

Managing the Challenges facing Technical and Vocational Education Programme in Rivers State for National Cohesion and Global Competitiveness.

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Abstract. The study investigated managing the challenges facing technical and vocational education programmes in Rivers State for national and global competitiveness. Three research questions and three corresponding hypotheses guided the study. The descriptive survey design was adopted. A sample size of 115 representing 30% was drawn from a population of 347 directors and principals, using stratified sampling technique. An instrument titled managing the challenges facing technical/vocational education questionnaire (MCFTVEQ) was used for data collection. Validity of the instrument was ascertained using professional critique of experts in educational management and evaluation. Reliability was obtained through test re-test method, using a sample of 20 selected vice principals in Rivers State who are not part of the study group. The instrument yielded a reliability index of 0.74. The mean and standard deviation were used to answer the research questions while the z-test was used to test the hypotheses at 0.05 significant level. The findings revealed that the challenges facing technical and vocational education in Rivers State are, inadequate finding, no equipped workshops and laboratories, strong dislike for the programme and brain drain. Technical and vocational education provides employable and productive skills, change negative attitudes and inculcate positive attitudes on the citizens that will bring national cohesion and global competitiveness. It

was inter alia recommended that Rivers State government should provide fund to technical and vocational schools, ensure better remuneration for technical education teachers, embark on enlightenment campaign, provide workshops, ensure appropriate maintenance culture in technical and vocational school and provide collaboration between vocational schools and companies.

Keywords: Technical, vocational, education cohesion, global competitiveness

1. Introduction

Education is always a powerful instrument for progress and the greatest power known for man's improvement. It is also a phenomenon engaged by societies in all their developmental stages. The process of education helps to impart useful and relevant skills to individuals which in turn leads to societal growth. Highly industrialized nations have at one time or the other identified technical and vocational education as a transformational key policy the thrust for technological growth and economic advancement.

Technical and vocational education commenced in Nigeria with the adoption of 6-3-3-4 system of education. It seeks to vocationalize the school systems and make secondary education relevant to the industrial manpower needs and self-reliant

needs of the citizens. It was on this direction that the pre-vocational and vocational education was made compulsory at the junior and senior secondary school level under the 6-3-3-4 arrangement. This is a step in the right direction in providing the skills required for individuals to be better, more useful and productive citizens of the society. The graduates equipped with these technical and vocational skills are relatively the labour force and their professional responsibilities are required to effectively perform in the dynamic and competitive world of work. It is therefore important to note that this system of education needs to be properly managed to achieve the desired goals and objectives.

1.1 Statement of the Problem

There is the projection that technological and vocational education will prepare the citizens with different skills for paid jobs or self-gainful engagements. That the skills acquired should also be relevant to labour demand and manpower needs of the society, technological and sustainable development, productivity, self-reliance, national cohesion and global competitiveness. The planning and provision of technical and vocational education in Nigeria is indeed suitable and relevant towards the realization of these goals.

But it seems that this programme can effectively achieve these above objectives if it is well managed. In Nigeria and Rivers State in particular, technical and vocational education seem to be faced with some challenges, which could lead to non-realization of these goals. It is on this note that the study tries to identify these challenges and ways of managing them, in order to achieve the objective of national cohesion and global competitiveness.

1.2 Aim and objective of the study

The aim of this study is to investigate the ways of managing the challenges facing technical and vocational education in Rivers State for national cohesion and global competitiveness. The specific objectives are to:

- Identify the challenges facing technical and vocational education programme in Rivers State.
- Examine how technical and vocational education programme in Rivers State can lead to national cohesion and global competitiveness.
- Assess the ways of managing the challenges facing technical and vocational education programme in Rivers State for national cohesion and competitiveness.

1.3 Research Questions

The following research questions guided the study:

- What are the challenges facing technical and vocational education programme in Rivers State?
- How does technical and vocational educational programme in Rivers State lead to national cohesion and global competitiveness?
- In what ways can the challenges facing technical and vocational education programme in Rivers State be managed for National cohesion and global competitiveness.

