Contemporary Issues in Funding Technical Education Programmes in Nigerian Universities

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ABSTRACT
This study examined the contemporary issues in funding of Technical Education programmes in Nigerian universities. Two research questions and 2 hypotheses guided the study. Survey research design was used in this study. The population of the study was 32 Heads’ of Department (H.O.D) of Technical Education programme in 20 Nigerian universities offering Technical Education programmes. No sampling was done rather all the 32 H.O.D were used as sample of the study. The instrument for data collection was a 4-point scale questionnaire which was validated by 3 lecturers from Delta State University, Abraka. To ascertain the reliability of the questionnaire 10 copies were administered on 10 Technical Education lecturers from Federal College of Education (Technical) Asaba and data collected were analysed using Cronbach’s alpha techniques which yielded a reliability coefficient of 0.72 reliability coefficient. Data were collected by the researcher through 6 research assistants. Mean was used for research questions, while t-test was used to test the hypotheses at .05 level of significance. The findings from the study revealed that the expensive nature and importation of Technical Education machines and facilities were challenges to funding Technical Education programmes. Furthermore, the study revealed that the funding related challenges to Technical Education can be addressed through partnering with industries to build and equip Technical Education workshops/laboratories, as well, the H.O.Ds should establish and run consultancy services, and introduce development levies for students. Hence, it was recommended that Technical Education programmes can be effectively funded using alternative sources and approaches of funding Technical Education programmes in Nigerian universities.

INTRODUCTION
Technical education, as enshrined in the Nigerian national policy on education, is concerned with qualitative technological human resources development directed towards a national pool of skilled and self-reliant craftsmen, technicians and technologists in technical and vocational education fields. In Nigeria, the training of technical personnel has witnessed many challenges ranging from policies which have

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no beaming with our problems, curriculum that has little or no relationship with workplace and social needs, embezzlement of fund meant for education development purposes, lack of teacher motivation, inadequate facilities, inadequate funding, brain drain, poor staff training, bribery and corruption (Okoye & Arimonu, 2016).

Okoye and Arimonu (2016) citing Uwaifo (2009), opined that technical education is the training of technically oriented personnel who are to be the initiators, facilitators and implementers of technologically development of a nation. Uwaifo posited that this training of its citizens on the need to be technologically literate would eventually lead to self-reliance and sustainability. As well, technical education contributes so much ranging from electrical and electronics technology, metal work technology, mechanical/automobile technology, building technology, woodwork technology etc, technical education is practical oriented education which makes it unique in its content and approach thereby demanding special attention (Okoye & Arimonu, 2016).

Okoye and Arimonu (2016) citing May (2007) observed that technical and vocational education are very much still neglected in the aspect of adequate funding, personnel, modern facilities, staff motivation which consequently are robbing the country of the economic development to be contributed by graduates of technical/vocational education. Oranu (2004) observed that the good intentions of successive Nigerian governments about TVE programmes are still fraught with a lot of challenges which include; inadequate funding and inadequate facilities. Inadequate funds affect the provision of essentials such as well-equipped laboratories and workshops, relevant textbooks and training manuals. According Offiong, Akpan, & Usoro (2013) proper funding of Technical Education need not be over emphasized if Nigeria is to provide for adequate training of persons who can proffer solution to our industrial apathy and technological backwardness. The poor funding is shown in ill-equipped, workshops, laboratories, farms, and typing pools/computer laboratories in the schools. Definitely the goal of Vocational and Technical Education cannot be achieved without them (Offiong, Akpan, & Usoro, 2013). Most technical education departments in Nigerian Universities do not have laboratories or workshop space, let alone useable equipment and where they exist, they are grossly inadequate, as the workshops only have items or equipment that were provided when the departments were first established of which most of them are already obsolete or grounded (Ojimba, 2012). The available facilities, programme as at today are inadequate quantitatively and qualitatively and besides they are outdated. Oryem Origa (2005) opined that only 40% of institutions of Higher Education in Nigeria have laboratory or workshop space for technical education programmes. The remaining 60% do not have laboratory or workshop space and this has resulted to the low quality of technology programmes in our higher institutions.

