

## **Analysis of Federal Government Budgetary Allocation for Staff Ratio between Teaching and Support Staff of Federal Universities in North-Central Nigeria**

AUGUSTINE SAMBO AZI  
University of Jos, Nigeria

**Abstract.** The purpose of this study was to analyse the influence of federal government budgetary allocation for staff ratio between teaching and support staff in federal universities in North-Central Zone of Nigeria. This is because there are limited and unstructured data that show pattern and extend of use of universities funds for the ratio between teaching and support staff. The study specifically examined the adequacy of federal government budgetary allocation to universities and its influence on the ratio of teaching staff and support staff in universities in North-Central Zone of Nigeria. Apart from extracting relevant Documents relating to budgetary allocations from the sampled universities, a descriptive research design was employed and data was collected from 5 out of 7 university Vice-Chancellors, 101 out of 254 bursary staff, 437 out of 2,912 lecturers and 50 out of 84,304 students from the five sampled federal universities. Both qualitative and quantitative research approaches were adopted in this study. The research instruments employed for data collection were questionnaires for bursary staff and lecturers, interview guide for university Vice-Chancellors, and Focus Group Discussion Guide for university students. Both descriptive and inferential statistics were employed to analyze the data. They were subjected to reliability and validity tests and found to be valid and reliable for the study. The findings from the field and documents showed that as a result of inadequate funding to universities, the

ratio between support and teaching staff was low, with the universities having an average ratio of 2:1. This implies that teaching staff are not adequately supported with negative consequences on their performance. The implication of this finding on the study is that Nigerian universities will not only be able to achieve their developmental priorities, they will also not be able to assist the Nigerian government achieve the Vision 20:2020 development plan. The study recommended among others that budgetary allocations to universities should be increased by government so that university administrators can utilize it for the recruitment of teaching and support staff. This will enhance a healthy ratio between teaching and support staff in universities.

### **1. Introduction**

Budgetary allocation to the education sector is carried by governments globally to their educational institutions. Globally, public universities receive their budgetary allocation from their governments annually (World Bank, 2011). These allocations are expected to be used by these universities for their developmental priorities in various areas which include the enhancement of a healthy ratio between teaching and support staff.

In a study conducted on school employees who don't teach by Richmond (2014) in universities in the United States of America (U.SA), it was

established that support staff accounted for 41 percent of all staff in their universities in 2010. That they serve in a support capacity in the categories of administrative support, library support and other support services in universities generally. Richmond further asserted that by 2014, as a result of adequacy of budgetary allocations to universities in the USA. The number of support staff in the United States grew by 130 percent. This implies that support staff constitute more than half of the public university workforce in the U.S.A. Their salaries and other benefits absorb more than one-quarter of their recurrent expenditure. This means that the ratio of support staff to academic staff is in favour of support staff in universities in United States of America. They complement academic staff in their responsibilities.

In Nigeria, the Government, through the Tertiary Trust Fund (TETFund) and the National Universities Commission (NUC) disburses millions of naira for infrastructural and human capital development to universities annually. This is because funding of universities has been identified as a strategy for manpower development of the society (Ajayi & Ekundayo, 2008). However, these funds seem to be inadequate in running federal universities in Nigeria (National Universities Commission, 2013). Earlier on, Hinchiffe (2002) had disclosed that in 2002, budgetary allocations to the education sector by the Nigerian federal government showed that 35 percent was allocated to primary education, 29 percent to secondary education, while tertiary education (comprising of universities, polytechnics and colleges of education) received only 36 percent.

The funding problem of Nigerian universities prevents them from having a healthy ratio of teaching to support staff in Nigerian universities. It may also prevent them from achieving universities' mandate of providing teaching, community service, research and training. The shortfall in funding may also affect Nigeria achieve its target of being among the 20 most developed countries by the year 2020, which is encapsulated in the government's Vision 20:2020 development plan.

This study therefore filled the gap created by limited data and information on the ratio between teaching and support staff in Nigerian universities. The study also proffered some practical solutions to achieve the priorities set by Federal universities in North- Central Nigeria in the area of ratio between teaching and support staff.

### **1.1 Objective of the Study**

The objective of this study was to analyse the influence of federal government budgetary allocation to universities on the provision of staff ratios between teaching and support staff in federal universities in North-Central zone of Nigeria.

### **1.2 Research Question**

To achieve this objective, the study was guided by the following research question:

How does federal government budgetary allocation to universities affect ratios of teaching staff and support staff in federal universities of North-Central Nigeria?

