IMPACT OF FEDERAL GOVERNMENT BUDGETARY ALLOCATION ON THE RATIO OF LECTURERS IN FEDERAL UNIVERSITIES OF NORTH-CENTRAL NIGERIA

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Abstract
The purpose of this study was to examine the impact of federal government budgetary allocation to universities on the ratio of lecturers with doctoral degrees and those without doctoral degrees in federal universities in North-Central Zone of Nigeria. Apart from extracting relevant documents relating to budgetary allocations from the sampled universities, a descriptive survey research design was employed and data was collected from 5 out of 7 university vice-chancellors, 101 out of 254 bursary staff and 309 out of 436 heads of departments 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 heads of departments, and interview guide for university vice-chancellors. Both inferential and descriptive survey statistics were employed to analyse the data. The instrument was subjected to reliability and validity tests and found to be valid and reliable for the study. The universities’ bursary staff and heads of departments’ questionnaires were analysed using regression analysis with Statistical Package for the Social Sciences (SPSS version 23) software, while the qualitative data from vice chancellors’ interviews were carefully read, thematised and coded. The findings from the field and documents showed that due to poor budgetary allocations from government, only 45 percent of lecturers had doctoral degrees in the sampled universities. This has affected the quality of teaching in universities. The implication is that Nigeria may not be able to achieve the target of achieving quality and equitable education as outlined by Sustainable Development Goal 4 target by the year 2030. The study therefore recommended among others that the federal government should increase the funding of Tertiary Education Trust Fund (TETFund) by increasing the tax paid by companies from 1 percent to 2 percent. This will enable it to be properly funded so that it can achieve one of its objectives of training lecturers.

Keywords: Budgetary allocation, Ratio of lecturers, Federal universities

INTRODUCTION
Universities are globally seen as instruments for promoting the socio-economic, political and cultural developments of nations. Adequate manpower is required for them to
achieve these goals. Development of academic staff in universities should be a priority because of their influence on the students and the society in general. In this regard, universities worldwide strive to adequately recruit and develop their academic staff in all areas of the profession.

Universities in the United Kingdom have high ratio of professors to non-professors which has put the universities in that part of the world at an advantage in producing quality graduates compared to universities with less number of professors. This has been attributed to adequate budgetary allocations to universities in that part of the world.

The funding problem of Nigerian universities may also prevent them from achieving universities’ mandate of providing teaching, community service, research and training. In addition, Nigeria may not be able to achieve Sustainable Development Goal 4 which seeks to achieve quality and equitable education by the year 2030. The shortfall in funding may also affect Nigeria’s achievement of its target of being among the 20 most developed countries by the year 2020, which is encapsulated in the government’s Vision 202020 development plan. The objective of the study therefore was to determine the impact of federal government budgetary allocation to universities on the ratio of lecturers with doctoral degrees and those without doctoral degrees in federal universities in North-Central Zone of Nigeria.

**RESEARCH QUESTION**

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

1. How does federal government budgetary allocation to universities impact the ratio of lecturers with doctoral degrees and those without doctoral degrees in federal universities in North-Central Zone of Nigeria?

**LITERATURE REVIEW**

Human resources are the people who constitute the workforce of any organization. Universities being educational institutions have academic staff who require certain skills to be able to function effectively. Ideally, all university academic staff are expected to have doctoral degrees, for instance, in the University of Jos as in all other federal universities as required by National Universities Commission (NUC), an academic staff is not promoted to the rank of a Senior Lecturer except he or she possesses a Ph.D. For this reason, universities are expected to constantly develop the human capital of their academic staff to enable them function effectively while discharging their duties (Abdulkareem, Fasasi & Akinnubi, 2011).

Lofthouse (2010) disclosed that the University of York in the United Kingdom had 3,250 academic staff in 2010 with more than 50 percent of them possessing doctoral degrees. He added that the university has a policy of improving their academic staff through constant training which is sustained by a continuous increase in budgetary allocations for academic staff.
training. This, in turn, has a positive impact on the overall productivity of the university’s academic staff.