1.4 Hypotheses

The following hypotheses were tested:

- This is no significant difference between the mean ratings of directors and principals on the challenges facing technical and vocational education programme in Rivers State.
- There is no significant difference between the mean ratings of directors and principals on how technical and vocational education programme in Rivers State can lead to national cohesion and global competitiveness.
- There is no significant difference between the mean ratings of Directors and principals on the ways of managing the challenges facing technical and vocational education programme in

Rivers State for national cohesion and global competitiveness.

2. Literature Review

This study is guided by efficiency and effectiveness of organization theory propounded by Chester Bernard (1938). According to Chester Benard as cited in Kpee (2015), the theory states that the function of the chief executive of an organization is to ensure efficiency and effectiveness in the organization. In any organization setting, effectiveness entails the accomplishment of the organizational objectives through task related activities that will enable the organization attain its' goals, while efficiency entails all efforts geared towards attaining staff welfare and better working condition.

The theory further states that efficiency and effectiveness of an organization depend solely on the quality and quantity of human and material resources inputs invested into the organization as well as the level of prudence employed by the chief executive in managing the available resources, human and materials in the organization. The theory therefore holds that a synergy must exist between the availability of the quantity and quality of inputs and prudential management of all the resources, human and materials of the organizations, if the organization goals will be achieved and continue to exist.

The theory is relevant to this study because, for the goal of technical and vocational education to be achieved, there should be availability and utilization of educational facilities, and the facilities need to be prudently managed towards the attainment of the goals underlying the provision of technical and vocational education.

3. Conceptual framework

3.1 The Concept of Technical and Vocational Education

According to Okoro (1993) as cited in Ebete (2015:352); vocational education is defined as

any form of education whose primary purpose is to prepare persons for employment in recognized occupations". Federal republic of Nigeria (2004:29), defines technical and vocational education as:

A comprehensive term referring to those aspects of educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

Also Nwaifo (2009) as cited in Ebete (2015) posited that technical education is the training of technical oriented personnel who are to be initiators, facilitators and implementers of technological development of the nation. He further stressed that technically, education more than any other profession has direct impact on national welfare.

From the above definitions, technical and vocational education are used synonymously to refer to an education aimed academically at engaging the citizens in the acquisition of modern technological skills, to prepare them for employment.

3.2 The Challenges facing Technical and Vocational Education

Technical and vocational education is facing some notable challenges. One of these challenges is funding Aghenta (1985) as cited in Okoye and Arimonu (2016) stated that inadequate funding of technical and vocational institutions has led to the turning out of half-baked graduates because there are no funds to build and maintain workshops, laboratories or purchase modern facilities. He further stated that staffing of technical and vocational schools is generally inadequate because of poor funding. Similarly, Momoh (2012) and Mohammed (2001) as cited in Okoye and Arimonu (2016) observed that government lack of commitment to technical and vocational education, and inadequate funding has weakened technical and vocational education in Nigeria.

Furthermore, Origa (2005) as cited in Okoye and Arimonu (2016:115) opined that “Only 40% of institutions of higher education in Nigeria have laboratory and workshop space for technical education programmes”. He observed that the few schools that have laboratories, experience acute shortage of laboratory equipment and supplies.

Also, Bassi (2004) as cited in Okoye and Arimonu (2016:115), stated that “about 45% of all Nigeria professionals including technical educators have left the Nigerian shores over the years”. He also stated that between 1997 and 2007, Nigeria lost over 10,000 middle level and high level managers to the western economies. This is a serious brain drain.

Ojimba (2012) as cited in Okoye and Arimonu (2016:115), noted that the salary and service benefits paid to technical education teachers in Nigeria is about the lowest in the world. He further stated that the curriculum of technical and vocational education is based on foreign model, too theoretical instead of practical, and teaching method follows the conventional method of transferring knowledge across through the lecturer reading out to students.

Okoye and Arimonu (2016) also noted that apathy and strong dislike for technical education is another challenge facing the programme. According to him technical and vocational education has been grossly neglected in Nigeria.

Again, the issue of Nigerian value system is a challenge. Nworlu-Elechi (2013) as cited in Okoye and Arimonu (2016), noted that too much emphasis is placed on university qualification not minding whether the holder possesses the required knowledge or skills. No doubt Nigeria has remained a technologically backward and dependent nation due to this value system.