Idialu and Idialu (2011) citing World Bank (1994), reported that the equipment for teaching, research and learning in Nigerian tertiary institutions are either lacking or very inadequate, as well, in a bad shape to permit the institutions the freedom to carry out the basic functions of academics. In same vein, National Universities Commission (NUC, 2004) stated that the Presidential Visitation Panels which looked into the operations of all federal universities between 1999 and 2003 reported that physical facilities in the universities were in deplorable condition. This inadequacy of resources according to Ajayi and Ayodele (2002) is as an offshoot of the endemic financial crises in the sector.
Funding has been the bane of education in Nigeria, the global economic recession eventually came to complicate the matter (Offiong, Akpan, & Usoro, 2013). The funding of academic institutions has always been a problematic issue irrespective of the economic environment within which the institutions operates. Furthermore, Imhabekhai & Tonwe, (2001) also highlighted that currently, universities education at present is underfunded, inadequate funding put the university management under stress and strains hence they are incapacitated in providing essential services. According Offiong, Akpan, & Usoro (2013) the poor funding is shown in ill-equipped, workshops, laboratories, farms, and typing pools/computer laboratories in the schools.

Similarly, Oyeneye (2006) and Adegbite (2007), posited that the major challenge facing the management of tertiary institutions in Nigeria is inadequate funding. According to Idialu and Idialu (2011), the problem of underfunding which is a major challenge confronting the Nigerian tertiary institutions has had adverse effects on their performance. The Nigerian government finds it difficult to sufficiently fund her tertiary institutions because of the growing enrolments without a corresponding impressive quality funding due to economic depression. Buttressing these assertions Akinsanya (2007) posited that the financial constraint in the country has made education to suffer. Government may not be able to fund tertiary education effectively and efficiently due to inaccurate statistics to plan our economy and prevalent economic crises.

Oghenekohwo (2004) classified the funding of higher education into two regimes namely:

i. Pre-deregulation regime: In the pre-deregulation regime, higher education funding in Nigeria was done by government or public funding alone. High priority was accorded to funding higher education, thereby creating a wrong impression amongst Nigerians that funding of higher education is the exclusive preserve of "governments.

ii. Deregulation regime: the deregulation regime, which is mostly a post Structural Adjustment Programme (SAP) inevitability, things began to change. The benefits of the acquisition of any higher education programme now went largely to the individual as a "private good" for which beneficiaries and their families should pay (Schuttz, 1961; Psacharopoulos 1984; Babalola 1995; Adedeji 2003; Okebukola 2003). In the submission of Okebukola (2003), he noted that "an additional concomitant of the 'private good' is that, grants have been changed to loans, pacing major burdens on many university graduates".

Funding of university education include in Fund from owner government; Tuition and fees; Gifts, Grants and Endowments; Investment income; Auxiliaries (Enterprises, Licenses, Parents and Alumni Association); Consultancies and Research activities; and Community Participation (Akinsayan, 2007). Others include; Support from federal and state governments constituting more than 98% of the recurrent costs and 100% of capital cost (Ogunlade, 1989) and international aids from international organizations. For example, the World Bank has financed a US$120 million project titled: Federal Universities Development Sector Operation (Odebyiyi & Aina, 1999; Babalola, Sikwibele, & Suleiman, 2000). Institutions of higher learning in the developed world and to some extent in developing countries including Nigeria, are constantly exploring ways of achieving financial self-sufficiency. This is supported in the Nigerian National Policy on
Education (Section 8:2004, revised) stating “Universities and other tertiary institutions are encouraged to explore other sources of funding such as endowments, consultancy services and commercial ventures” (Bagiwa, 2013).

