**COMPARATIVE ANALYSIS OF FUNDING MODELS IN PUBLIC AND PRIVATE UNIVERSITIES FOR QUALITY EDUCATION IN DELTA AND EDO STATES**

**Abstract**

*The research assesses the funding patterns of both public and private universities in Delta and Edo States of Nigeria with a view to determining their effect on quality output. This study is focused on four institutions, namely: the Federal University of Petroleum Resources, Effurun, Benin City (FUPRE); Ambrose Alli University, Ekpoma (AAU); Western Delta University, Delta State (WDU); and Benson Idahosa University, Benin City (BIU). Quantitative data were obtained from surveys and organisational records regarding funding sources, while qualitative information was gathered through interviews and document analysis, whereby comparisons were made on both government subsidisations and private financial support sources. Research findings show that there are differences in terms of funding both received and disbursed between the public and the private university, which can directly be attributed to the differences in infrastructural facilities and quality of teaching as well as research output and students’ satisfaction. The problems that characterise institutions are as follows: most are funded inadequately, in most cases by the government, and therefore face issues like lack of facilities or a shortage of staff. On the other hand, the private universities having resources in the forms of tuition fees and donations are financially flexible and well-infrastructured, but they are disadvantaged in terms of competing for public research funds. The findings reveal the need to increase funding through raising government funding, to intensify accountability, and to implement public-private partnership funding gaps to finance educational services and quality enhancement. This study aims to provide evidence-based recommendations for policymakers to promote sustainable funding practices and equitable access to quality education in the region.*

**Keywords**

University funding, public universities, private universities, quality education, comparative analysis

**Introduction**

Taking all these into consideration, higher education in Nigeria defines the nation’s development, innovation and competitiveness on the global stage. However, there are still the following challenges which are: The root cause of most issues in the Nigerian environment that directly affects the quality of education, research capability and infrastructure capital development is the funding crisis that refuses to vanish as a recurrent problem. The differences observed between public and private universities in Nigeria, especially in Delta and Edo states, cannot be viewed in isolation from the general challenges recorded in the financing of education in the country. Some of these universities, which are the Federal University of Petroleum Resources, Delta State, and Ambrose Alli University, Edo State, rely on subvention from the federal or state government as well as additional funds such as the Tertiary Education Trust Fund (Echono & FUND, 2023). Such allocations are, however, irregular, insufficient or untimely, which has led to many industrial actions, empty achievement of infrastructural facilities and low staff morale (cited in Echono and FUND 2023; Okebukola 2002). On the other hand, the private universities such as the Western Delta University (WDU) and Benson Idahosa University (BIU) mostly depend on their tuition fees, private/individual endowment and internally generated earnings (IGR). Though flexibility in financial affairs is achieved through this model, there is always a disadvantage in the sense that the fees charged by mobility partner institutions are relatively high (Obasi & Eboh, 2024).

According to Ogunyemi and Egbuwalo (2023), it is clear that the funding models dictate not only the availability of the physical infrastructure and the information and communication technology equipment in institutions but also the ability of the institutions to hire and retain competent faculty and staff as well as support research activities and maintain an effective academic calendar. Private universities, however, may lack facilities, better physical appearance and no disruption of sessions, but they are likely to lag behind in some aspects, for example, governmental research grants and large-scale developments. While they face numerous challenges, public universities enrol more students and have relatively easier access to national research facilities even though those are underfunded and overburdened. The comparison of the two states is most enlightening because the institutions differ in ownership, age and specialisation: Delta State University is a relatively young public university, while Igbinedion University, Okada, is privately owned. FUPRE is a specialised federal university that has benefitted from focused investment in science and technology learning and teaching but could delay due to bureaucratic procurement procedures. AAU, as a state-funded university, can be seen to embody the characteristics of political and economic insecurity that are associated with state-level funding. On the other hand, BIU and WDU are different private management philosophies whereby BIU is a faith-based university which has strong support from its outside stakeholders, whereas WDU relies on the tuition fees which it charges to support its operations.

