



# **Diversification of Sources of Funding University Education for Sustainability: Challenges and Strategies for Improvement**

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## **Authors' contributions**

*This paper was written cooperatively by both authors. Author UIE wrote the introduction, statement of the problem and discussion of findings. Author OEO designed the instruments and did the statistical analysis. Both authors read and approved the final manuscript.*

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## **ABSTRACT**

Universities in Nigeria have been embarking on aggressive diversification of funding sources in order to sustain their programmes in the face of dwindling budgeting allocation to higher institutions. The diversification, though successful, has its own challenges. This paper examines the diversification of funding sources and the accompanying challenges. Descriptive survey design was utilized in this study. Three research questions were raised for the study. The sample of the study comprised 480 academic staff which were drawn from four federal universities in south-south Nigeria. An instrument titled "Diversification of Funding Sources Questionnaire (DFSQ)" was developed by the researchers, validated and used for data collection. The reliability index of the instrument was 0.83. Data collected were subjected to analysis using descriptive statistics, means and standard deviations. Findings revealed some of the diversified sources of funding to include: consultancy services, commercialization of physical facilities, part-time degree programmes among others. Findings also indicated the challenges to include mismanagement of funds, poor attitude of staff, increased students' population which affects the staff-students' ratio, and lack of

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entrepreneurial culture. Recommendations were made that there should be strict adherence to financial regulations in the management of financial resources and admission intake into consultancy programmes should be regulated and controlled.

*Keywords: Universities; funding sources; diversification; sustainability; challenges.*

## 1. INTRODUCTION

University education in Nigeria is currently experiencing serious financial crisis. This is apparent because budgetary allocation for the Nigerian educational sector has been on the decline. The federal government has not been able to meet the 26% recommended by UNESCO. The situation has been aggravated largely due to the economic recession that the nation is facing and more so with increasing competition of education with other sectors for public monies. Federal budgetary allocation to education sector during the period 2004-2013 indicate the following fluctuations; 2004, 10.5%; 2005, 9.3%; 2006, 11.00%; 2007, 8.09%; 2008, 13.0%; 2009, 6.54%; 2010, 6.40%, 2011, 1.69; 2012, 10.0% and 2013, 8.70% [1]. While the cost of funding education has continued to increase in line with the quantitative growth and demand for university education, universities have been receiving less and less of government allocations over their estimated expenditure. Ali [2] noted that over the last two decades, "the overall statutory allocations to universities has shown progressive decline". Johnstone [3] had earlier noted that the cost of funding higher education was rising faster than the ability of government to pay. It is likely that the problem of underfunding may continue to persist. Hence, there has been repeated calls for universities to innovate their funding sources in form of diversification. Of course, such a call for diversification is not limited to Nigerian higher education alone, since experiences from other nations indicate that it has become a global trend [4,5,6,7].

Babalola [8], emphasizing the need for diversifying sources of funding tertiary education, noted that today's world requires that higher institutions of learning seek innovative ways of financing responsibilities. Koryakina, Teixeira and Sarrico [9], averred that revenue diversification activities were recognized as drivers of institutional dynamics and development. Also, Maisaiti [7] argued that diversification of revenue sources has the potential of stabilizing universities by reducing their vulnerability to fluctuations associated with government financing. Similarly, Todowede [10],

supporting the need to diversify the financing of higher education, observed that the political, social and economic factors, which are currently having significant impact on the world economy have necessitated the need to diversify the resources of education funding, since the reliance on a single source of revenue can inhibit educational growth. However, sustenance of higher education in Nigeria requires all stakeholders which include parents, guardians, students, the civil society, the private sector and non-governmental agencies and the general public to be involved.