However, developing countries have acknowledged that investment in and adequate funding of higher education are viable, conditions that facilitate change since the value of education hinges on teaching, learning, research and the production of qualified personnel which are needed for national development (UNESCO, 2002 cited by Akinsanya, 2007). Institutions of higher learning in the developed world and to some extent in developing countries including Nigeria, are constantly exploring ways of achieving financial self-sufficiency. This is supported in the Nigerian National Policy on Education (Section 8:2004, revised) stating “Universities and other tertiary institutions are encouraged to explore other sources of funding such as endowments, consultancy services and commercial ventures” (Bagiwa, 2013).

The financing of education should be the function of all the major stakeholders. There are many stakeholders involved in the success of any educational system. The major stakeholders include the governments, educational institutions, parents/guardians and the private sector that employs the output of these institutions. Others include the students and the society in general. This is because government alone cannot fund higher education (Akinsayan, 2007). Furthermore, Akinsayan (2007) posited that the financial constraints in the country have made education to suffer. Government may not be able to fund higher education effectively and efficiently due to inaccurate statistics to plan our economy and prevalent economic crises. To sustain higher education in the country, all stakeholders must become involved in the financing parents and guardian, the society in general, the private sector and non-governmental agencies. The education sector can only approach the optional in provision and production when every stakeholder strives to do its part on the financing of higher education in Nigeria.

In same vein, Idialu and Idialu (2011) to sustain tertiary education in the country, all stakeholders which include parents and guardian, the society in general, the private sector and non-governmental agencies must become involved in the financing. Furthermore, to improve quality of resources, Nigerian tertiary institutions have embraced commercial ventures in response to government’s mandate that each tertiary institution must generate at least 10percent of its total revenue. The commercial ventures which are of different kinds include: consultancies, petrol stations, bookshops, publishing houses, schools, hotels etc. As well, other researchers have suggested partnership to improve funding of tertiary institutions. According to Ahmed (2011), Partnerships between the public sector and private companies (PPP) for the finance, design, build and maintain infrastructure and delivery of associated services are means of meeting the need for modern, efficient infrastructure and for reliable cost effective delivery of public services.

Furthermore, Offiong, Akpan, & Usoro (2013) recommended among others, the need for endowment fund raising by educational institutions for the provision of facilities and equipment for Vocational and Technical Education Training, establishment of a cordial school/community liaison to raise funds to promote Vocational and Technical Education as well as that the Parents-Teachers Association and the Alumni Association should help out through cash and kind donation to foster Vocational Education Training in Nigeria. According Offiong, Akpan, & Usoro (2013), since it has been clear that Government cannot single
handedly fund Technical Education, it becomes imperative to explore the avenue of public-private-partnership (PPP) for effective implementation of technical education programme. Other alternative sources of funding exists that can be explored for the improving the quality of technical education. These include: Endowment Fund; Collaboration with Companies and Non-Governmental Organizations; Establishment of Internally Generated Revenue Projects; Parents-Teachers Association (PTA); and Alumni Association.

Technical Education programme at the university level is cost intensive due to types of machines and equipment needed to impart occupational skills to would be technicians. These machines and equipment are expensive, as well require regular maintenance and repair to avoid total breakdown. These have contributed to the inadequate provision of machines and equipment for effective implementation of Technical Education programme in Nigerian universities. In addition, the current state of Nigerian economy due to the persistence fall in oil revenue which is the major source of revenue of the nation Nigeria. This to some extent has affected the education budget of the nation. For effective implementation of Technical Education programme, there must be adequate provision of the required infrastructural facilities and equipment which government at this present state of her economy cannot provide, it is on this not that this present study seeks to identify the strategies that can be used to address the contemporary issues of funding Technical Education programme in Nigeria in the face of economic meltdown.

Purpose of the Study

The major purpose of the study is to examine the contemporary issues of funding technical education programme in universities in Nigeria. Specifically, the study seeks to identify the:

i. Contemporary challenges of funding technical education programme in universities in Nigeria.

ii. Strategies to address the contemporary challenges of funding technical education programme in universities in Nigeria.