3.3 Technical / Vocational Education and National Cohesion

Countries around the globe are vigorously implementing technical and vocational education in order to provide employable skill to its citizens so as to ensure national integration

and cohesion. It is believed that the more people are self-employed, the stronger the economy, the higher the standard of living, the more cohesive and well integrated the citizenry of a nation.

It is in this direction that Sadiq, Kire and Kwairanga (2006) posits that the present democratic government is vigorously pursuing vocational and technical education towards providing employable skills to its citizens so as to ensure national integration and cohesion. This is because it follows that the more citizens of a nation are self-employed, the stronger the economy and the higher the standard of living.

Furthermore, Abubakar (1998), as cited in Sadiq, Kire and Kwairanga (2006) notes that nation building does not only lie on how best our natural resources are harnessed or managed, but lies more or less on how best the human assets of the nation are progressively educated. According to him, this is where vocational and technical education play a vital role. Supporting this view, Kanu (1999) as cited in Sadiq, Kire and Kwairanga (2006) assert that education is capable of bringing about change of negative attitude and values of a people and can be used to inculcate in them positive attitude of cooperation and national consciousness which cuts across regional and state boundaries.

Also, Mbah (1985:5) reported by Kwairanga (1999), as cited in Sadiq, Kire and Kwairanga (2006) states that Nigeria is seen as a nation of division, conflict and diversity, which ranges from indiscipline, poor attitude to work, robbery, arson, bomb blast, religious and ethnic bigotry, all of which are evidence of national disintegration and lack of cohesion. According to him vocational/technical education is capable of eradicating such social vices in the society which will bring about the desired national integration and cohesion.

3.4 Technical Vocational Education and Global Competitiveness

Osuala (1995) as cited in Sadiq, Kire and Kwairanga (2006) asserts that vocational education provides skills, abilities, economic understanding and develop aptitude, attitudes,

work habits and competence that help an individual enter and make progress in employment on a useful and productive basis. This in turn leads to global competitiveness. And the success or failure of any nation's economy depends on the functionality of its vocational and technical education system.

And Ukeje (1996) in Omenkeukwu (1998) as cited in Sadiq, Kire and Kwairanga (2006) states that vocational/technical education is an engine that generates creativity and skillfulness. When a nation is creative and skillful, that nation can be globally competitive. From the foregoing, vocational/technical education prepares citizens to be functional, productive and gainfully employed and self-reliant. If the citizens of a nation are all productively busy and well fed, crime rate and other societal vices will drop, paving way for peace, which is a bi-product of national integration and cohesion; and global competitiveness.

3.5 Managing Technical and Vocational Education for National Cohesion and Global Competitiveness

Technical and vocational education has been seen as a veritable tool for national cohesion and global competitiveness. But there is still the need to manage that educational system properly to ensure that this desired goal is achieved. This is the reason why Okoye and Arimonu (2016:117) recommended that adequate resources should be allocated to technical and vocational education to provide essentials such as equipped laboratories and workshops, relevant textbooks and training manuals.

Also, Okolocha (2012) stated that for vocational education to meet the economic, social and political trends of the time, the nation must use qualified vocational training professionals/teachers in implementing vocational technical education programme. She further stated that, investing in quality vocational technical education programme, training and learning taking place in authentic and real work environment, adoption of uniform standard of training and certification are very important factors for the graduates of technical vocational education programmes to complete favourably, globally.

Similarly Okoye and Arimonu (2016) highlighted that proficient teachers, technical institutions/establishments of good relationship and linkages with similar institutions abroad will promote exchange of ideas, skills and this in turn will enhance technology transfer. The duo further stated that there should be collaboration between technical institutions and industries, and the curriculum taught in our vocational institutions should be reviewed to meet the demands of the labour market.

Sadiq, Kire and Kwairanga (2006) recommended that government should embark on an aggressive enlightenment campaign on the relevance of vocational/technical education so that Nigerians should be made to appreciate dignity in labour.

Furthermore Ebete (2016) recommended that Rivers State government should try to provide functional workshops in technical/vocational schools, and appropriate maintenance culture should also be given to the existing facilities. He further stated that teachers and adequate technical workshop instructors should also be provided in technical/vocational schools in Rivers State.

