



Research productivity of academic staff in Federal colleges of education in Nigeria: The way forward

Emojorho Daniel ^{1*}, Lucky Oghenetega Urhiewhu ², Martin Oniovoghai Emezaiwakpor ³

¹ Polytechnic Liberian, Delta State School of Marine Technology, Burutu, Nigeria

²⁻³ University Library, Dennis Osadebay University, Asaba, Nigeria

* Corresponding Author: **Emojorho Daniel**

Article Info

ISSN (online): 2582-7138

Volume: 03

Issue: 03

May-June 2022

Received: 23-05-2022

Accepted: 07-06-2022

Page No: 609-616

Abstract

This study focuses on research productivity of academic staff in federal colleges of education in Nigeria: The way forward. The survey research design was adopted for the study while the Expectancy and Institutional theories provided the framework. The multi-stage sampling procedure was used to select 724 as the sample size for the study. Findings from the study revealed an average level of research productivity among academic staff in Nigerian Colleges. Environmental factors as well as adequate motivational factors for research productivity of academic staff in Nigerian Colleges were found to be favourable. On the other hand, funding for research activities was found to be inadequate. Institutional factors were established to be positively correlated with research productivity of academic staff in Nigerian Colleges. Organizational culture and funding which are the most important factors were found to be dominant institutional factors that contributed significantly to the level of research productivity of academic staff in the selected Nigerian Colleges. Therefore, the study recommends provision of adequate funding for academic research, activities by College Management in Nigeria Colleges of Education.

Keywords: Institutional factors, research productivity, lecturers, federal colleges, Nigeria

Introduction

Research productivity of lecturers is key for the advancement of societies and career growth of the lecturers in higher educational institutions. According to the Organisation for Economic Corporation and Development (2017), research involves any creative systematic activity undertaken in order to increase the stock of knowledge and the use of this knowledge to develop new applications for modern living. Research is also viewed as a systematic analysis to uncover new facts with the intention of gaining knowledge to resolve or address a problem. Research plays a key role in modern day civilization in that it is done with the motive for societal development and propelled by high level curiosity which translates or builds up to further investigation. In the academia, the concept of research is taken seriously since the promotion of college members is dependent on the number of publications they have. This requirement makes it mandatory for College members to be productive scholars.

Research productivity is viewed as the measure of an academic's achievement in terms of quantity or quality and publications over a given period of time. One of the fundamental goals of research is to create new knowledge that can be applied. Hence, it is important to state that research productivity is a robust measure of academic achievement and recognition as well as the totality of research activities performed by lecturers over a given period of time (Basiru, 2018 & Sullivan, 2016) ^[12, 13]. The measurement of the quantity of research output of lecturers is viewed in terms of the numbers of publications in learned, globally accepted indexed databases, number of patents produced, number of chapters in books or books published locally or internationally which are believed to be accepted by high impact refereed or learned journals. Others, include number of publications in proceedings of conferences/workshop, research-oriented books, staff bulletins, subject books, technical reports, articles in refereed journals, pamphlets and monographs., and this measure varies from one institution to another (Gunawan, Barasa and Tua, 2018) ^[30].

Research productivity is crucial to scholars, researchers' and learned members especially in the Colleges, and central to the teaching capability of College or staff. This is because the academic mandate of a lecturer is to teach, conduct research and participate in community service. Research is one of the elements of a university or college that set them apart from their competitors within the context of ranking and a key indicator used to place institutions on the ivy-league table of world ranking (Gunawan, Barasa and Tua, 2018) ^[30]. This makes it crucial for employees who are College and staff to engage in research and become productive. The Federal Government (2004) averred that lecturers in tertiary institutions are the major determinants of the education process particularly in ensuring quality, hence the success or failure of the education system depends on them. As a mandate to conduct research in academic institutions by lecturers, during these processes, digital contents such as seminar papers, conference papers, technical reports, datasets, theses and dissertations, pre-print and post-print journal articles, images, audio and video contents are produced. Lecturers determine the development of Colleges by developing curriculum, controlling the academic rules and creating a better method for students' learning (Gunawan, Barasa and Tua, 2018) ^[30]. Lecturers enhance their teaching by developing and promoting innovative teaching methods, consultation with students and production of teaching materials for students, while also carrying out investigations on identified problem (s), presentation of findings of such investigations in conferences/seminars and publishing of the findings in journals and/or text books.