## **2. Review of Related Literature**

A study by Jump (2015) on academics in the United Kingdom (UK) revealed that, academics are in the minority at more than two-thirds of UK universities. The survey revealed that in 2013/2014 academic session, support staff were the majority at 111 out of 157 higher institutions in the UK. That they made up 60 percent or more of all staff in 27 higher institutions. For instance, universities of Bradford and Wolverhampton had 63 percent and 62 percent support staff respectively. This means that they had 37 percent and 38 percent teaching staff respectively complemented by the support staff for high productivity.

A study conducted by Ginsberg (2011) on the rise of universities administrators in the USA established that between 1998 and 2008, United States of America's private colleges and universities increased spending on instruction by 22 percent while increasing spending on administration and staff support by 36 percent.

That over the past four decades, the number of full time professors in America's colleges and universities increased slightly by more than 50 percent. That percentage is comparable to the growth in student enrolments during the same period. But that the number of administrators and administrative staffers employed by those schools increased by an astonishing 85 percent and 240 percent respectively. Explanations often adduced for this sharp growth in the number of university administrators over the past four decades according to the study is that apart from record keeping demands, there have been new sorts of demand for administrative services that require more managers per student or academic staff than was the case in the past. This implies that teaching staff are adequately supported in universities in the USA.

In South Africa, data on Statistics on Post-School Education and Training in South Africa by Higher Education & Training (2013) showed that in 2011, Higher education institutions in South Africa employed close to 17,000 academic staff, and over 30,000 support staff. On average therefore, there was one academic staff to about two support staff in higher education institutions in South Africa in 2011. Furthermore, in 2011, while university of South Africa had 1515 academic staff and 3,149 support staff, University of Pretoria had 1,281 academic staff and 1,908 support staff (Higher Education & Training). This shows that support staff are more than academic staff in the sampled universities but the ratios differ. Since there are few lecturers, it means that there is pressure on the quality of teaching in those universities.

In a study on funding challenges in African universities using Mozambique as a case study, Macuacua (2008) revealed that Eduardo Mondlane University Maputo in 2006 had 1,170 academic staff and 2,367 support staff with a budget of \$39,125. The number of support staff is more than twice the number of academic staff in the university, with a ratio of about 1:2, implying that academic staff do not have adequate support. The report did not breakdown the budget according to capital and recurrent allocations, making it difficult to know how

much of the budget is for academic and support staff of the university.

A study conducted by Odebiyi and Aina (1999) on alternative modes of financing higher education in Nigeria and implications for university governance revealed that the ratio of academic staff to other support staff is found to be about 1:3 in Nigerian universities. The study generalized all universities in Nigeria. In Kano university of Technology, a university owned by the Kano state government in Nigeria, Bennell, Dandago & Sagagi (2007) reported that, between 2005 and 2006, the university had 143 academic staff and 198 support staff. The report only showed the number of staff without indicating their budgetary allocations. This implies that there is a shortfall of academic staff in Nigerian universities with a negative consequence on their productivity.

### 3. Research Design

The study adopted a descriptive survey research design which ensures that data are gathered from relatively large number of issues. John and James (2003) confirmed that descriptive survey entails gathering data and inferring from a study of sample group carefully selected from the total population. This study assessed the adequacy of federal government's budgetary allocations on the provision of academic staff office accommodation in North-Central zone of Nigeria. This design was used by Ogbogu (2011) to examine the modes of funding Nigerian universities and its implications on performance. This is similar to this present study in the area of budgetary allocations to federal universities and how they are developed in the area of infrastructural development.

#### 3.1 Target Population

The target population of this study comprised of all the Vice-Chancellors, academic staff, bursary staff and students of federal universities in North-Central zone of Nigeria. The target population of the study was therefore made up of all the 7 Vice-chancellors in the federal universities, 254 bursary staff, 84,304 students and 2,912 lecturers of these universities. Kombo

and Tromp (2006) observed that population refers to entire group of persons or elements that have at least one thing in common.

This study also comprised of documents related to budgetary allocations as they influence provisions of academic staff offices of federal universities in North Central Nigeria. The budgetary allocations of the sampled universities were evaluated on the basis of each of the items listed above, with a view of analyzing and making conclusions.