The term diversification denotes the generation of additional income through new funding sources that contribute to enhance the income structure of an institution. Diversification of funding sources requires that higher institutions of learning generate their own finances. Since the late 1990s when there was a diversification call by the Federal Government (through the National Universities Commission, (NUC) as a way of ending the perennial financial crises in Nigerian Universities), all Federal Universities were directed to generate 10% of their total yearly funds internally. In the face of declining funding for higher education, most Nigerian universities since the late 1990s had embarked on various strategies for sourcing more revenue to sustain their programmes. Such alternative modes, according to Ekpoh, Ukpong and Edet [11] include: providing consultancy services, hiring out of university facilities, establishment of universities farms, lease of university lands for private developers, expanded sources of endowment earnings, establishment of small and medium scale industries, commercialization of university sport facilities, hotel services and so on.

Adequate funding is a prerequisite to sustainability of university education in Nigeria. Inadequate funding can seriously destabilize the university system in realizing sustainability of its programmes and other activities. Revenue diversification according to World Bank [12] is one mechanism that could be used to improve sustainability of higher educational institutions. Sustainability of Nigerian universities is a

necessity, even more so in the present times, due to the dynamics of our changing society. This need is borne out of the desire to respond to the demands of globalization of equipping present and future generations with the knowledge, attitudes, values and skills to cope with the challenges which lie ahead of them in the era of global competitiveness.

Sustainability refers to the ability to support, maintain and keep something intact and functioning properly. For the university system, their sustainability involves the need to maintain and enhance academic programmes, the learning environment and the school curriculum as they are major instruments through which universities carry out their functions of inculcating knowledge, values and skills, in order to equip their product to cope with future challenges.

As part of a globalized world, there is an urgent reality of adequately financing higher education in Nigeria to meet world class standards and competitive academic environment. Thus, the drive to diversify and attract more funds to universities cannot be overemphasized. The benefits of internally generated revenue other than government sources are enormous. Such money can be used for non-salaried instructional items, such as pedagogical materials, textbooks and laboratory supplies [13]. However, the current drive is not without challenges. There are some salient issues that need to be considered while pursuing funding diversification. Sanyal and Martin [14] have pointed out that “diversification of funding sources, with reduction of government responsibility, will lead to a rise in higher education cost and further widen inequality of opportunities”. Teixeira and Koryakina [4] have also noted that funding diversification has “seldom lived up to the rhetorical expectations of marketization and privatization that have often triggered policy reforms”.

There is apprehension that entrepreneurial initiatives undertaken by universities have the potential of diverting faculty's focus away from the institution's core activities to those they might not otherwise pursue. Court [15] raised initial concerns as to the consistency of entrepreneurial activities with universities' role. In view of this, Clark [16] cautioned that diversified income even though essential should be pursued with “a holistic approach, in which academic criteria should take precedence over financial consideration”. Similarly, Omole [17] observed that, “while universities are contributing to

recurrent cost, the culture of academia must remain sacrosanct”. Noting further that, whereas the universities can take their services and intellectual properties to the market, it must not make the universities a market place, polluting the physical and intellectual environment by selling all kinds of facilities to the public, encouraging unsavory human and vehicular traffic on campus.

Alternative sources of funding university education have been extensively researched by many scholars. However, there is little or no empirical research findings on the challenges of diversification of funding sources of tertiary education in Nigeria. This study therefore seeks to fill this gap. It was on this premise that the researchers were motivated to investigate on the topic, diversification of funding sources of university education for sustainability: challenges and strategies for improvement.