A study conducted by Nana, Stokes and Lynn (2010) in 2008 revealed that eight universities in New Zealand have 9,648 academic staff, with 18 percent as Lecturers, 34 percent as Senior Lecturers, 9 percent as Associate Professors (Readers), 8 percent as Professors and 31 percent as academic others (part-time lecturers). The study asserted that the universities have a flexible training policy that encourages young academics to acquire doctoral degrees within three years. This policy has helped in developing the human capital of the sampled universities in New Zealand.

Financial and Fiscal Commission (2018) disclosed that in South Africa, it is required that at least 50 percent of permanent academics in the public university system should have Doctoral degrees and at least 40 percent should have a Master’s degree. The study further revealed that in 2010, only 34 percent of academic staff in public higher institutions in South Africa had Doctoral degrees, while 66 percent were without Doctoral degrees. This had a negative effect on the development of the university according to the study. The study did not however, link these figures with budgetary allocations to the sampled universities.

A report by The National University of Rwanda (2017) on institutional audit of the National University of Rwanda disclosed that in National University of Rwanda, because of underfunding which affected the training of academic staff, only 30 percent of its 525 academic staff had Doctoral degrees, 70 percent did not have doctoral degrees and this affected the quality of teaching in the university. The report however, sampled only one university.

Nigerian universities in 2018 had 35,000 academic staff. Out of this number, 21,350, representing about 61 percent did not have doctoral degrees (National Universities Commission, 2019). The reason for this according to the National Universities Commission could be traced to the 1980s and 1990s when the military junta in Nigeria deliberately underfunded universities and underpaid university lecturers. Nigerian military juntas were opposed to the university system because they considered it to be the bastion of opposition against their undemocratic and iron fisted rule. This policy demotivated potential postgraduate students as they preferred to seek for jobs in other sectors. Nigeria is still grappling with this deficit as disclosed by Olukoju (2014) who asserted that there was a deficit of 26,000 Ph.D holders in Nigerian universities as at 2012. This affects the quality of teaching in Nigerian universities.

Furthermore, the National Universities Commission (NUC) prescribed that Nigerian universities should have 20 percent Professors, 35 percent Senior Lecturers and 45 percent Lecturers 1 and below (National Universities Commission, 2010). However, a study conducted
by Satope (2014) revealed that between 2000 and 2009, Nigerian universities had an average of 18.2 percent of Professors, 21.4 percent of Senior Lecturers and 57.6 percent of Lecturers and below. Thus, most universities in Nigeria have not been able to meet the prescribed NUC norm making Nigerian universities to be bottom heavy as the number of academic staff without Ph.D’s are more than those with Ph.D’s. This is in line with Odiegwu (2012) who revealed that many lecturers in Nigerian universities do not have doctoral degrees and that this has a negative effect on the quality of teaching.

All the studies reviewed did not evaluate the ratio of lecturers with doctoral degrees to the ones without, and they also did not assess whether or not adequacy of budgetary allocations to Nigerian universities affects academic staff recruitment and qualifications in Nigerian universities. This present study filled this gap.

METHODOLOGY

The study adopted a descriptive survey research design which ensures that data are gathered from relatively large number of issues. Descriptive survey entails gathering data and inferring from a study of sample group carefully selected from the total population. This study examined the impact of federal government’s budgetary allocations on the ratio of lecturers with doctoral degrees and those without doctoral degrees in federal universities in North-Central Zone of Nigeria. This design allowed the researcher to gather and correlate information on budgetary allocations relating to the ratio of lecturers with doctoral degrees and those without doctoral degrees in the sampled universities from 2016 to 2019.

The target population of the study was made up of all the vice-chancellors, bursary staff and heads of departments in all the federal universities located in the North-Central Zone of Nigeria. This consists of 7 vice-chancellors, 254 bursary staff and 436 heads of departments. This study also involved examining documents related to budgetary allocations as they relate to the training and recruitment of teaching staff in federal universities in North Central Nigeria. The documents were extracted using a Pro forma which highlighted the funds released to the sampled universities. The budgetary allocations of the sampled universities were examined on the basis of each of the items listed above, with a view of analysing and making conclusions.

