques, improvement in high level skills manpower relevant to the society, adequate funding to meet the ever changing academic curriculum, good facilities and administration to meet up with the demand occasioned by the sustainable national transformation embedded in the curriculum.

INTRODUCTION

Tertiary technical institutions are higher institution which offers programme that teaches students about technology and technical aspects of a particular career through hands on training. Students of these institutions are prepared for careers that are based on practical applications and include on the job training which is in the form or areas as in computer sciences, electronic, drafting, medical information, technology, business and health sciences that are basically designed to prepare students for the workforce and often do not include academic classes in general education.

National Policy on Education (2013), outlined the goals of tertiary technical institutions to include:

- a. Provide courses of institution and training in engineering other technologies, applied sciences, business and management leadership to the production of train manpower.
- b. Provide the technical knowledge and skills necessary for agriculture, industrial, commercial and economic development of Nigeria.
- c. Give training that impact the necessary skills for the production of technicians, technologies and other skilled personnel who shall be enterprising and self-reliant.
- d. Train people who can apply scientific knowledge to solve environment problems for the convenience of man and
- e. Give exposure on professional studies in the technologies.

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It is this background in actualisation of the noble objectives of technical education for sustainable national transformation that entrepreneurship education was incorporated into the curriculum of tertiary technical institutions through the national Board of Technical Education in 2007 which according to Awodum (2014) is aimed at providing learning through acquisition of knowledge and skills as ultimate solution for growth, developments and poverty reduction.

Okorafor and Ike (2013) posited that sustainable national transformation is fuelled by technical innovations and accumulation particularly in the field of technology, technical changes, and accumulation is not supported by physical investment on plants and industries alone but also by efficiency with which capitals is utilized. According to them, effectiveness and efficiency in capital utilization solely rest on qualitative and potential human capital. This is because development of the required human capital implies the development and strengthening of technological and managerial training programs which brings to light the indispensable role entrepreneurship education plays in tertiary technical institutions.

ENTREPRENEURSHIP EDUCATION

UNESCO (2016), defined entrepreneurship education as a collection of formalized teachings that informs, train and educates anyone interested in participating in socio-economic development through a project to promote entrepreneurship awareness, business creation or small business development.

Miro-Shatz, Becker, Patel and Eyse-Nbach (2014), stated that entrepreneurship education seeks to provide students with knowledge, skills and motivation to encourage entrepreneurship in a variety of settings. Entrepreneurship education is the ability to identify and seize opportunities and to plan and manage creative processes that are of cultural, social or financial value.

WHO IS AN ENTREPRENEUR

Afolabi, Omuluwa and Oyetayo (2011), posited that the term entrepreneurship is a French word meaning 'enterprises' thus, an entrepreneur is the owner of the business, risk taker and the assembler of all factors of production. Nelson and Neck (1986) in Afolabi (etal) defined entrepreneur as an action oriented and highly motivated individuals who take risks to achieve goals. Awodum (2014), further explained that entrepreneur is someone who exercises initiatives by organizing a venture to take benefits of an opportunity and as the decision maker, decides what, how and how much of goods or services will be produced. Based on the above definition, a businessman such as a sole proprietorship who organizes capital makes decision that significantly impact on his business harness all other factors of production required for his business can be positively be referred to as an entrepreneur. The entrepreneur is always adventurous, courageous, creative, sociable, intelligent, highly perceptive and achievement towards moderate risk which will be rewarding.

PROCESSES OF ENTREPRENEURSHIP EDUCATION

Whitehead in Welsh and Hamid (2016), pointed out that process philosophy is causally influenced by previous occasions experience and also casually influences future occasions of experience. According to them, occasioned of experience consists of a process of apprehending other occasions of experience and re-acting to them such a process sequence in never deterministic but consequentially free- will is essential and inherent in approach. This indicates that process of entrepreneurship education is anchored on two major components which are attitudinal and behavioural in nature.

- a. ATTITUDINAL COMPONENT:** this refers to the willingness of an individual or organisation to embrace new opportunities and take responsibility for effecting creative change at the slightest opportunity.

- b. BEHAVIOURAL COMPONENT:** this involves the set of activities required to identify and evaluate opportunities and resources and implement the concept or venture. The underlying factors beneath these entrepreneurial attitudes and behaviour are three fundamental dimensions which are innovativeness, risk-taking and pro-activeness. Innovativeness is seeking creative unused or novel solution to problems and needs of an individual or the society. Risk taking involves the willingness of an individual to commit significant time and resources to identify opportunity that have a reasonable chance of failure. While pro-activeness is taking decision ahead of time with a considerable perseverance, adaptability and willingness to assume responsibility for failure.