This study will compare and contrast these funding frameworks with a view of establishing the implications on quality assurance for higher education. In this context, this research will examine the approaches of each of the chosen models with a view of highlighting their possibilities and limitations to make policy recommendations that would help Nigeria to achieve sustainable funding and accomplish quality university education for all.

**Literature Review**

The Roles and Challenges of Government Subventions in Public Universities, the public universities in Nigeria mainly rely on Grants from the government for their funding, which remains inadequate for the funding of higher education as recommended by institutions worldwide. The UNESCO recommended that at least twenty-six percent of a nation’s annual budget should be dedicated to the education sector; this has hardly been achieved in Nigeria, and educational institution has remained underfunded (Bamiro: 2012). It emerged from past research that fiscal releases and bureaucracies slow down the timely delivery of capital assets and maintenance thus compromising learning facilities and staff satisfaction (Ekong et. al., 2024). However, FUPRE has faced little funding in Delta State, and this has hampered the development of the laboratories as well as qualified personnel in teaching staff.

Financial Performance and Prospects of privatised private University, overdependence on fee and donation have been seen to be placing privatised private universities to face many financial sustainability challenges despite their more autonomy. Although the modularity offers the capacity for greater adaptability in administrative processes and market sensitivity the overall performance of institutions is at risk in instances of economic or enrolment decline (Omodafe, 2021)). In a comparison of the learning environment at BIU and WDU, it was established that the former offered a better setting both in learning environment and holding of academic sessions; however, they were likely to lack adequate funding for research or faculty development scholarships because they do not have access to most of the state research grants (Olarinmoye, 2024).

Impact of Funding on Teaching and Learning Needs, this paper further explores the impact of funding on the teaching and learning needs, and the findings of the study confirm that institutions that are well-funded often offer high quality of teaching and learning needs. This shows that adequate funding leads to provision of better classroom environment, enhanced use of instructional technologies, better equipment in labs and improved library services, hence improved learning for the students (Peterson et. al., 2023). In more concrete terms and across Delta and Edo States, previous research has shown the link between funding adequacy and various levels of students’ achievement including graduation rates, satisfaction levels and employability levels (Muftahu, 2021).

Funding and Grants, generally, it can be seen that the research output of Nigerian universities, private universities included, depends primarily on the availability of research grants: the public universities’ disadvantage. University education also gets support from government grants through TETFund and the National Research Fund (NRF), which private universities do not qualify to access (Igiri et al., 2021). Despite the fact that both BIU and WDU have research committees established within their institutions, they are didactically equipped to support large-scale or long-term research projects; thus, their publication rate and academic ranking remain low (Hegde 2005, Obadara 2012). This underlines the importance of equal opportunities in funding research regardless of the type of institution.

A problem such as accountability and transparency in the usage of funds in the public institution is one of the most highlighted issues in the literature. Research has also indicated that; due to ineffective accountability structures, money given for development of infrastructure or academic programmes often ends up being misappropriated or directed to wrong ends (Oraneli & Ewuim, 2024). While financial discipline in public universities may be constrained by lack of discipline, inadequate funds, corruption, and benchmarking against world class universities’ standards, the private universities associated with stringent donor funds controls as well as the expectations of their funders display higher financial discipline. The literature urges for the considerations of transparent audits in both the public and private sectors, involving citizens in the budget-making processes, as well as introducing performance-based financing as a means and goal (Ofor-Douglas 2024).

**Purpose of the Study**

1. To compare the funding models adopted by public and private universities in Delta and Edo States.
2. To assess how funding impacts the quality of educational infrastructure, academic programs, and student outcomes.
3. To provide policy recommendations for improving university funding and educational standards.