Research Questions

The following research questions guided the study:

i. What are the contemporary challenges of funding technical education programme in universities in Nigeria?

ii. What are the strategies to address the contemporary challenges of funding technical education programme in universities in Nigeria?

Hypotheses

The following hypotheses were tested at .05 level of significance:

i. There is no significant difference in the mean response of H.O.Ds from Federal and State Universities on the contemporary challenges of funding technical education programme in universities in Nigeria.

ii. There is no significant difference in the mean response of H.O.Ds from Federal and State Universities on the strategies to address the contemporary challenges of funding technical education programme in universities in Nigeria.
METHODOLOGY
Survey research design was used in this study. The population of the study was 32 Heads’ of Department (H.O.D) of Technical Education programme in 20 Nigerian universities offering Technical Education programmes. No sampling was done rather all the 32 H.O.D (comprising of 14 and 18 H.O.D from federal and state universities respectively) were used as sample of the study. The instrument for data collection was a 4-point scale questionnaire titled ‘Contemporary Issues in Funding Technical Education Questionnaire CIFTEQ’. The questionnaire has two part A and B, part A is on the bio data of the respondent, while part B has 2 sections based on the research questions with five items respectively. The CIFTEQ was validated by 3 lecturers from Delta State University, Abraka. To ascertain the reliability of the questionnaire 10 copies were administered on 10 Technical Education lecturers from Federal College of Education (Technical) Asaba and data collected were analysed using Cronbach alpha techniques which yielded a reliability coefficient of 0.72 reliability coefficient. Data were collected by the researcher through 6 research assistants. Mean was used for research questions, while t-test was used to test the hypotheses at .05 level of significance. Any mean rating of 2.50 and above were judge to be Agree, and mean rating below 2.50 were judge to be Disagree. Also, when t calculated is less than t critical, the hypothesis will be accepted and if t calculated is greater than t critical, the hypothesis will be rejected.

RESULTS AND DISCUSSION
The results were presented based on research questions and hypotheses:

Research Question 1: What are the contemporary challenges of funding technical education programme in universities in Nigeria?

Table 1: Shows the Mean Response of H.O.Ds on the contemporary challenges of funding technical education programme in universities in Nigeria

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Statement: What are the contemporary challenges of funding technical education programme in universities in Nigeria?</th>
<th>Federal (N=14)</th>
<th>State (N=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Remark</td>
</tr>
<tr>
<td>1.</td>
<td>Expensive nature of Technical Education machines and equipment</td>
<td>3.05</td>
<td>Agreed</td>
</tr>
<tr>
<td>2.</td>
<td>Most Technical Education and equipment are produced and imported from developed countries</td>
<td>3.52</td>
<td>Agreed</td>
</tr>
<tr>
<td>3.</td>
<td>Poor relationship between Technical Education institutions and industries</td>
<td>3.76</td>
<td>Agreed</td>
</tr>
<tr>
<td>4.</td>
<td>Poor budget regarding Technical Education programme in Nigerian universities</td>
<td>3.00</td>
<td>Agreed</td>
</tr>
<tr>
<td>5.</td>
<td>Low enrollment in Technical Education programme in Nigerian universities</td>
<td>3.01</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>Grand Mean</td>
<td>3.27</td>
<td></td>
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</table>
Table 1 revealed that the contemporary challenges of funding technical education programme in universities in Nigeria include: Expensive nature of Technical Education machines and equipment; Most Technical Education and equipment are produced and imported from developed countries; Poor relationship between Technical Education institutions and industries; Poor budget regarding Technical Education programme in Nigerian universities; and Low enrollment in Technical Education programme in Nigerian universities. This is in agreement in previous studies such as Okoye and Arimonu (2016) citing May (2007) observed that technical and vocational education are very much still neglected in the aspect of adequate funding, personnel, modern facilities, staff motivation which consequently are robbing the country of the economic development to be contributed by graduates of technical/vocational education. As well, the poor funding is shown in ill-equipped, workshops, laboratories, farms, and typing pools/computer laboratories in the schools. Definitely the goal of Vocational and Technical Education cannot be achieved without them (Offiong, Akpan, & Usoro, 2013). Idialu and Idialu (2011) citing World Bank (1994), reported that the equipment for teaching, research and learning in Nigerian tertiary institutions are either lacking or very inadequate, as well, in a bad shape to permit the institutions the freedom to carry out the basic functions of academics. In same vein, National Universities Commission (NUC, 2004) stated that the Presidential Visitation Panels which looked into the operations of all federal universities between 1999 and 2003 reported that physical facilities in the universities were in deplorable condition. This inadequacy of resources according to Ajayi and Ayodele (2002) is as an offshoot of the endemic financial crises in the sector.