RELATIONSHIP BETWEEN ENTREPRENEURSHIP EDUCATION AND TERTIARY TECHNICAL INSTITUTIONS

Entrepreneurship education addresses the dearth of technical skills needed for sustainable transformation in the country. The entrepreneurship education was incorporated in the curriculum of technical tertiary institutions is aimed at building support for job creation, wealth creation, poverty alleviation, provide students and the likes with the knowledge, skills and motivation to successfully start and sustain a business, train for self-employment to meet the demands of the new global work place and provide the new breed of graduates with the spirit of enterprise and industry.

In view of this, graduates of these institutions are expected to possess the relevant skills necessary to establish and manage a business venture that will provide employment opportunities to the citizens of the state and total transformation of the economy of the country at large.

STATEMENT OF PROBLEM

The relationship between entrepreneurship educations technical tertiary institutions has been established such that entrepreneurial education has been best described as the antidote to sustainable national transformation of the economy towards unlocking the nation economic development by the Nigeria government. This was embedded in the National Policy on education as an educational policy for technical tertiary education as outlined since 2007. In other to encourage this noble policy the National Board for Technical Education and National Commission for Colleges of Education curriculum was reviewed to accommodate this gesture. A close look at various technical tertiary institutions in the country via state technical tertiary institutions today has reneged on full implementation of this noble policies even when it has been inculcated in the curriculum hence there seems to be a great dichotomy between graduates of these institutions and there relevance to the need of the society and the world of work. Therefore, this study sets out to examine the revance of entrepreneurship education and programme implementation in Rivers State using some selected technical tertiary institutions as a baseline.

OBJECTIVES OF THE STUDY

The objectives of this study to

- a. identify the relevance of entrepreneurship education on tertiary technical institutions as perceived by both staff and students.
- b. examine the impact of entrepreneurship which are innovativeness, risk-taking and pro-activeness. Innovativeness is seeking creative unusual or novel solutions to problems and needs of an organisation or the society. Risk-taking involves the willingness to commit significant resources to identified opportunities that have a reasonable chance of failure.

Pro-activeness is taking decisions and steps to implement such decision ahead of problem with considerable perseverance, adaptability and willingness to assume responsibility for failure.

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RELATIONSHIP BETWEEN ENTREPRENEURSHIP EDUCATION AND POLYTECHNIC, TECHNICAL EDUCATION

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RESEARCH QUESTIONS

The following research questions guided the study.

- a what is the relevance of entrepreneurship education to tertiary technical institutions in Rivers State as perceived by both staff and students.
- b what are the impact of entrepreneurship education on tertiary technical institutions towards sustainable national transformation of the Rivers State via the economy.

RESEARCH HYPOTHESIS

The following research hypothesis guided the study

- a there is no significant difference between relevance of entrepreneurship education and tertiary technical institutions as perceived by both staff and students.
- b there is no significant difference between the impact of entrepreneurship education and tertiary technical institutions towards sustainable national transformation.

METHODOLOGY

A descriptive survey design was adopted to answer the research questions and test the posed hypothesis. The design was capable of collecting data that described the relevance of entrepreneurship education and its impact on sustainable national transformation of the economy via Rivers State. Rivers State is made up of 23 local government with one federal university (University of Port Harcourt) located at Choba, two State Universities (Rivers State University) located at Nkpolu Oruwuruoko and Rivers State University of Education located at Iwofe, two State Polytechnics located in Bori and Rumuola respectively, one Federal Polytechnic located at Bonny and one Federal College of Education (Technical) located at Omoku. But the emphasis of this research study is on the three (3) Polytechnics and one Federal College of Education. The population of the study consisted of 948 staff (academic and non-academic staff) and 14,428 students in all the tertiary technical institutions in Rivers State. In all 1,670 participants were used. The instrument used for the study was two sets of questionnaire. The Relevance of Entrepreneurship Education on Tertiary Technical Institutions (REETTI) and Sustainable National Transformation Questionnaire was designed by the researcher. The two set of questionnaires consisted of 10 items rated on a four point Linkert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with scores of 4 points, 3 points, 2 points, 1 point respectively. However, the scores were reversed for all negative items. The two instruments had a reliability coefficient of $r=.81$ and $a=.78$ respectively. The questionnaires were administered by the researcher and two trained research assistant. All the 288 copies of the questionnaire for the staff were returned while 1383 for students were returned representing 96% returned rate.

Data obtained were analysed with arithmetical mean and standard deviation in relation to the research questions and the hypothesis were analysed using Pearson Product Moment Correlation and t-test statistical tool at 0.05 level of significance. A criterion mean value of 2.50 was used for the descriptive analysis. This means that a mean with a mean value of 2.50 was used for descriptive analysis. This means that a mean with a mean value below 2.50 indicates low level and participant's disagreement while a mean value above 2.50 indicates high level and participant's agreement.