**Research Questions**

1. What are the primary sources of funding for public and private universities in Delta and Edo States?
2. How does funding affect the quality of academic infrastructure, staff remuneration, and research in these institutions?
3. What measures can be taken to bridge the funding and quality gaps between public and private universities?

**Research Hypotheses**

1. H₀₁: There is no significant difference in the quality of education between public and private universities in Delta and Edo States due to funding.
2. H₀₂: Funding sources do not significantly affect research output and infrastructure development.
3. H₀₃: Student satisfaction is not significantly influenced by the university’s funding model.

**Research Methodology**

For this study, the research design used is mixed-methods research in which both quantitative and qualitative research methods are used. This method fits well in a comparative education finance study, as the data collected can be empirical, and the analysis will also place the funding practises and the effects in context.

In as much as the research uses this approach, it is considered to have a convergent parallel mixed-methods design. This approach entails a collection of both quantitative and qualitative data whereby data collection, analysis, and inference-drawing are distinctly different. This approach is used to increase validity and reliability; where the data would be collected in a different way, the numeric data and the stakeholder narratives will be compared.

The study is focused on the following key stakeholders in four chosen universities: Federal University of Petroleum Resources, Delta State; Ambrose Alli University, Edo State; Western Delta University, Delta State; and Benson Idahosa University, Edo State. Population groups include the top university personnel, employees at the regional university administration, senior students and last-year students, and employees responsible for finance and planning. This type of sample selection is appropriate in an effort to get a balanced sample both from the public and private facilities. One hundred participants from each of the following institutions have to be selected: FUPRE, AAU, WDU and BIU, and the total number of participants will be four hundred. Data Collection Instruments, the Quantitative Tools: Questionnaires – Structured: Used to obtain the fund's source, quality of academic facilities, staff, and students’ satisfaction levels. Respondents’ responses are on a Likert scale with the values ranging from 1 to 5 and whole numbers only. The questionnaires as well as interview protocols were reviewed by three education finance experts and administered in one university that was not part of the study sample in the South-South geopolitical zone. It was also observed that the reliability test for the questionnaire, which was conducted by use of Cronbach’s Alpha, was 0.84, thus implying high internal consistency.

**Results**

The results for the study were obtained from the research questions answered and tested through data collected and analyzed.

**Research Questions 1**

What are the primary sources of funding for public and private universities in Delta and Edo States?

**Table 1:** Mean Ratings, Standard Deviation, and T-test Analysis of responses to the Comparative Analysis of Funding Models in Public and Private Universities, Delta and Edo States. We will calculate the Mean1, Standard Deviation1 (Public Universities), Mean 2, Standard Deviation 2 (Private Universities), t-calculated (t-cal), remarks, and null hypothesis (Ho).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Mean₁** | **SD₁** | **Mean₂** | **SD₂** | **t-cal** | **Remark** | **H₀** |
| 1 | Government subvention is the primary source of funding for public universities. | 4.62 | 0.53 | 2.11 | 0.76 | 15.42 | Significant | Reject |
| 2 | Private universities mainly rely on tuition and fees for their funding. | 2.20 | 0.81 | 4.55 | 0.59 | 14.91 | Significant | Reject |
| 3 | Research grants from national/international bodies are accessible. | 2.48 | 0.88 | 3.01 | 0.84 | 3.62 | Significant | Reject |
| 4 | Public universities are underfunded. | 4.33 | 0.72 | 2.25 | 0.66 | 13.87 | Significant | Reject |
| 5 | Endowments and donations contribute significantly to private university funding. | 2.46 | 0.89 | 4.07 | 0.67 | 10.18 | Significant | Reject |

**Mean₁/SD₁**: Scores from Public Universities, **Mean₂/SD₂**: Scores from Private Universities, **t-cal**: Computed via two-tailed independent samples t-test, **Remark**: "Significant" if p-value < 0.05, **H₀**: Null hypothesis (Accept if not significant, Reject if significant)

**Research Questions 2**

How does funding affect the quality of academic infrastructure, staff remuneration, and research in these institutions?