## **2. STATEMENT OF THE PROBLEM**

Nigerian universities are in serious financial crises because there is a continuous decline in government funding of universities amidst increased cost of administering education. Due to inadequate funding, most universities' transactions are truncated. For some time now staff salaries are not paid in full and sponsorship of staff to conferences has become a teething problem. Staff promotion does not come with immediate financial benefits and libraries are without current books and journals. Similarly, capital projects on campuses are suspended while existing infrastructures are hardly maintained, and so on. Consequent upon the dwindling budgetary allocation to public universities by the Federal Government and the inability of universities to adequately fund their programmes, there are calls for the diversification of sources of revenue. As a response to these calls, the universities initiated various alternative modes of sourcing for revenue. Today, many Nigerian universities are beehives of activities, sourcing for revenue. However, though most of these initiatives have achieved much successes, there are some challenges which tend to negate the intended purpose of diversifying sources of funding universities. There is apprehension that some of the modes of funding sources will divert the universities' focus from their core functions of teaching, research and community service to revenue collectors. Also, managers of tertiary institutions are accused of not utilizing the

internally generated funds properly. It is against this backdrop, that this study is carried out to examine the issue of diversification of sources of funding university education for sustainability.

### **3. RESEARCH QUESTIONS**

The study was guided by these research questions;

- To what extent have universities diversified their funding sources?
- What are the challenges of diversifying sources of funding university education?
- What are the strategies to solve the challenges associated with the diversification funding sources university education?

### **4. METHODOLOGY**

The study utilized a survey design to elicit the responses of academic staff from federal universities in South-South, Nigeria. This region comprises six (6) states and each has a federal university. Four (4) universities which are the oldest in the region were used in the study. These are; University of Benin (Founded 1970), University of Calabar (Founded 1975), University of Port Harcourt (Founded 1975) and University of Uyo (Founded 1991). These universities were selected because they are longstanding and have a wide variety of diversified sources of generating revenue internally. One hundred and twenty (120) academic staff were purposely drawn from each of the universities for the study. This gave rise to a sample of 480 respondents which was used for data collection. A-34 item, structured questionnaire titled "Diversification of Funding Sources Questionnaire (DFSQ)" was developed by the researchers for data collection. The instrument comprised two sections, A, and B. Section A comprised demographic information from the respondents, while section B consisted of items that measured funding diversification sources, challenges of diversification and strategies for improvement. In section B, the items had 4 points response options, which ranged from Strongly Agree, Agree to Disagree and Strongly Disagree (4, 3, 2, 1). The respondents were expected to indicate the extent of agreement and disagreement with each of the items.

The instrument was validated by three experts in Measurement and Evaluation. Their comments

were used to restructure the items in the questionnaire. The internal consistency of the items was determined using Cronbach Alpha. The reliability index was 0.83. Copies of the instrument were administered on the respondents in their various universities by the researchers together with trained research assistants. This measure ensured that the respondents completed the questionnaire and a 100 percent return rate was achieved. Data collected were analyzed using means and standard deviations. The criterion measure of the mean score was 2.50 and above. A mean score below 2.50 was regarded as poor and unaccepted. The cut-off mean was obtained by adding up the highest possible score on each item, which is 4, and the lowest possible score, which is one, and dividing it by 2.

### **5. RESULTS AND DISCUSSION**

#### **5.1 Research Question 1**

To what extent has universities diversified their funding sources?

Data collected for research question I were analyzed using descriptive statistics. The result is as shown in Table 1.

Table 1 presents the mean and standard deviation on the extent of diversification of funding sources. The analysis of data shows that one out of 10 strategies of diversification of sources of funding, which is part-time degree programme, has high extent of diversification of sources of funding. Five other strategies, which include; consultancy services, commercialization of physical facilities, commercialization of university services, manufacturing of product and alumni donation have moderate extent of diversification. Four of the diversification strategies which are; industry related research services, technology transfer through patenting, dynamic tuition fee model, and philanthropic donations have low level application. The grand mean of 2.56 was obtained for the ten items, denoting that the extent of diversification of funding sources based on the 10 studied strategies is generally moderate.

#### **5.2 Research Question 2**

What are the challenges of diversifying sources of funding university education?

This research question was answered using means and standard deviation. The results is as shown in Table 2.

students ratio, and lack of managerial skills by programme managers.