**Research Question 2:** What are strategies for addressing the contemporary challenges of funding technical education programme in universities in Nigeria?

<table>
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<tr>
<th>S/N</th>
<th>Item Statement: What are the strategies for addressing the contemporary challenges of funding technical education programme in universities in Nigeria?</th>
<th>Federal (N=14)</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Remark</td>
<td>Mean</td>
</tr>
<tr>
<td>1.</td>
<td>Partnering with industries to fund Technical Education programme such as building and equipping of Technical Education workshops/laboratories in Nigerian universities</td>
<td>3.65</td>
<td>Agreed</td>
</tr>
<tr>
<td>2.</td>
<td>Payment of development levies by students of Technical Education programme in Nigerian universities</td>
<td>3.45</td>
<td>Agreed</td>
</tr>
<tr>
<td>3.</td>
<td>Appealing to stakeholders such as banks, industries, individual, and international organization for grant to</td>
<td>3.71</td>
<td>Agreed</td>
</tr>
</tbody>
</table>
Table 2 revealed that, the strategies for addressing the contemporary challenges of funding technical education programme in universities in Nigeria include: Partnering with industries to fund Technical Education programme such as building and equipping of Technical Education workshops/laboratories in Nigerian universities; Payment of development levies by students of Technical Education programme in Nigerian universities; Appealing to stakeholders such as banks, industries, individual, and international organization for grant to fund Technical Education programme in Nigerian universities; Running of consultancy services by Technical Education departments in Nigerian universities; and Sales of products produced in Technical Education departments in Nigerian universities. These findings are in agreement with previous studies.

Institutions of higher learning in the developed world and to some extent in developing countries including Nigeria, are constantly exploring ways of achieving financial self-sufficiency. This is supported in the Nigerian National Policy on Education (Section 8:2004, revised) stating “Universities and other tertiary institutions are encouraged to explore other sources of funding such as endowments, consultancy services and commercial ventures” (Bagiwa, 2013). Similarly, the financing of education should be the function of all the major stakeholders. There are many stakeholders involved in the success of any educational system.

The major stakeholders include the governments, educational institutions, parents/guardians and the private sector that employs the output of these institutions. Others include the students and the society in general. This is because government alone cannot fund higher education (Akinsayan, 2007). In same vein, Idialu and Idialu (2011) to sustain tertiary education in the country, all stakeholders which include parents and guardian, the society in general, the private sector and non-governmental agencies must become involved in the financing. Furthermore, to improve quality of resources, Nigerian tertiary institutions have embraced commercial ventures in response to government’s mandate that each tertiary institution must generate at least 10percent of its total revenue. The commercial ventures which are of different kinds include: consultancies, petrol stations, bookshops, publishing houses, schools, hotels etc. As well, other researchers have suggested partnership to improve funding of