### **3.2 Sample Size and Sampling Techniques**

A total of 5 federal universities were selected using a simple random sampling strategy out of 7 in the North-Central zone of Nigeria, implying that 71.4 percent of the study population were sampled for this study. The study employed the purposive sampling technique. Kasomo (2006) posited that purposive sampling allows the researcher to select respondents who would give relevant information pertaining to the phenomenon under study, ensure proper presentation of targeted population, and intensify study of selected items besides increasing accuracy of results.

The sample size for Vice-Chancellors and Bursary staff was 71.4 percent and 39.8 percent respectively. The researchers purposively sampled 15 percent of lecturers for the study. Therefore, a sample of 593 participants constituted the sample for this study. This comprised 5 vice chancellors, 437 Lecturers, 50

students and 101 bursary staff from the universities. In this study, the researcher selected 10 students for the FGD from each of the universities. The sample therefore comprised of 50 students from the 5 sampled universities.

### **3.3 Research Instruments**

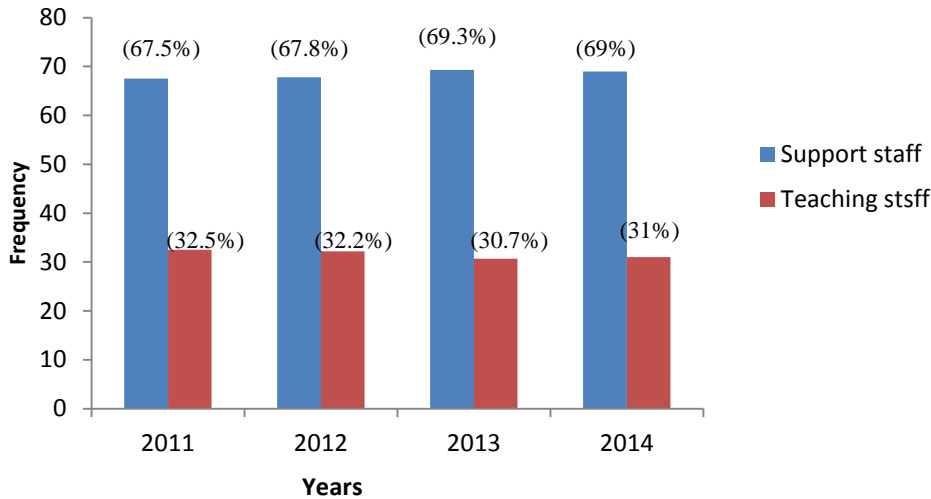
The research used a mixed methods approach. Mixed methods approach as the name suggests is where quantitative and qualitative methodologies are combined in carrying out a study to accomplish the research goals, which require diverse information from diverse stakeholders (Greene, Benjamin, & Goodyear, 2001).

The research instruments that were employed in this study included interview guide for university Vice-Chancellors, questionnaires for bursary staff and academic staff, focus group discussion for students, observation schedule and documents containing figures on budgetary allocations to universities.

## **4. Results**

**Research question:** How does federal government budgetary allocation to universities affect ratios of teaching staff and support staff in federal universities in North-Central Nigeria?

Relevant data relating to the number of support and teaching staff were extracted from the sampled universities documents. The data are as presented in figure 1.



Scale: Vertical axis 10cm= 1000 Staff

Figure 1 Number of teaching staff and support staff (2011-2014)  
Source: University documents from the five sampled universities

The data in Figure 1 show that in 2011, budgetary allocations for recurrent expenditure were ₦11,806,392,585.48 while personnel expenditure got ₦11,361,102,175.72 from that year’s recurrent allocations, representing 96.2 percent. Though these personnel allocations were for both support and teaching staff salaries, they are not enough. This is because the ratio between support and teaching staff is low as seen in Figure 4.13. For example, in 2012, the number of support staff was 6,255 compared to only 2,968 teaching staff, leading to a ratio of about 2:1 (67.8 percent support staff and 32.2 percent teaching staff). This was corroborated by university Vice-Chancellors and bursary staff who disclosed that the ratio between support and teaching staff is low, with university Vice-Chancellors disclosing that

the ratio between support and teaching staff in universities is 2:1, which implies that academic staff are overworked and not properly supported. This was attributed to inadequate budgetary allocations by the Vice-Chancellors. This is in line with Chao (2014) who revealed that universities should have at least a ratio of 5:1 support to teaching staff ratios.

The data collected from university bursary staff also aided in furnishing a response for research question. A simple frequency count of the percentage of respondents viewpoints were captured in a tabular form. Table 1 shows the views of university bursary staff on how budgetary allocations influence the ratio of teaching and support staff in universities.