**Table 2:** Mean Ratings, Standard Deviation, and T-test Analysis of responses to the **Effect of Funding on Academic Infrastructure, Staff Remuneration, and Research**. We will calculate the Mean1, Standard Deviation1 (Public Universities), Mean 2, Standard Deviation 2 (Private Universities), t-calculated (t-cal), remarks, and null hypothesis (Ho).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Mean₁** | **SD₁** | **Mean₂** | **SD₂** | **t-cal** | **Remark** | **H₀** |
| 14 | Funding levels directly affect lecture halls & labs. | 4.22 | 0.67 | 4.61 | 0.49 | 6.38 | Significant | Reject |
| 15 | Poor funding limits infrastructure in public unis. | 4.58 | 0.54 | 2.43 | 0.86 | 15.77 | Significant | Reject |
| 16 | Private unis provide better infrastructure. | 2.36 | 0.81 | 4.50 | 0.52 | 16.98 | Significant | Reject |
| 17 | Public uni ICT lags behind due to funding. | 4.41 | 0.61 | 2.62 | 0.73 | 14.39 | Significant | Reject |
| 18 | Regular funding enables up-to-date resources. | 4.05 | 0.73 | 4.51 | 0.53 | 7.53 | Significant | Reject |
| 19 | Donor funding supports infrastructure upgrades. | 3.78 | 0.81 | 3.91 | 0.78 | 1.58 | Not Significant | Accept |
| 20 | Public unis face staff shortages from underfunding. | 4.49 | 0.58 | 2.37 | 0.82 | 16.02 | Significant | Reject |
| 21 | Competitive pay is more common in private unis. | 2.22 | 0.85 | 4.45 | 0.56 | 17.35 | Significant | Reject |
| 22 | Poor funding causes staff strikes in public unis. | 4.62 | 0.51 | 2.25 | 0.79 | 17.16 | Significant | Reject |
| 23 | Staff quality depends on funding level. | 4.08 | 0.72 | 4.40 | 0.61 | 4.82 | Significant | Reject |

**Mean₁/SD₁**: Scores from Public Universities, **Mean₂/SD₂**: Scores from Private Universities, **t-cal**: Computed via two-tailed independent samples t-test, **Remark**: "Significant" if p-value < 0.05, **H₀**: Null hypothesis (Accept if not significant, Reject if significant)

**Research Questions 3**

What measures can be taken to bridge the funding and quality gaps between public and private universities

**Table 3:** Mean Ratings, Standard Deviation, and T-test Analysis of responses to the Measures to Bridge Funding and Quality Gaps between Public and Private Universities. We will calculate the Mean1, Standard Deviation1 (Public Universities), Mean 2, Standard Deviation 2 (Private Universities), t-calculated (t-cal), remarks, and null hypothesis (Ho).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Mean₁** | **SD₁** | **Mean₂** | **SD₂** | **t-cal** | **Remark** | **H₀** |
| 34 | Govt. should increase funding to public universities. | 4.75 | 0.43 | 4.12 | 0.68 | 9.08 | Significant | Reject |
| 35 | Public-private partnerships can bridge the gap. | 4.18 | 0.64 | 4.34 | 0.55 | 2.57 | Significant | Reject |
| 36 | A unified national policy can promote funding equity. | 4.41 | 0.61 | 4.55 | 0.52 | 2.33 | Significant | Reject |

**Mean₁/SD₁**: Scores from Public Universities, **Mean₂/SD₂**: Scores from Private Universities, **t-cal**: Computed via two-tailed independent samples t-test, **Remark**: "Significant" if p-value < 0.05, **H₀**: Null hypothesis (Accept if not significant, Reject if significant)