4. Methodology

The study adopted a descriptive survey design. The population is 347 consisting of 247 principals of senior secondary schools and 100 directors in Rivers State. A sample size of 115 representing 30% of the population were drawn using stratified sampling technique. An instrument titled Managing the Challenges facing Technical/Vocational Education for National cohesion and Global Competitiveness Questionnaire (MCTNEGCQ) was used for data collection. The questionnaire contains 15 items designed to elicit information from research questions. The questionnaire was patterned according to modified likert scale of strongly agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

Validity of the instrument was ascertained using the critique of experts in educational measurement and evaluation. Reliability was obtained through test re-test method, using a sample of 20 selected vice principals in Rivers State who are not part of the study group. The

instrument was administered twice on the respondents. The two scores were analyzed by using Pearson product moment correlation statistics and the instrument yielded a reliability index of 0.74. The instrument was administered and retrieved by the researcher with the help of

two research assistants. The data were collated and the mean and standard deviation were used to answer the research questions while, the z-test was used to test the hypotheses at 0.05 significant level.

5. Results and Discussion

Research Question 1: What are the Challenges facing Technical and Vocational Education Programme in Rivers State?

Table 1: Mean and Standard deviation of Directors and Principals' opinion on the Challenges facing Technical and Vocational Education Programme in Rivers State.

S/N	Items	Directors		Principals		$\bar{x}$	Decision
		$\bar{x}$	SD	$\bar{x}$	SD		
1	There appear to be inadequate funding of technical and vocational institutions in Rivers State.	2.80	.73	2.79	.71	2.79	Agree
2.	These are no equipped workshops and laboratories in technical and vocational institutions in Rivers State.	3.30	.94	3.25	.93	3.27	Agree
3.	There also seem to be a strong dislike for the programme.	3.10	.91	3.05	.90	3.07	Agree
4.	Technical and vocational education teachers and instructors are not well paid.	2.85	.76	2.80	.73	2.82	Agree
5.	There is also the challenge of teachers of technical and vocational education leaving the country to another country for better pay (brain drain).	3.01	.90	2.95	.88	2.98	Agree
	Aggregated mean	3.01		2.96		2.99	

The data in table 1 above show that the calculated mean scores of items 1,2,3,4 and 5 are $\bar{x} = 2.79$, $\bar{x} = 3.27$, $\bar{x} = 3.07$, $\bar{x} = 2.82$ and $\bar{x} = 2.98$ respectively. The mean scores are above the criterion of 2.50. This portrays that the challenges facing technical and vocational education in Rivers State are, inadequate funding, no equipped workshops and laboratories, strong dislike for the programme, no better payment and the issue of brain drain.

Research Question 2: How does technical and vocational education programme in Rivers State lead to national cohesion and global competitiveness?

Table 2: Mean and standard deviation of Directors and Principals opinion on how Technical and Vocational Education Programme in Rivers State can lead to National Cohesion and Global Competitiveness

S/N	Items	Directors		Principals		$\bar{x}$	Decision
		$\bar{x}$	SD	$\bar{x}$	SD		
6.	Technical and vocational education will provide employable and productive skills that can lead to global competitiveness	3.14	.93	3.09	.91	3.11	Agree
7.	Technical and vocational education can help to change negative attitudes on the citizens and inculcate, positive attitudes which will bring in national cohesion.	3.00	.90	2.94	.88	2.97	Agree
8.	Technical and vocational education is also capable of eradicating social vices in the society.	3.07	.92	3.02	.90	3.04	Agree
9.	Technical and vocational education can lead to creativity, skillfulness and productivity.	2.86	.76	2.95	.88	2.90	Agree
10.	When the citizen are creative and productive, it will lead to national cohesion and global competitiveness	3.15	.91	3.06	.91	3.10	Agree
	Aggregated mean	3.04		3.01		3.02	

The data in table 2 above show that the calculated mean scores of items 6,7,8,9 and 10 are, $\bar{x} = 3.11$, $\bar{x} = 2.97$, $\bar{x} = 3.04$, $\bar{x} = 2.90$ and $\bar{x} = 3.10$. The mean scores are above the criterion mean of 2.50. This revealed that technical and vocational education will provide employable and productive skills to its citizens help to change negative attitudes on the citizens and inculcate positive attitudes which will bring in national cohesion and eradicate social vices. Technical and vocational education can lead to creativity, skillfulness and productivity which in turn lead to national cohesion and global competitiveness.