Table 1 Distribution of percentage of respondents’ views on influence of budgetary allocations on ratio of teaching and support staff

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Support staff are given more priority than teaching staff through budgetary allocations in this university	45.5	41.6	6.9	5	1
Budgetary allocations do not influence the ratio between teaching and support staff	34.2	32.6	2.7	19.4	11.1
Budgetary allocations are adequate for teaching and support staff	42.3	29.9	3.1	17.8	6.9
Budgetary allocations influence the working relationship between teaching and support staff	21.5	37.8	2.2	23.6	14.9

N=101

Table 1 indicates that of the 101 bursary staff who responded to this questionnaire, 87.1 percent of the respondents disagreed that support staff are given more priority than teaching staff in universities. Moreover, 66.8 percent also disagreed that budgetary allocations do not influence the ratio between teaching and support staff. In responding on how adequacy of budgetary allocations affect ratios of teaching and support staff in universities, the university Vice-Chancellors reported that budgetary allocations to universities are not adequate for teaching and support staff.

It was evident that 72.2 percent disagreed that budgetary allocations are adequate for teaching and support staff in universities. Furthermore, 59.3 percent of the bursary staff disagreed that budgetary allocations influence the working relationship between teaching and support staff in universities. On the whole, the direction for all the indicators for adequacy of budgetary allocations tilted towards disagreement as against agreement thus indicating that budgetary allocations for the provision of ratios between teaching and support staff in universities are not adequate.

The data collected from university lecturers also aided in furnishing a response for research question four. A simple frequency count of the percentage of respondents viewpoints were captured in a tabular form. Table 2 shows the views of university lecturers on how budgetary allocations influence the ratio of teaching and support staff in universities.

Table 2 Distribution of percentage of respondents' views on influence of budgetary allocations on ratio of teaching and support staff

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The quality of teaching and support staff is high in this university	21.3	32.3	6.7	22.5	17.2
Budgetary allocations do not influence the ratio between teaching and support staff	22.4	36.6	5.8	24.1	11.1
Budgetary allocations are adequate for teaching and support staff	24.5	38.6	4.5	18.8	13.6
Budgetary allocations influence the working relationship between teaching and support staff	23.6	30.2	2.5	27.7	16

N=437

Table 2 indicates that of the 437 lecturers who responded to this questionnaire, 53.6 percent of the respondents disagreed that the quality of teaching and support staff is high in universities. Moreover, 59 percent also disagreed that budgetary allocations do not influence the ratio between teaching and support staff.

It was evident that 63.1 percent disagreed that budgetary allocations are adequate for teaching and support staff in universities. Furthermore, 53.8 percent of the bursary staff disagreed that budgetary allocations influence the working

relationship between teaching and support staff in universities. On the whole, the direction for all the indicators for adequacy of budgetary allocations tilted towards disagreement as against agreement thus indicating that budgetary allocations for the provision of ratios between teaching and support staff in universities are not adequate.

The University Vice-Chancellors also reported that budgetary allocations influence the ratio between teaching and support staff in universities. The University Vice-Chancellors

further reported that budgetary allocations influence the working relationship between teaching and support staff. On whether support staff are given more priority than teaching staff through budgetary allocations, the university Vice-Chancellors disclosed that budgetary allocations give more priority to teaching staff than support staff in universities.

University students were asked in a focus group discussion on the adequacy of their departmental support staff in relation to their lecturers. Most of them reported that both teaching and support staff were not adequate in their department. This is how one university student puts it:

*“We don’t have enough support staff in our department. Because, most times, when you go for certain clarifications from the departmental support staff, they usually tell us that they are busy, that we should come next time, when you come next time the oga (sir) will shout at you, telling you that he does not have your time because of his tight schedule. We want more lecturers and support staff to be employed so that our problems can be attended to as at when due.”*

This comment, together with other comments from the university students and Vice-Chancellors suggest that budgetary allocations to universities are not adequate for a healthy ratio between teaching and support staff in universities. Some of the students however disclosed that some of the support staff assist them whenever they needed clarifications on certain issues in their department.

#### Discussion of findings

The thrust of the research question was to examine the influence of budgetary allocation to universities and how it affects ratios of teaching staff and support staff in federal universities in North-Central zone of Nigeria. The key data issues under adequacy of budgetary allocations and its influence on the ratio between teaching and support staff include the fact that budgetary allocations have a positive relationship with the ratios of teaching and support staff. This means that, if budgetary allocations are increased for teaching and support staff, the ratio between support and teaching staff will be enhanced and

vice-versa. This finding concurs with Omole (2009) who confirmed that it is adequate funding of tertiary education, particularly the university education that would solve other problems in the system as well as other sectors of the economy. Omole further revealed that more funding for teaching and support staff will enhance their ratios in universities. Similarly, Miroiu and Aligica (2002) revealed that some universities in Romania distribute funds to their universities according to the number of academic and support staff positions. This enhances their ratios in Romanian universities.