A total of 5 federal universities were selected using a simple random sampling strategy. These five universities were selected out of 7 in the North-Central Zone of Nigeria, representing 71.4 percent of the study population. The study employed the purposive sampling technique. The researchers purposively sampled 5 vice-chancellors, 309 heads of departments and 101 bursary staff, giving a total of 415 respondents.
The research instruments that were employed in this study included interview guide for university vice-chancellors, questionnaires for bursary staff and heads of departments, and documents containing figures on budgetary allocations to universities.

In this present study, both quantitative and qualitative data were gathered. The universities’ Bursary staff and heads of departments questionnaires were analysed with Statistical Package for the Social Sciences (SPSS version 23) software. All data entered onto the SPSS software were crosschecked after running descriptive statistics to identify wrongly entered data as well as missing data.

Quantitative data was directly coded into SPSS programme for analysis. For the quantitative data, descriptive statistics such as frequency counts and percentages were used to analyse and summarize the data collected. Presentation of data was done through tables and figures. All significant differences and relationships were tested at .05 alpha levels. The regression equation used for predicting the dependent variable and independent variable has been defined.

RESULTS

Research question: How does federal government budgetary allocation to universities influence the ratio of lecturers with doctoral degrees and those without doctoral degrees in federal universities in North-Central Zone of Nigeria?

Relevant data relating to the number of lecturers with doctoral degrees and those without doctoral degrees and budgetary allocations for personnel were extracted from the sampled universities documents. The data are as presented in Figure 1.

Figure 1: Budgetary Allocations (Personnel) and Number of Lecturers with Doctoral Degrees and Those Without Doctoral Degrees

Scale: Vertical axis 10cm = 1000 Lecturers
Vertical axis 10cm = ₦20,000,000,000
Source: University documents from the five sampled universities
The documents in Figure 1 show that in 2016, 2017 and 2019, only 959, 1,216 and 1,349 lecturers had doctoral degrees respectively, representing 38.1 percent, 48.3 percent and 46.4 percent of lecturers respectively in the sampled universities. Similarly, within the same period, percentage of budgetary allocations for personnel allocations were only 3.8 percent, 7.3 percent, 3.6 percent and 2.7 percent respectively. In 2018 and 2019 for instance, budgetary allocations for personnel expenditure were ₦10,426,329,971.83 and ₦11,361,102,175.72 respectively from those years’ recurrent allocations. This was corroborated by university vice-chancellors and bursary staff who disclosed that the number of lecturers with doctoral degrees was less than those without doctoral degrees, with university vice-chancellors disclosing that less than 45 percent of lecturers in universities have doctoral degrees. This, according to the vice-chancellors, affects the quality of universities in terms of teaching and research. This concurs with Akpanuko’s (2012) position that more than 50 percent of lecturers in Nigerian universities do not have Ph.D’s.

Furthermore, university vice-chancellors and bursary staff disclosed that personnel allocation to universities were not adequate to cater for the training of academic staff. This means that universities budgetary allocations for the training of academic staff are inadequate. This is in line with Akinsaya’s (2018) findings that revealed that though personnel costs constitute the highest percentage of government grant to universities, they are mostly used for the payment of existing staff salaries and allowances based on ranks, appointments, promotion and positions being held.

The responses of bursary staff and heads of departments were entered into a linear regression with ratio of lecturers as the dependent variable and budgetary allocations as the independent variable. Table 1 provides a summary on the model that emerged from the linear regression.

<table>
<thead>
<tr>
<th>Regression statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1</td>
</tr>
<tr>
<td>R</td>
<td>.255a</td>
</tr>
<tr>
<td>R Square</td>
<td>.065</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>.055</td>
</tr>
<tr>
<td>Std. Error of the estimate</td>
<td>2.8953</td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>1.658</td>
</tr>
</tbody>
</table>

As shown in Table 1, there is a simple correlation between ratio of lecturers and budgetary allocations to federal universities represented by R which means that the extent of relationship
between the two variables has a value of .255. Furthermore, the value of $R^2$ is .065, indicating that budgetary allocations to universities could account for 7 percent of ratio of lecturers in federal universities. This implies that the extent of adequacy of budgetary allocations to universities will predictably affect the ratio of lecturers in North-Central federal universities. In addition, the computed value of Adjusted $R$ square of .055 implies that 5.5 percent will correct the errors caused by variables omitted in the independent variables.