Research Question 3: In what ways can the challenges facing technical and vocational education programmes in Rivers State be managed for national cohesion and global competitiveness?

Table 3: Mean and Standard Deviation of Directors and Principals' opinion on the ways that the Challenges facing Technical and Vocational Education Programmes in Rivers State can be managed for National Cohesion and Global Competitiveness.

S/N	Items	Directors		Principals		$\bar{x}$	Decision
		$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	
11.	Better resources or fund need to be allocated to technical and vocational education.	2.70	.72	2.79	.71	2.74	Agree
12.	Qualified and well paid vocational training personnel and school management should be provided in technical and vocational schools in Rivers State.	3.50	.98	3.51	.99	3.50	Agree
13.	Functional and well equipped laboratories and workshops should be provide in technical and vocational at schools in Rivers State.	3.21	.93	3.34	.95	3.27	Agree
14.	Enlightenment campaign should be embarked the relevance of vocational education to national and global competitiveness	2.80	.73	2.98	.90	2.89	Agree
15.	Technical and vocational education should not leaving to abroad (eliminating brain drain)	3.16	.91	3.04	.90	3.10	Agree
	Aggregated mean	3.04		3.13		3.08	

The data in table 3 show that the calculated mean scores of items 11,12,13, 14 and 15 are, $\bar{x} = 2.74$, $\bar{x} = 3.50$, $\bar{x} = 3.27$, $\bar{x} = 2.89$ and $\bar{x} = 3.10$. The mean scores are above the criterion mean of 2.50. This indicates that the ways of managing the challenges facing technical and vocational education in Rivers State for national cohesion and global competitiveness are provision of resources or fund, qualified and well paid vocational training personnel and school managers; functional and well equipped laboratories and workshops, enlightenment campaign on the usefulness of vocational education and elimination of brain drain.

Hypothesis 1: There is no significant difference between the mean ratings of directors and principals' opinion on the challenges facing technical and vocational education programme in Rivers State.

Table 4: z-test analysis of the significant difference between the mean ratings of directors and principals opinion on the challenges facing technical and vocational education programme in Rivers State.

Variables	N	$\bar{x}$	SD	Df	Cal. Z-value	Critical z-value	Decision
Directors	30	3.01	.84	113	0.56	±1.96	H0 1 Accepted
Principals	85	2.96	.83				

In table 4 above, the data show that the calculated z-value of 0.56 is less than the critical z-value of ±1.96 at 0.05 significant level. Since the z-calculated value is less than the z-critical value, the hypothesis is accepted. There is no significant difference between the mean ratings of directors and principals on the challenges facing technical and vocational education programme in Rivers State.

Hypothesis 2: There is no significant difference between the mean ratings of Directors and principals on how technical and vocational education in Rivers State can leads to national cohesion and global competitiveness.

Table 5: z-test analysis of the significant difference between the mean ratings of Directors and principals opinion on how technical and vocational education programme in Rivers State can lead to National cohesion and global competitiveness.

Variables	N	$\bar{X}$	SD	Df	Cal. Z-value	Critical z-value	Decision
Directors	30	3.04	.88	113	0.48	±1.96	H0 2 Accepted
Principals	85	3.01	.89				

In table 5 above, the data show that the calculated z-value of 0.48 is less than the critical z-value of ±1.96 at 0.05 significant level. Since the z-calculated value is less than the z-critical value, the hypothesis is accepted. There is no significant difference between the mean ratings of directors and principals on how technical and vocational education in Rivers State can lead to national cohesion and global competitiveness.

Hypothesis 3: There is no significant difference between the mean ratings of Directors and Principals on the ways of managing the challenges facing technical and vocational education programmes in Rivers State for national cohesion and global competitiveness.

Table 6: z-test analysis of the significant difference between the mean ratings of Directors and principals on ways of managing the challenges facing technical and vocational education programmes in Rivers State for national cohesion and global competitiveness.