In this present study, it was established that budgetary allocations to universities for teaching and support staff are inadequate. Furthermore, the findings of this study point to what Tilak (2009) reported that inadequate funding of universities results in poor supply of human capital and the effect shows in inadequacy of teaching and support staff in universities. Furthermore, Majoni (2014) revealed in a survey that universities were facing financial challenges, which has resulted to loss of qualified and experienced teaching and support staff in the system.

The next issue from these data relates to the fact that through budgetary allocations, teaching staff are given more priority than support staff in universities. This concurs with Conway, (2012) who disclosed that most universities give more priority to teaching staff than support staff in their budgetary allocations. Similarly, in Spain, each Spanish university’s budget range between 53 to 58 percent for academic staff. Support staff allocation is lower, ranging between 42 to 47 percent (Caballero, Galache, Gomez, Molina & Torrico, 2003). This is done basically to meet teaching staff requirements.

Another issue raised in the data is that the quality of teaching and support staff in universities is not high. This can be attributed to inadequate budgetary allocations to universities. This is because poor funding of universities does not attract quality personnel to the system. This is in line with Akintoye (2008) who revealed that paucity of quality university personnel is affected by inadequate budgetary allocations to

the system. Similarly, Okowa (2011) disclosed that universities are measured by the quality of their academic and non-academic staff. Okowa further revealed that apart from the quality, universities have to provide and maintain good ratios between their academic and non-academic staff. That without proper funding, the quality and ratio of teaching and support staff is affected.

It was also established in this study that the working relationship between teaching and support staff is not influenced by budgetary allocations to universities. This agrees with Conway (2012) who reported that the relationship between teaching and support staff is generally positive, that though they may have their differences, budgetary allocations to universities do not influence their working relationship. In the same vein, McMaster (2003) explored how deans and faculty managers work together, and identified different types of relationships that develop between the two roles in faculties. It was discovered that a higher degree of interdependence exists at this level, with more trust and understanding between them irrespective of budgetary allocations to the university.

### 5. Summary of Key Research Finding

The key research finding of this study is that budgetary allocations to universities are not adequate for the ratio of support to teaching staff. The ratio was found to be 2:1, meaning that few non-teaching staff support teaching staff in federal universities in North-Central zone of Nigeria.

### 6. Conclusion

On the basis of the findings of this study, the following conclusions were reached. It was discovered that budgetary allocations influence the ratio between teaching and support staff in universities. Due to its inadequacy, the ratio of support to teaching staff in universities is low. This is because the documents show that between 2011 and 2014 the ratio was 2:1. The implication of this to the university system is

that academic staff are overworked, with negative consequence on their productivity.

### 7. Recommendations

Considering the findings and conclusions of the study, the following recommendations are proposed:

- There is the need for the federal government to create time to facilitate the revision of its policies on university human capital development so as to provide clear guidelines in human capital development in the areas of academic and support staff recruitment, as well as avoiding the delays which are experienced in the award of contracts for infrastructural development.
- As far as possible, there is the need for an increase in budgetary allocations by government in order to support human capital development in the area of recruitment of staff in federal universities. This is because from the universities Vice-Chancellors responses on adequacy of budgetary allocations to universities, it was clear that the funds currently allocated by the government are not sufficient for a healthy ratio of teaching to support s

### References

- Ajayi, I.A., & Ekundayo, H.T. (2008). *The Deregulation of University Education in Nigeria: Implications for Quality Assurance*. Retrieved on 24<sup>th</sup> April, 2013 from [www.nobleworld.biz/images/Ajayi\\_Ekundayo.pdf](http://www.nobleworld.biz/images/Ajayi_Ekundayo.pdf).
- Akintoye, I.R. (2008). Optimizing Output from Tertiary Educational Institutions via Adequate Funding: A Lesson from Nigeria. *International Research Journal of Finance and Economics*.1(4), 192-199.
- Bennell, P., Dandago, K.I., & Sagagi, M.S. (2007). *Kano State, Federal Republic of Nigeria: Education Public Expenditure Review*. Retrieved on 21<sup>st</sup> January, 2016 from <https://>