The findings further show that there could be other factors that explain the ratio of lecturers in federal universities in North-Central Zone of Nigeria. Budgetary allocations to federal universities in North-Central Nigeria was the only variable entered that brought up 7 percent proportion of causality with the remaining 93 percent to be explained by other variables that might also have an influence. Furthermore, the Durbin-Watson test gave a value of 1.658, which is close to 2 signifying that there is no autocorrelation in the residual of the regressor.

The data collected from heads of departments also aided in furnishing a response for the research question. A simple frequency count of the percentage of respondents viewpoints were captured in a tabular form. Table 2 shows the views of heads of departments on how budgetary allocations impact the ratio of lecturers in universities.

### Table 2: Distribution of Percentage of Respondents’ Views On Impact of Budgetary Allocations On the Ratio of Lecturers with Doctoral Degrees and Those Without Doctoral Degrees

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral degree holders are not better than lecturers without doctoral degrees</td>
<td>34.9</td>
<td>26.8</td>
<td>2.8</td>
<td>17.4</td>
<td>18.1</td>
</tr>
<tr>
<td>Budgetary allocations affect ratio of lecturers</td>
<td>14.6</td>
<td>15.1</td>
<td>2.1</td>
<td>38.5</td>
<td>29.7</td>
</tr>
<tr>
<td>Teaching staff are not sufficient to teach</td>
<td>15.4</td>
<td>22.8</td>
<td>3.4</td>
<td>33.3</td>
<td>25.1</td>
</tr>
<tr>
<td>Teaching staff are effective</td>
<td>16.5</td>
<td>16.1</td>
<td>3.2</td>
<td>36.1</td>
<td>28.1</td>
</tr>
<tr>
<td>Teaching staff have doctoral degrees</td>
<td>41.3</td>
<td>44.4</td>
<td>4.5</td>
<td>23.6</td>
<td>16.2</td>
</tr>
</tbody>
</table>

N=309

Table 2 indicates that of the 309 heads of departments who responded to this questionnaire, 61.7 percent disagreed that doctoral degree holders are not better than lecturers without doctoral degrees in universities. However, 68.2 percent agreed that budgetary allocations affect ratio of lecturers. In responding on the adequacy of budgetary allocations for the ratio of lecturers to universities, the university vice-chancellors reported that budgetary allocations to universities are not adequate to have a favourable ratio of lecturers in universities.
It was evident that 58.4 percent agreed that teaching staff are not sufficient to teach in universities. As to whether teaching staff are effective or not, the lecturers presented a 64.2 percent depth of agreement that teaching staff are efficient. Furthermore, 85.7 percent of the lecturers disagreed that most teaching staff have doctoral degrees, this means that most of the lecturers do not have doctoral degrees.

The university vice-chancellors also reported that even though training of teaching staff is a priority, inadequate budgetary allocations to universities affect their frequent training. They therefore reported that there were more lecturers without doctoral degrees than those with doctoral degrees as a result of inadequacy of budgetary allocations to universities.

**DISCUSSION**

The thrust of the research was to examine the impact of federal government budgetary allocation to universities on the ratio of lecturers with doctoral degrees and those without doctoral degrees in federal universities in North-Central Zone of Nigeria. The study found out that the percentage of budgetary allocations for personnel allocations were only 3.8 percent, 7.3 percent, 3.6 percent and 2.7 percent in 2016, 2017, 2018 and 2019 respectively, while in 2016, 2017 and 2019, the percentage of lecturers with doctoral degrees compared with those without doctoral degrees were 38.1 percent, 48.3 percent and 46.4 percent respectively in the sampled universities.

The key data issues under adequacy of budgetary allocations on the ratio of lecturers and those without doctoral degrees include the fact that 61.7 percent of the respondents disagreed that doctoral degree holders are not better than lecturers without doctoral degrees in universities. This means that, lecturers with doctoral degrees perform better than those without doctoral degrees. This finding concurs with Ingersoll and May (2011) who revealed that due to an increase in budgetary allocations, the US university teaching force increased by 48 percent. Furthermore, Altbach, Berdahl and Gumport (2005) disclosed that universities in the US train teaching staff frequently because it increases their institutions’ ability to respond to changing student demand.