Variables	N	$\bar{X}$	SD	Df	Cal. Z-value	Critical z-value	Decision
Directors	30	3.04	.85	113	0.54	±1.96	H0 3 Accepted
Principals	82	3.13	.89				

In table 6 above, the data show that the calculated z-value of 0.54 is less than the critical z-value of ±1.96 at 0.05 significant level. Since the z-calculated value is less than the z-critical value, the hypothesis is accepted. There is no significant difference between the mean ratings of directors and principals on ways of managing the challenges facing technical and vocational education or national cohesion and global competitiveness.

A) The Challenges facing Technical and Vocational Education

The study revealed that the challenges facing technical and vocational education in Rivers State are, inadequate funding, no equipped workshops and laboratories, strong dislike for the programme, no better payment for technical education teachers and the issue of brain drain. This finding agrees with Momoh (2012) and Mohammed (2001) as cited in Okoye and Aimonu (2006) who observed that government

lack of commitment to technical and vocational education, and inadequate funding has weaken technical and vocational education in Nigeria. the finding also agrees with Okoye and Arimonu (2016) who noted that apathy and strong like for technical education is another challenge facing the programme, and that technical and vocational education has been grossly neglected in Nigeria.

B) Technical and Vocational Education, National Cohesion and Global Competitiveness

The study revealed that technical and vocational education will provide employable and productive skills to its citizens, help to change negative attitudes on the citizens and inculcate positive attitudes that will bring in national cohesion and eradicate social vices. Technical and vocational education can lead to creativity, skillfulness and productivity which in turn leads to national cohesion and global competitiveness.

This finding is in line with Kanu (1999) as cited in Sadiq, Kire and Kwairanga (2006) when he asserts that education is capable of bringing about change of negative attitudes and values of a people and can be used to inculcate in them positive attitude of cooperation and national consciousness which cuts across regional and state boundaries. The finding is also in line with Ukeje (1996) in Omenkeukwu (1998) as cited in Sadiq, Kire and Kwairanga (2006) who stated that vocational/technical education is an engine that generates creativity and skillfulness. When a nation is creative and skillful, that nation can be globally competitive.

C) Managing the Challenges facing Technical and Vocational Education Programme for National Cohesion and Global Competitiveness

The study revealed that the ways of managing the challenges facing technical and vocational education in Rivers State for national cohesion and global competitiveness are provision of resources or find, provision of qualified and well paid vocational training personnel and school managers; provision of functional and well-equipped laboratories and workshops, embarkment on enlightenment campaign on the usefulness of technical and vocational education and the elimination of brain drain. This finding corroborates Okoye and Arimonu (2016) who recommended that adequate resources should be allocated to technical and vocational education to provide essentials such as equipped laboratories and workshop, relevant textbooks and training materials. The finding also corroborates Okolocha (2012) who stated that for vocational education to meet the economic, social and political trends of the time, the nation must use qualified vocational training professional teachers in implementing vocational technical education programme. Furthermore, Sadiq, Kire and Kwairanga (2006) supported this finding when they recommended that government should embark on an aggressive enlightenment campaign on the relevance of vocational technical education, so that Nigerians should be made to appreciate dignity in labour.

6. Conclusion

The study concluded that the challenges facing technical and vocational education can be managed to achieve the objectives and goals which is the production of creative, skillful and productive citizen in Rivers State. In this regard other states in Nigeria can toe the path of Rivers State. This will lead to poverty eradication, self-reliance, disciplined society, wealth generation and reduction of employment.

In this direction, fostering national cohesion and global competitiveness can be realized.

7. Recommendations

- Rivers State government should ensure that adequate fund is allocated to technical and vocational schools for the provision of well-equipped workshops and laboratories.
- Rivers State government should ensure that technical and vocational education teachers and school managers are well remunerated in order to eliminate brain drain.
- Rivers State government and school managers should regularly embark on enlightenment campaign to inform the citizens on the usefulness of technical and vocational education.
- Rivers State government and school manager should ensure that appropriate maintenance culture is provided to the existing facilities in technical and vocational schools.
- Technical and vocational school managers should regularly organize workshops, and seminars to train and re-train teachers and workshop instructors on the innovation in technical and vocational subjects.
- Rivers State government and vocational school manager should ensure that there is collaboration between technical and vocational schools with stakeholders and companies to make students training environment relevant with subsequent working environment.

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