**5.3 Research Question 3**

The analysis on Table 2 indicates that items 2, 3, 4,5,6,8 and 10 had mean scores above 2.50. This shows the challenges that universities in south-south Nigeria were experiencing due to funding diversification. These are: managing enterprise as government parastatals, mismanagement of internally generated revenue (IGR) and population explosion on campus, limited screening of intake, imbalanced staff-

What are the strategies to solve the challenges associated with the diversification of sources of funding university education?

Data collected for this research question was analyzed by calculating the mean score and standard deviation of the items. The result is presented in Table 3.

**Table 1. Mean and standard deviation of responses on the extent of diversification of funding sources in universities (N = 480)**

S/N	Items	N	Mean	Std. deviation	Decision
1.	Part-time undergraduate degree programme	480	2.94	0.96	High
2.	Consultancy services	480	2.56	1.03	Moderate
3.	Industry related research services	480	2.42	0.94	Low
4.	Commercialization of physical facilities	480	2.76	0.93	Moderate
5.	Technology transfer through patenting	480	2.41	0.92	Low
6.	Dynamic tuition fee model	480	2.31	1.03	Low
7.	Commercialization of university services	480	2.58	0.94	Moderate
8.	Philanthropic donations	480	2.36	0.93	Low
9.	Manufacturing of products	480	2.54	0.84	Moderate
10.	Alumni donations	480	2.68	1.10	Moderate
	Grand mean		2.56		

*Cut off mean = 2.50: Below cut off x= Low; 2.50-2.79= Moderate; 2.80/ above= High*

**Table 2. Mean and standard deviation of responses on challenges of diversification in funding university education (N = 480)**

S/N	Items	N	Mean	Std. deviation	Decision
1.	Conflict of conventional universities functions with income generating activities	480	2.24	0.96	Disagree
2.	Enterprises are managed as government parastatals	480	2.66	1.18	Agree
3.	Mismanagement of funds generated through internal generated revenue	480	3.08	1.11	Agree
4.	Low staff morale	480	1.95	0.73	Disagree
5.	Population explosion due to consultancy programmes	480	2.79	1.15	Agree
6.	Limited screening of intake which affects quality	480	2.57	0.88	Agree
7.	University goals replaced by market goals	480	1.98	0.61	Disagree
8.	Increased staff-student ratio	480	2.70	1.19	Agree
9.	Production of poor quality students	480	1.95	0.63	Disagree
10.	Lack of managerial skills by programme managers	480	2.66	1.16	Agree
	Grand mean		2.46		

*Cut off mean = 2.50*

**Table 3. Mean and standard deviation of responses on strategies to solve diversification challenges in funding university education (N = 480)**

S/N	Items	N	Mean	Std. deviation	Decision
1.	Improve drive for philanthropic support	480	2.95	1.10	Agree
2.	Alumni should be cultivated	480	3.05	0.98	Agree
3.	Moderate tuition fee charge	480	2.52	0.72	Agree
4.	Reforms to improve internal efficiency	480	2.75	1.15	Agree
5.	Monitoring and supervision to avoid mismanagement	480	3.00	1.10	Agree
6.	University authorities should be accountable in financial management	480	2.70	1.19	Agree
7.	Training programmes for programme managers	480	2.58	1.00	Agree
8.	Admission for part-time programme should be controlled	480	2.52	0.93	Agree
9.	Entrepreneurial drive should be used in business enterprises, and universities.	480	2.85	1.05	Agree
	Grand mean		2.77		

*Cut off mean = 2.50*

Table 3 presents the strategies to solve the challenges of diversification. All the items had mean scores above 2.50, which depicts that the respondents rated the strategies as being useful in overcoming the challenges of diversifying funding sources of university education in Nigeria.