In this present study, 68.2 percent of the respondents established that inadequate budgetary allocations affect the recruitment of academic staff in universities. Furthermore, the findings of this study point to what Ajayi and Ekundayo (2008) reported that more than 90 percent of universities do not have adequate teaching staff, disclosing that universities do not have lecturers in sensitive and critical areas because of underfunding of the university system. UNESCO (2009) supported this view by disclosing that low budgetary allocations to university education in Africa have led to brain drain arising from the failure of universities to recruit quality academics.
The next issue from this data relates to the fact that teaching staff are efficient in universities. 64.2 percent of the respondents were of the view that even though lecturers are few, they are still efficient. This puts undue pressure on the lecturers as they hardly have time for research and community service. This concurs with Yakubu’s (2012) position that more than 70 percent of universities overwork their academic staff with a negative effect on the quality of teaching. The report revealed that with only 28,128 full time and pensionable academic staff in 61 public universities in Nigeria, there is a chronic shortage of teaching staff. This is attributed to poor funding as less than 30 percent of the approved funds are implemented. Similarly, Belal and Spriguel (2006) disclosed that in Egyptian universities, many of the highly experienced staff fled to oil-rich countries in search of high salaries or emigrated to Western Europe or North America to find decent jobs, with negative implication on the quality of academic staff recruitment as the best brains do not want to work in Egyptian universities.

Another issue raised in the data is that the respondents revealed that 85.7 percent of teaching staff do not have doctoral degrees. This is attributed to certain factors such as inadequate manpower and inadequate budgetary allocations for staff training to universities as less than 4 percent of the personnel funds are used for staff training. This means that if budgetary allocations for academic staff training are increased, more lecturers will be trained. And if budgetary allocations for academic staff training are not adequate, it means that few lecturers will have doctoral degrees. This is in line with Bamiro (2012) who revealed that the allocation of more funds for the training of teaching staff in universities will result to the training of more teaching staff. This will in turn improve the quality of teaching staff and increase the number of teaching staff with doctoral degrees. Similarly, Financial and Fiscal Commission (2010) disclosed that in South Africa, 66 percent of their academic staff teach without doctoral degrees while Odiegwu (2012) revealed that many lecturers in Nigerian universities do not have doctoral degrees.

Generally, the linear regression result shows that there is a simple correlation between ratio of lecturers and budgetary allocations to federal universities. This is because the value of R² which is .065 indicates that budgetary allocations to universities could account for 7 percent of ratio of lecturers in federal universities. This implies that the extent of adequacy of budgetary allocations to universities will predictably affect the ratio of lecturers in North-Central federal universities. This is in line with the findings of Odiegwu (2012) who revealed that more than 70 percent of lecturers in Nigerian universities do not have doctoral degrees as a result of inadequate budgetary allocations to universities.
CONCLUSION

On the basis of the findings of the study, in 2016, 2017, 2018 and 2019 respectively, the percentage of lecturers with doctoral degrees was 38.53 percent, 42.38 percent, 41.71 percent and 37.26 percent respectively, while within the same period under review, percentage of budgetary allocations for personnel allocations were only 3.8 percent, 7.3 percent, 3.6 percent and 2.7 percent respectively. This finding shows that budgetary allocation for personnel in the sampled universities is inadequate. This has a negative effect on the quality of teaching in the sampled universities. The implication is that Nigeria may not be able to achieve the target of achieving quality and equitable education as outlined by Sustainable Development Goal 4.

RECOMMENDATIONS

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

1. There is the need for the Nigerian government to increase the budgetary allocation of education to at least the 26 percent recommendation of the United Nations Educational Social and Cultural Organization (UNESCO). This will aid in increasing the number of lecturers to be trained for their doctoral degrees.

2. Even though the Tertiary Education Trust Fund (TETFund) was established to assist in training university lecturers, there is the need for government to increase the tax paid by companies from 1 percent to 2 percent. This will enable TETFund to be properly funded so that it can achieve its objective. Furthermore, the three tiers of government should augment the funding gap of university education by creating a dedicated and designated funding ratio to education.

REFERENCES