- [www.esspin.org/reports/download/12-file-1247762016-kano-public-exp.pdf](http://www.esspin.org/reports/download/12-file-1247762016-kano-public-exp.pdf).
- Caballero, R., Galache, T., Gomez, T., Molina, J., & Torrico, A. (2003). Budgetary Allocations and Efficiency in the Human Resources Policy of a University following Multiple Criteria. *Economics of Education Review*. 2(3), 67-74.
- Chao, C. (2014). Professor Chen Chao's presentation of staff faculty ratio in public universities. Retrieved on 16<sup>th</sup> December, 2015 from <https://www.tc.columbia.edu/professor-chen-chaos-presentation-staff-faculty-ratio-in-public-universities>.
- Conway, M. (2012). Using causal layered analysis to explore the relationship between academics and administrators in universities. *Journal of Future Studies*. 17 (2) 37-58.
- Ginsberg, B. (2011). *The fall of the faculty: The rise of the all-administrative university and why it matters*. Oxford: Oxford University Press.
- Higher Education Statistics Agency. (2013). *Staff in Higher Education 2013/14*. Retrieved on 6<sup>th</sup> October, 2015 from <https://www.hesa.ac.uk/pr/3704-press-release-220>.
- Hinchiffe (2002). Higher Education in Nigeria: A Status Report. *World Education News and Reviews*. 17(5), 26-38.
- John, B.W. & James V.K. (2003). *Research in Education*. New Delhi: Prentice Hall of Put Ltd.
- Jump, P. (2015). *Academics in the minority at more than two-thirds of UK universities*. Retrieved on 24<sup>th</sup> March, 2016 from <https://www.timeshighereducation.com/news/academics-minority-more-two-thirds-uk-universities->.
- Greene, J.C., Benjamin, L., & Goodyear, L. (2001). *The merits of mixing methods in Evaluation*. 7(1), 25-44.
- Kasomo, D. (2006). *Research Methods in Humanities and Education*. Kenya: Egerton University.
- Kombo, D. K. & Tromp, D.L.A. (2006). *Proposal and thesis writing; An introduction*. Nairobi: Paulines Publishers Africa Limited.
- Macuacua, A. (2008). *The Funding Challenges for the African Universities*. Maputo: Eduard Mondlane University.
- Majoni, C. (2014). Challenges facing University Education in Zimbabwe. *Greener Journal of Education and Training Studies*. 2(1), 20-24.
- McMaster, M. (2003). *Partnerships between Administrative and Academic Managers; How Deans and Faculty Managers work together*. Paper presented at Tertiary Education Management Conference, Adelaide.
- Miroiu, A., & Aligica, P.D. (2002). *Public Higher Education Financing: A Comparison of the Historical and Formular-Based Mechanism*. Bucharest: Paideia.
- National Universities Commission. (2013). *List of Nigerian Universities and years founded*. Retrieved on 5<sup>th</sup> December, 2013 from [www.nuc.edu.ng](http://www.nuc.edu.ng).
- Odebiyi, A.I. & Aina, O.I. (1999). *Alternative modes of financing Higher education in Nigeria and implications for University Governance*. Final report submitted to Association of African Universities, Accra, Ghana. 118 pages.
- Ogbogu, C.O. (2011). *Modes of funding Nigerian Universities and the Implications of Performance*. The 2011 Barcelona-European Academic conference.
- Okowa, W. (2011). *Funding Imperative for Nigerian Universities*. Kaduna: Freedom Press and Publishers.
- Omole, W. (2009). Rethinking Tertiary Education Financing in Nigeria. *The National Scholars*. 6(1) 4-8.
- Richmond, M. (2014). *The Hidden Half: School Employees who don't teach*. Retrieved on 20<sup>th</sup> November, 2015 from [edex.s3-us-west-2.amazonaws.com/publication/pdfs/Hidden-Half-School-Employees\\_Who-Dont-Teach-final\\_o.pdf](http://edex.s3-us-west-2.amazonaws.com/publication/pdfs/Hidden-Half-School-Employees_Who-Dont-Teach-final_o.pdf)
- Tilak, J. (2009). *Financing Higher Education in Sub-Saharan Africa*. New Delhi: National University of Educational Planning and administration.

World Bank. (2011). *The Rise, Fall and Re-Emergence of the University of Ibadan, Nigeria*. Retrieved on 6<sup>th</sup> October, 2015 from [www.worldbank.org](http://www.worldbank.org).