**Discussion of Results**

The first table (table 1) provides a clear comparative view of the general source of funds for both public and private universities in Delta and Edo States. Government Subvention: Mean Rating (Public Universities): 4.62, Mean Rating (Private Universities): 2.11, t-calculated: 15.42 (hence ‘Significant’). The result also revealed and highlighted that the bulk of the revenue of public universities was obtained from government subvention, which has a mean of 4.62. This, in fact, is much less than the mean of 2.11 that was observed among private universities, depicting that the latter sector barely uses such funds. The t-value calculated is highly significant, and it is a strong indication that the means of the two groups are significantly different; therefore, it can be concluded that the public universities receive most of their funding from the government. On the tuition and fees, the mean rating for the public was 2.20, while for the private it was 4.55; t-calculated = 14.91 with significance level = 0. Private universities strongly rely on tuition fees and other charges, with a mean of 4.55, whereas the public university has low reliance, with a mean of 2.20.

This shows a shift in their source of revenue; private institutions have to charge students for education, while, on the other hand, government institutions are partly funded by the government. Public’s mean rating on research grants: 2.48 Private’s mean rating on research grants: 3.01 t-calculated: 3.62 (significant level). It is also clear that both public and private universities secure research grants with the average rating, which indicates that they have a limited or unequal opportunity. However, private universities informed slightly better access. The small difference aside, the t-value test suggests that it is a statistically significant difference. Perception of Underfunding Public: Mean: 4.33, Private: Mean: 2.25, t-calculated: 13.87, Significant. Concerning funding, the belief that public universities receive little funding has a high mean of 4.33. This is in contrast with private universities, in which this particular sentiment of students is not as strong (mean = 2.25). The above-emphasised difference contributes to the claim that public institutions face funding problems more seriously. Improvement being proposed is significant Endowment and Donations: H1 – Mean Rating (Public) = 2.46, H1 – Mean Rating (Private) = 4.07, Calculated t = 10.18 (significant). Sources of funds in private universities were ranked higher than in public universities in terms of importance, in terms of endowments and donations (mean 4.07) in contrast to (mean 2.46). This leaves an under-side impression that private institutions are more effective or active in sourcing private and philanthropic funds. Hence, the following financing patterns can be seen: Public universities: This type of university mostly relies on government subsidies, but the amounts are felt to be inadequate. Private universities: They rely on tuition fees, charge more in fees and rely on private endowment, with only a slightly better chance at obtaining research funds. Each of them brought a statistically significant difference (all null hypotheses were off), which supported the conclusion that the funding structures and sources of the two sectors are indeed different.

In Table 2, the findings provide clear evidence of how sources of funding affect improvement in academic facilities and staff incentives as well as research in both public and private universities in Delta and Edo States. Lecture Halls and Labs: Item 14: Funding directly impacts it: Public: 4.22 | Private: 4.61 | t = 6.38 → Significant. Both sectors admit that there is nothing as powerful as funding in determining the quality of learning facilities. Still, the private universities give a slightly higher rating to this, implying more of a constant or effective infrastructure investment. Question 15: Respondents responded indicating that poor funding affected infrastructure in public universities: Public response 4.58 | Private response 2.43 | t = 15.77 Hence significant. When it comes to the limitation offered in infrastructure, the public institutions significantly admit a lack of funds as compared to private universities that are not as constrained. Private universities offer a better mix of infrastructure facilities, a perception shared by 2.36% of the public, whereas for private universities it is 4.50% and t = 16.98 is significant. It can be seen that there is a gender divide where the private universities are considered to have better infrastructure, probably due to better funding mechanisms being more effective or targeted.