Results Presentation and Data Analysis

Research Question One

What is the relevance of entrepreneurship education to tertiary technical institutions in Rivers State?

Table 1: mean rating of relevance of entrepreneurship education to tertiary technical institutions.

S/N	Items	Staff		Students	
		X	SD	X	SD
1.	Entrepreneurship education in the tertiary technical institutions was conceived by National Council of Education.	2.22	0.97	2.07	0.90
2.	Every tertiary technical institutions was mandated to inculcate entrepreneurship education in their curriculum.	3.33	0.87	3.27	0.89
4.	Qualified lecturers were recruited to handle these courses at all levels of the tertiary technical institutions.	2.14	0.88	2.09	0.80
5.	Lecturers recruited were subjected to further training hence exposing them to modern techniques of course delivery to the students.	2.97	0.91	3.06	0.88

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6.	Facilities were provided to support the teaching of these courses.	2.74	0.88	2.05	0.97
7.	Students were exposed to the practical aspect of these courses	2.38	0.70	2.30	0.73
8.	Students were given the opportunity to attach with a similar organisation in form of industrial training to enhance their knowledge within a stipulated period	2.14	0.91	2.07	0.90
9.	There is constant monitoring and evaluation of teaching and learning to ascertain the level of implementation and absorption by staff and students.	3.01	0.88	2.99	0.88
10.	Monitoring and evaluation are done periodically	2.89	0.70	2.38	0.70
Average mean		29.10		24.61s	

Table 1 above revealed that the average mean score for relevance of entrepreneurship education to tertiary technical institutions was 29.10 which is higher than that of the students which stood at 24.61. this means that the perception of the staff about the relevance of entrepreneurship education in tertiary technical institutions is high while in item 5 both staff and students agrees on the need to further expose the students to the world of work through industrial training. This should be part of the curriculum content.

Research question 2

What are the impacts of entrepreneurship education on tertiary technical institutions in Rivers State?

Table 2 mean rating of the impacts of entrepreneurship education on tertiary technical institutions.

S/N	Item	Staff		Students	
		X	SD	X	SD
1.	Staff and students appreciates the inclusion of entrepreneurship education in the curriculum of tertiary technical institutions	2.76	0.68	2.94	0.72
2.	Students appreciates the mode of teaching these courses in the institutions	2.14	0.93	2.60	1.05
3.	Students at the end of the academic period can fit in to the world of work	1.95	0.73	2.56	1.00
4.	Graduates of these institutions can vividly establish their own business	2.84	0.64	3.06	0.68
5.	Graduates of these institutions acquired the needed skills relevant to the rudiment of entrepreneurship education as required	2.43	0.76	2.56	1.00
6	Graduates of these institutions acquired the needed skills relevant to the needs of the society	2.54	0.91	3.38	0.62

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7.	Students are exposed to the rudiment of entrepreneurship education as required	2.38	0.94	2.29	0.97
8	Staff appreciates the level of knowledge imparted to the students within the duration of the programme	3.01	0.88	2.99	0.88
9.	The needed facilities are provided to enable the teaching of the course of study	2.74	0.88	2.05	0.97
10.	The institution carry out self-evaluation of the students to ascertain the impact of the course on their future endeavour	3.42	0.78	3.35	0.87
sAverage mean		26.21		27.08	

Table 2 indicates that the average mean 26.21 for staff and 27.08 for students. This signifies that the students appreciate the impact of entrepreneurship education in tertiary technical institutions. Items 1,4,6,8,9,and 10 supported this assertion while items 2,3, 5 and 7 emphasizes the needs for students to acquire relevant skills through mode of teaching within a given specific period.

Hypothesis testing

H₀1: there is no significant difference between relevance of entrepreneurship education and tertiary technical institutions as perceived by both staff and students.

Table 3: correlational analysis of the difference between relevance of entrepreneurship education and tertiary technical institutions as perceived by both staff and students.

Variables	N	X	SD	DF	t-cal	t-crit	Dec.
Staff	288	2.78	0.48	16.68	0.164	1.960	Accept
Students	1382	2.56	0.56				

P<0.05

Table 3 shows a calculated t- value is 0.164 while critical t-value is 1.960 at 0.05 level of significance and 16.68 degree of freedom. Since the t-calculated value is found to be less than the critical t-value. The null hypothesis is accepted meaning that there is no significant difference between relevance of entrepreneurship education and tertiary technical institutions as perceived by both staff and students.