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<tr>
<td></td>
<td>Federal (N=14)</td>
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<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>fund Technical Education programme in Nigerian universities</td>
</tr>
<tr>
<td>2</td>
<td>Running of consultancy services by Technical Education departments in Nigerian universities</td>
</tr>
<tr>
<td>3</td>
<td>Sales of products produced in Technical Education departments in Nigerian universities</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Mean</strong></td>
</tr>
</tbody>
</table>
tertiary institutions. According to Ahmed (2011), Partnerships between the public sector and private companies (PPP) for the finance, design, build and maintain infrastructure and delivery of associated services are means of meeting the need for modern, efficient infrastructure and for reliable cost effective delivery of public services. Furthermore, Offiong, Akpan, & Usoro (2013) recommended among others, the need for endowment fund raising by educational institutions for the provision of facilities and equipment for Vocational and Technical Education Training, establishment of a cordial school/community liaison to raise funds to promote Vocational and Technical Education as well as that the Parents-Teachers Association and the Alumni Association should help out through cash and kind donation to foster Vocational Education Training in Nigeria.

Hypothesis 1: There is no significant difference in the mean response of H.O.Ds from Federal and State Universities on the contemporary challenges of funding technical education programme in universities in Nigeria.

Table 3: t-test analysis of significant difference in the mean response of H.O.Ds from Federal and State Universities on the contemporary challenges of funding technical education programme in universities in Nigeria.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-cal</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.O.D Federal Universities</td>
<td>5</td>
<td>3.27</td>
<td>0.35</td>
<td>0.515</td>
<td>Accept</td>
</tr>
<tr>
<td>H.O.D State Universities</td>
<td>5</td>
<td>3.36</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Df=8, t-crit=1.860

Table 3 revealed that t-cal (0.515) is less than t-crit (1.860), therefore hypothesis 1 was accepted, this implies that the hypothesis 1 which stated that there is no significant difference in the mean response of H.O.Ds from Federal and State Universities on the contemporary challenges of funding technical education programme in universities in Nigeria.

Hypothesis 2: There is no significant difference in the mean response of H.O.Ds from Federal and State Universities on the strategies to address the contemporary challenges of funding technical education programme in universities in Nigeria.

Table 4: t-test analysis of significant difference in the mean response of H.O.Ds from Federal and State Universities on the strategies to address the contemporary challenges of funding technical education programme in universities in Nigeria.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-cal</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.O.D Federal Universities</td>
<td>5</td>
<td>3.50</td>
<td>0.23</td>
<td>0.121</td>
<td>Accept</td>
</tr>
<tr>
<td>H.O.D State Universities</td>
<td>5</td>
<td>3.52</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Df=8, t-crit=1.860

Table 4 revealed that t-cal (0.121) is less than t-crit (1.860), therefore hypothesis 2 was accepted, this implies that the hypothesis 2 which stated that there is no significant difference in the mean response of H.O.Ds from Federal and State Universities on the strategies to address the contemporary challenges of funding technical education programme in universities in Nigeria.
CONCLUSION

Based on the findings of this study, it was concluded that the contemporary issues in the funding of Technical Education programmes in Nigerian universities is as a result of inadequate funding due to the persistent fall in oil revenue and inability of administrators of Technical Education programme to established working relationship with Technical Education stakeholders to improve funding of Technical Education programme in Nigerian universities. As well, the study revealed that partnering with industries, payment of development levies by students of Technical Education, appealing to stakeholders for grant to fund Technical Education programme, and running of consultancy services by Technical Education departments in Nigerian universities will help to address the funding challenges of Technical Education programme in Nigerian universities.

RECOMMENDATIONS

The following recommendations were made:

i. Government should encourage stakeholders such as banks, industries, individual, and international organization to assist Technical Education departments in Nigerian universities in the provision of infrastructural facilities, machines, and equipment.

ii. Administrators of Technical Education programmes should establish partnership with manufacturing industries for the purpose of supplying machines and equipment at cheaper rate.

iii. Heads’ of Department of Technical Education programme of Nigerian universities should run a consultancy unit to generate revenue internally for the purpose of improving funding of Technical Education programme.

REFERENCES