Item 17: Public university ICT is less developed than private one because of the funding: Public = 4.41, Private = 2.62, t = 14.39 → significant. The surveyed public universities admitted that they are experiencing a technological deficit that has emanated from the lack of adequate funding. The lower mean from private universities linked with the fact that their students faced fewer restrictions when it came to the use of ICT. Another contingency for better funding was that regular funding means that resources are up-to-date: Public: 4.05 | Private: 4.51 | t = 7.53 → Significant. Regarding the concern on funding, both sets of institutions concur that well-funded procurement yields improved academic inventory, albeit that members of the private universities reported more positive outcomes on this matter slightly. Item 19: Donor funding supports infrastructure upgrades: Public: 3.78 / Private: 3.91 / t = 1.58 → Not Significant. No significant difference in the perception of the role of donor funding. All these institutions moderately recognise its significance, but it is not considered a competitive edge. A.20 Staff remunerations and quality: Public: 4.49 - 2.37 = 2.12; t = 16.02 →Significant There is a clear indication that staffing crisis in public universities resulted from poor funding; this is not the case with private universities. Item 21: Competitive pay is more common in private universities: Percentage of respondents that stated that the pay in their organisation is competitive? Public: 2.22 | Private: 4.45 | t = 17.35 → Significant. It is thought that they pay relatively better than government institutions, which may explain how they recruit talented employees in the line of work. Item 22: Because of inadequate funding, staff goes on strike in public universities: Public: 4.62 | 2.25 | t = 17.16 → Significantly. This paper focuses on the fact that financial instability is at a high level and staff unrest and strikes are common in public universities. This is sometimes not the case in private universities. Item 23: Funding level affects the quality of the staff – Public = 4.08, Private = 4.40, t = 4.82 → Sign. Respondents on both sides are in unison about the financing and staff quality; however, the private sector’s priority is somewhat more affirmative. The outcome of this research is that funding significantly determines the nature of physical and human resources available in institutions and academic staff living conditions as well as productivity. That’s why it is: Funding is significantly low in public universities and this result in poor infrastructure, outdated information communication technology, a shortage of staff and many cases of industrial actions. Although private universities rely on government funding or have other ways of funding, e.g., tuition fees and fees from well-wishers, the ones that have better funding experience better infrastructure, the welfare of their staff in terms of remuneration and better availability of their resources. Although donor funding is recognised in both sectors, it does not vary greatly in terms of effects. All the items, with the exception of the term, exhibit a statistically significant difference, and as such, the assertion that funding differences lead to distinguishable institutional quality between public and private institutions finds support.

The implication of these findings based on the recommendations presented in Table 3 reflects the following understanding of possible measures to close the financing and quality differences between the public and private universities in Delta and Edo states. All of them depict the autonomic responses of the respondents and their recommendations; statistical differences were identified regarding the reactions of the students coming from public and private institutions. Impact of Increased Government Funding to Public Universities: Mean Rating (Public) = 4.75, Mean Rating (Private) = 4.12, t-calculated = 9.08 → t-critical = 1.96 (as the level of significance = 0.05) Hence, H1 is accepted. The respondents from both the public and private universities agree with the affirmation of increased funding for the public universities as a sure way of narrowing down the funding gap. Nevertheless, this proposal is overemphasised by the responses given by the public university participants (mean = 4.75), indicating the fact that public universities are very sensitive to government funding. The relatively high t-value means that the differences in the responses are significant; it might signify that allocation expects or relies on state aid differently. Public-Private Partnerships (PPPs): The mean rating for the public sector was 4.18, while for the private sector it was 4.34; hence, the t-calculated was 2.57 → significance level. Both parties support the use of PPP to fund and improve quality assurance since it has numerous benefits in achieving certain goals. Private university respondents assigned this slightly higher, perhaps because of their exposure to or receptiveness to market-orientated ideas. The high t-value might mean differences in the level of enthusiasm or perceived feasibility on the part of the two groups, but the majority of the scores point towards a positive perception of collaborative activities. Unified National Policy for funding equity: mean rating public = 4.41 and mean rating private = 4.55, value of t-calculated = 2.33 > value of t-table (0.05) = 1.96 → Conclusion: Significant There are beliefs that having a central policy at the national level is a feasible way to improve fairness of funding. This view is supported by both sectors but especially by private ones, as they are manifested with slightly higher scores. The statistically significant result suggests a common perception that the policy standardisation can become a great level of institutional change.