The principal criterion for measuring lecturers' research productivity is the research output or productivity of publications in refereed national and international journals and textbooks. According to Okonedo (2015) ^[53], research productivity in Colleges often serves as a major role in attaining upward mobility in the academic environment as it is related to promotion, tenure and salary of academic staff. Research in Colleges serves as a good platform for lecturers to become accomplished scholars and plays an eminent role in facilitating the prosperity of a nation and ultimately the well-being of the citizenry. Andrew (2018) ^[7] is of the view that that the most research productivity measure in Colleges is to assess publications that are submitted or accepted (in press), or published which could be journal articles (refereed and non-refereed), books (including edited books and textbooks), book chapters, monographs, conference papers, and research proposals written to receive external and internal grants.

Despite the assertions and deductions on the importance of research, especially in the university, it is some worth gloomy to state that the level of research productivity of lecturers in Colleges of Education in Nigeria is rather low, (Wenying, 2012) ^[68]. This assertion is supported by Haliso and Toyosi (2013) ^[31] who observed that the quantity and quality of research output from Nigerian institutions is rather too low to make an impact on national development. Scholars such as Ani, affirm that research productivity of lecturers across disciplines is low and inconsistent in Nigeria. Existing studies have dealt with academics' research productivity with various variables and indicators. However, the concept of institutional support seems to be neglected as factors that could contribute to the low level of research productivity. According to, researchers in higher institutions all around the world, can be supported through selected institutional factors

to drive research productivity.

Institutional factors refer to elements that affect the productivity of College and staff or employees in any organization. Institutional factors can be described as the external and internal environment of an organisation which influences work processes. Institutional factors include elements that may affect the productivity of lectures which the university may adjust or look into. Institutional factors include support programmes that an institution develops for College members, practice and standards. Mantikayan and Abdulgani (2018) ^[42] averred that institutional factors like training, staff support, technical support and guidance, resources, awards, workload, research culture, tenure and promotion, financial awards, performance standards, peer and social recognition, and leadership factors like appreciation and orientation can influence lecturers' research productivity.

The research productivity of university lecturers is often defined in terms of publication output and community service. Unfortunately, there seems to be a serious decline in the research productivity of university lecturers as evident in the decline of output of publication in terms of quantity of publication (Mantikayan & Abdulgani, 2018) ^[42]. Efforts at addressing the declining levels of research productivity of lecturers in Nigerian Colleges of Education through training and retraining, and formulation of policies by the various universities, government and its agencies as well as provision of funding by government through Tefund and other means, have not yielded any positive results in addressing this problem. Consequently, it is pertinent to suggest that there are other factors that need to be addressed to curb this declining trend in research productivity of lecturers in Colleges of Education in Nigeria. Empirical evidence and observations have revealed institutional factors as having the tendency to influence research productivity of lecturers in Colleges of Education in Nigeria.

Moreover, preliminary investigations revealed that there are few studies on research productivity of lecturers in Colleges of Education in Nigeria and none of these studies has actually investigated the influence of components of institutional factors as having the tendency to determine the level of research productivity of lecturers in Colleges of Education in Nigeria. Also, existing studies on research productivity focused on researchers in research institutes (Edward, Faith and Mathew, 2016) ^[24], but this study is interested on institutional factors in Colleges of Education in Nigeria. It is on this basis that this study intends to investigate the institutional factors that determine lecturers' research productivity in Federal Colleges of Education.

This study was designed to answer the following research questions:

Research questions

1. What is the level of academic staff research productivity in selected Nigerian Colleges of Education?
2. What are the dominant institutional factors available to support academic staff research productivity in selected Nigerian Colleges?
3. What relationship exists between institutional factors and academic staff research productivity in selected Nigerian Colleges?

Literature Review

Productivity is a measure of efficiency of production which

is usually expressed as the ratio of output to inputs used in the production process. When all outputs and inputs are included in the productivity measure, it is called total productivity. Outputs and inputs are defined in the total productivity measure as their economic values. Productivity is generally defined as a measure of the amount of output generated per unit of input (QuyHuu, 2015) ^[57]. In many countries, public sector productivity has been assumed to be zero in the national accounts. The definition of productivity is concerned with the relationship between input and output which does not cover issues that many people have in mind when they talk about public sector productivity.