#### 5.4 Discussion

The finding of research question one reveals the extent of diversification of sources of funding university education in south-south Nigeria. The finding shows high extent of diversification through part-time undergraduate degree programmes. A plausible explanation for high extent of diversification of funding sources through part-time undergraduate degree programmes is that, it generates enormous income for universities in the study area. This is because many potential university students who could not gain admission through the highly competitive Unified Tertiary Matriculation Examination (UTME) resort to part-time undergraduate programmes. Other sources of funding with moderate extent of diversification include; consultancy services, commercialization of universities' services and physical facilities, manufacturing of products and alumni donations. The finding also indicates the untapped area of diversification to include tuition fee charges, industry related research services, technology transfer through patenting and philanthropic donations. All these sources indicate low extent of diversification. This finding is not surprising considering that government funding is not

adequate for increasing cost of administering university education. Hence, the universities in the study area have engaged in moderate extent of diversification of funding sources in order to ensure their sustainability through some alternative modes of financing tertiary education. The finding of this study is in consonance with Chukwurah [18], that education is being funded through internally generated income, which includes consultancy services, farm products, investment and mounting of consultancy educational programmes. This findings supports the view of Maisati [7] that most African universities have poor linkages between industries and higher educational institutions which would have been a viable source of generating additional revenue.

The fact that tuition fee does not make significant contribution to income generated in universities is not surprising because the Federal Government prohibits it. Various attempts in the past to increase school charges or levy students were always met with stiff resistance from students and in some cases resulted in riots or demonstrations. Thus, making university authorities at times to negotiate with students leaders before introducing new charges. The potential of tuition fee as a major funding source is considerable and management loses much without it. The only charges allowed are for accommodation, laboratory, library and utility. Mabongunje [19] had earlier pointed out that, if universities do not charge fees, they would still be indulging in a statist approach to development.

The results of the second research question reveal that diversification of funding sources in universities is faced with some challenges. The challenges, as shown in the findings include; mismanagement of internally generated revenue, students' population explosion, imbalanced staff-students ratio, limited managerial skills by programme managers and management of enterprises as government parastatals. Some of the findings as in the case of population explosion can be explained because increased revenue depends on large enrolment numbers. This has made programme managers to admit more students than available resources (human and material) in order to make more money. This issue has also created the problem of imbalanced staff-student ratio. Also, the general attitude of most Nigerian workers is to take government business with laissez-faire attitude as opposed to their own private businesses. This explains why most established ventures cannot break even. The issue of mismanagement is a serious problem since the money derived from internally generated revenue are not under Federal Government's direct control. Some management staff feel they can misappropriate the funds rather than use it for the intended purpose. The findings of this study are in line with the research of Riechi [6] who found that most of the problems affecting revenue-generating initiatives are attributed to the existing management structure of public universities, which are managed as government parastatals, inadequate operational capital and lack of managerial skills.

The findings of research question three shows the strategies to be adopted to enhance the diversification of sources of funding university education. These include improve philanthropic support, charging of moderate tuition fees, accountability and proper monitoring and supervision to avoid mismanagement of funds. A holistic approach is required in funding diversification in order to improve the financial base of universities for sustainability.

## **6. CONCLUSION**

In the light of the findings of this study, it could be concluded that there is a moderate extent of diversification of funding sources of university education. Also, the findings indicate the challenges faced in the current diversification drive by universities which, if not checked, can negatively impact on the sustainability of

university education. The findings also indicate the strategies to be adopted to enhance the diversification drive for more income by universities.

## **7. RECOMMENDATIONS**

The following recommendations are made;

- Enforcement of financial regulations. Managers of public institutions should be made accountable for the management of internally generated revenue. Fiscal supervision (monitoring and control) should be instituted.
- Admission intake into consultancy programmes should be regulated and controlled in the consultancy programmes.
- Staff in charge of business ventures should show commitment in the discharge of their functions. Entrepreneurial drive should be injected into business ventures undertaken by universities.
- There should be increased drive for alumni and philanthropic support which have not been fully exploited.
- Managers of university education should ensure that the drive for revenue generation does not distract the university from the core mission of teaching, research and community service.

## **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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