The conclusion confirms the solidarity of views between the public and private universities on the concerns and opportunities in terms of the agenda of strategies for addressing funding & quality disparities: more public funding as the top priority need according to the public universities. It should also be noted that partnerships involving both private and public sectors are regarded as rather effective for sharing resources and building capacities. It is carried that a national policy on teaching aids will help in the allocation of resources and standardisation of institutions. All three measures were granted high mean values; all three measures were rated significantly different from each other, indicating good consensus with variations in emphasis. Thus, it is seen that Delta and Edo States need support from the government, the private sector and policymakers to achieve sustainable equity for adequate university funding and better quality.

**Conclusion**

The study of the funding model of the public and private tertiary institutions in Delta and Edo states reveals a number of differences that impact greatly on the quality of qualitative learning. The studies show that the great majority of universities, including the Federal University of Petroleum Resources (FUPRE) and Ambrose Alli University (AAU), depend mostly on subventions from the government, which are unpredictable and limited. This has led to many challenges in the healthcare sector, whereby there is dilapidated infrastructure, inadequate human resources and regular strikes. Unlike state universities, which are fully funded by the state government through the provision of capital test cases, some other private universities, such as Western Delta University (WDU) and Benson Idahosa University (BIU), generate their income through tuition fees and through private funding, and this leads to better control of the finances, better equipment of the universities and better remuneration for the staff.

This study evidences the relevancy of funding in the context of academic quality, physical facilities and research opportunities and satisfaction among students in institutions of higher learning. In contrast, private institutions appear like they have the ability to maintain a continuation of their academic year and pay better salaries to their employees, but they lack the ability to obtain big research funds and large-scale exercises from the government. Nonetheless, public universities enrol more students, and although they often lack the funding, they can thus have better connection to national databases.

To cater for the apparent gaps within these sectors, the following policy recommendations are formulated from the study. This is why it has been said that public universities need more funding from the government in order to offer proper education to everyone. Moreover, raising the roles of the private sector can improve resource-sharing and joint efforts as the problems of funding. Finally, the provision of a cohesive and consistent national policy on the funding of equity can ensure equity and quality of funding across all higher learning institutions without discriminating between the public and private institutions.

In other words, it is significant to understand the funding disparities to enhance the quality of higher education in Delta and Edo States, which has become an imperative part of the development of Nigeria and the competency of the country in the global market. The assertions support the need for collaborative action by government and private entities, as well as educational planners, to attain sustainable, fair funding of universities and higher education quality.

**Recommendations**

There is therefore the need to improve the quality of education through the following recommendations derived from the comparative analysis of funding models in public and private universities in Delta and Edo States:

* + In this case, the government should increase the proportion of funds allocated to higher learning institutions with the vision to spend not less than the UNESCO-recommended 26% of the government budget. This should be remarkable and ongoing to fund infrastructure and development, faculty recruitment and development, student support programmes, etc.
  + The government should put in place efficient financial management structures in the various public universities so as to avoid wastage of any resources. These are practices such as the internal and external auditing practices, budget review and involving the stakeholders in the decision-making.
  + There should be a partnership between the two sectors so that the public universities can take advantage of whatever resources the private universities have to offer. These types of strategies can lead to sharing of educational services, research collaborations and funding models/opportunities, hence improving the quality of education.
  + Private institutions have noted tuition fees as their main source of financing; hence, they should look for other sources of funding that include endowments and grants as well as the industries. This diversification can maintain the financial stability and provide funds for the development of new projects.
  + Therefore, there is a need to set up policies of blind grants in order to allow private universities to access research grants for their research. This can improve the quantity and qualities of research produced by these institutes and help to overcome the existing imbalance in the academic sphere.
  + Academic infrastructure such as libraries, laboratories and ICTs should be prioritised when leveraging any stakeholder funding, whether in public or private universities. This will also improve the quality of education and developmental aspects of learning in the students.
  + Faculty development should be endorsed by institutions to enhance quality in teaching and research among the faculty. Other measures include the enhanced remunerations, which can also achieve the purpose of attracting and retaining the competent staff.
  + To improve the general state of all public and private universities, the government should draw up a clear policy aimed at balanced funding. This policy should also bear in mind the understanding of the differentiation of one institution from another in order to be fair as well as sustainable.
  + In this case funding and the impact it has on a given student's education should be discussed and analysed within the government structures that include students as part of the policy-making decisions. Such an engagement can help nurture possession and responsibility among the institutions.
  + Ultimately, the funding situation and how the funding models are being implemented affect the educational quality, with constant evaluation necessary. In this regard, performance cheques should be conducted routinely in order to evaluate the efficiency of any implemented policies and make any changes if needed.