Ho2: there is no significant difference between the impact of entrepreneurship education and tertiary technical institutions towards sustainable national transformation.

Table 4. correlational analysis of the difference between the impact of entrepreneurship education and tertiary technical institutions.

Variables	N	X	SD	DF	t-cal	t-crit	Dec
Staff	288	2.59	0.49	1668	0.218	1.960	Accept
Students	1382	2.76	0.52				

P<0.05

Table 4 above correlational analysis shows a calculated t-value of 0.218 while critical value is 1.960 at 0.05 level of significant and 1668 degree of freedom. Since the t-calculated t-value is found to be less than the critical t-value. The null hypothesis is accepted meaning that there is no significant difference between the impacts of entrepreneurship education on tertiary technical institutions.

DISCUSSION OF FINDINGS

In relation to research question 1, table 1 shows that the perception of both staff and students on the relevance of entrepreneurship education in tertiary technical institutions for sustainable national transformation. They jointly agreed that industrial training is the hallmark of exposing the students to the rudiments of world of work. In support of this, Evan-Obinna (2016), posited that in order to achieve viable entrepreneurship education in tertiary technical institutions that will enhance self-reliance, education planning effort must therefore:

Recognise the technological imperatives in modern industrialization and provide suitable arrangement for orientation of the labour force towards technological adoption.

Ensure that the educational system is geared not only for quality because high quality academic preparation is a prerequisite for the type of industrialization that will transform the nation.

Eradicate imbalance in skill formation through meaningful attention to the enhancement of intermediate technical skills and artificial training believing that skills and knowledge are the driving force of economic growth and development for any society. Hence, analysis of the null hypothesis confirmed that there is no significant difference between the relevance of entrepreneurship education and tertiary technical institutions as perceived by both the staff and students. This is an indication that all the variables are relevant for efficient and effective national transformation in the society.

Table 2 shows that entrepreneurship education in tertiary technical institution impact positively on the students outside the educational environment because of series of industrial training and the provision of relevant skills and knowledge within the academic environment as contained and detailed in the curriculum. In view of this assertion, Amadi-Echendu, Philips, Kudakwashe and The a (2016), asserted that entrepreneurship education involves developing behaviours, skills and attribution applied individually and or collectively to help individuals and businesses to create, cope with and enjoy change and innovations that sustain and transform the society. Entrepreneurship education in tertiary technical institutions assist in establishing a more entrepreneurial mind set among students which contribute to readjusting their expectation of the job market and learning outcomes per curriculum of tertiary technical institutions in Rivers State are becoming increasingly important components of the state and national sustainable transformation which has both direct and indirect value to the society.

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Finally, the result of the tested hypothesis as presented in table 3 showed that there is no significant difference between the impact of entrepreneurship education on tertiary technical institutions and sustainable national transformation in Rivers State. Both staff and students concurred to this facts.

CONCLUSION

Entrepreneurship education as a collection of formalized teaching that inform, train and educates anyone interested in participating in socio-economic development through a project to promote entrepreneurship awareness, business creation or small business development. This study focused on the relevance and impact of entrepreneurship education in tertiary technical institutions as a formalized teaching that inform, train and educate anyone interested in participating in socio-economic and sustainable transformation of the state and the country at large. To this effect, challenges such as inadequate instructional facilities, inadequate manpower, government and public perception of technical institutions, inadequate exposures of the students outside the educational institutions that is to the world of work inform of industrial training etc. are bedevilling the effective and efficient implementation of the entrepreneurship education in the tertiary technical institutions. Despite these challenges, introduction of entrepreneurship education in tertiary technical institutions has contributed in remodelling the business skills of graduates of these institutions such as reduction in the rate of unemployment through the establishment of small scale businesses across the states via the entire country providing employment opportunities for its teeming youths which aids in sustainable transformation of the country at large.

RECOMMENDATIONS

The following recommendations are made in relation to the findings of the study.

- National Board for Technical Education and National Commission for Colleges of Education should properly monitor the teaching and learning of these institutions to ensure adherence and full implementation of the content and context of the curriculum.
- Government should adequately provide instructional facilities/materials as required or specified for proper teaching and learning for effective and efficient acquisition of relevant skills for sustainable national transformation.
- Adequate programme should be put in place to ensure proper transition from school to the world of work.
- Government should ensure proper training and retraining of teaching staff for effective service delivery.
- Proper and adequate manpower should be employed for specified area of study.
- Periodic orientation should be organised for both staff and students in other to expose them of the relevance of entrepreneurship education in tertiary technical institutions.
- The curriculum so formulated should comply with the needs and aspiration of the society to ensure their usefulness for effective sustainable national transformation.

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