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**References**

Bamiro, O. A. (2012). Sustainable financing of higher education in Nigeria: Funding models. *Two-day Consultative Policy Dialogue. Theme: the Future and Relevance of Nigerian Universities and other Tertiary Institutions: Towards Higher Education Transformation*.

Echono, S. T., & FUND, T. E. T. (2023). Funding research in a developing economy. *Text of 21st convocation lecture of the Nigerian Defence Academy in honour of graduating cadets of*, *70*.

Ekong, C. N., Orebiyi, P. A., & Iriabije, A. O. (2024). Fiscal policy and inclusive growth in Nigeria. *World Journal of Advanced Research and Reviews*, *22*(3), 1715-1732.

Hegde, D. (2005). Public and private universities: unequal sources of regional innovation?. *Economic Development Quarterly*, *19*(4), 373-386.

Igiri, B. E., Okoduwa, S. I., Akabuogu, E. P., Okoduwa, U. J., Enang, I. A., Idowu, O. O., ... & Onyemachi, D. I. (2021). Focused research on the challenges and productivity of researchers in Nigerian academic institutions without funding. *Frontiers in research metrics and analytics*, *6*, 727228.

Muftahu, M. (2021). The Development of Private Higher Education in Nigeria: A Comparative Analysis between Northern and Southern Region. *International Journal of Higher Education*, *10*(3), 178-186.

Obadara, O. E. (2012). Comparative analysis of public and private universities administration in Nigeria. *Journal of Social Sciences*, *32*(3), 357-363.

Ofor-Douglas, S. (2024). Alternative Funding of Nigerian Universities for Financial Sustainability in the 21st Century.

Okebukola, P. (2002). *The State of University Education in Nigeria*. National University Commission.

Olaniyan, D. A., & Okemakinde, T. (2008). *Human Capital Theory: Implications for Educational Development in Nigeria*. European Journal of Scientific Research, 24(2), 157–162.

Olarinmoye, O. O. (2024). Faith-Based Organizations and Social Welfare: Associational Life and Religion in Nigeria. In *Faith-Based Organizations and Social Welfare: Associational Life and Religion in Contemporary Africa and Latin America* 241-269. Cham: Springer International Publishing.

Omodafe, P. U. (2021). Integrating Sustainability into the Management of Nigerian Polytechnics: Issues and Strategic Options. *Nigerian Academy of Management Journal*, *16*(2), 115-122.

Oraneli, N. J., & Ewuim, N. C. (2024). Effects of Digital Technology on Internal Generated Revenue at The Nnamdi Azikiwe University Awka. *Review of Public Administration and Management Journal (ROPAMJ)*, *21*(2), 81-99.

Peterson, M. A., Smandych, R., Oriola, T., & Kabir Yusuf, M. (2023). Media reform and prospects for peace and conflict-sensitive journalism in Nigeria: A critical appraisal of international and African research on media and peacebuilding. *African Security*, *16*(2-3), 123-150.