On the other hand, research productivity is determined through time frame in which it is required that an individual indulging in research must finish. This is more visible with those in academics in which it is required by policy that a teaching staff will publish certain amount of literature as their promotion is tied to it. With this, the researcher comes up with methodologies and concepts towards accomplishing the research. It is assumed that the output of research, if implemented, promotes national development and economic advancement. Studies, such as had revealed that lecturers research productivity is influenced by individual factors (self-efficacy, affiliation, motivation, commitment, orientation skills, research skills, achievement motivation, community contribution, sense of responsibility, scientific pursuit, autonomy and flexibility, satisfying interest and curiosity).

Lecturers in the institutions of higher learning engage in research activities to transfer knowledge and to keep abreast with current trends as they teach. The total volume of research production from the lecturers on an individual level determines how productive they are. The idea behind the productivity of researchers is that it is directed towards knowing and measuring the quality of teaching in the institution. Furthermore, research is an important criterion in determining the career growth of a lecture in the University, published in notable databases. In a more recent study by, the scholars were of the view that the use of channel of publication is crucial in determining the productivity of lecturers with great emphasis on visibility of the lecturers. It is commonly accepted that the measure of research productivity is by number of publications in terms of volume by researchers. Research output which includes peer-reviewed journal publications, conference papers, books and chapters in books and monographs.

The visibility and reputation of an institution of higher learning is dependent on the quantity and quality of research productivity of its lecturers. It is an institutional mandate to publish which by implication means, no lecturer or College will be promoted without a good number of publications (Mantikayan & Abdulgani, 2018) ^[42]. One of the major factors that have been observed to have the tendency to influence lecturers' research productivity is institutional factors. Such institutional factors include, staff development and training opportunities, staff support, technical support and guidance, resources, awards, workload, research culture, research emphasis, tenure and promotion, financial rewards, performance standard, peer and social recognition) as well as, leadership factors which include, appreciation, orientation and priority and astrictive factors which refer to gender, age, intelligence and personality. There are various measures of research productivity according to literature in the Nigerian educational sector. This variation is due to the fact that Nigeria Colleges have different standards for measuring

research productivity since it is linked to promotion of a faculty. Some scholars have proposed investigating the quantity of journal articles or the quality of the articles (Mantikayan & Abdulgani, 2018) ^[42].

Okiki (2013) ^[51] opined that research productivity of the teaching college members is high in the areas of journal publications, technical reports, conference papers and occasional papers, and the implication is that a large number of Colleges of Education rated articles in learned journal publication higher than any other parameters of research output, especially books, dictionaries, chapter in books and patents. This however, supports the study of Ahmad (2020) ^[36] who identifies low internet bandwidth and financial constraints as an impediment to lecturers' research productivity in Colleges of Education in Nigeria. In other words, the extent of a scholar's research productivity has considerable influence on their academic career trajectory by way of overall employability, compensation, promotion and tenure within an institution.

Research Methodology

The survey research design was adopted for the study while the target population comprises all the 11,591 academic staff spread across the 43 Colleges of Education in the six geo-political zones of Nigeria (Preliminary investigation, 2021). Multi-stage sampling procedure was adopted in selecting the sample for the study. Purposive sampling technique was adopted in selecting one of the Federal College in each of the six geo-political zones in Nigeria viz: Adeyemi College Of Education Ondo State (South-West); Federal College of Education, Zaria Kaduna State (North-Central); Federal College of Education Yobe State (North-East); Federal College of Education (Technical), Asaba, Delta State (South-South); Federal College of Education, Okene Kogi State (Central Nigeria) and Alvan Ikoku Federal College of Education, Imo State (South-East). At the second stage, purposive sampling technique was used to select 5(five) Schools that are commonly available in all the selected Colleges viz: Schools of Science, Agriculture, Social Science, and Arts. These Schools are popular ones in Colleges with vibrant academic programmes. Also, purposive sampling technique was used to select one department that is commonly available in the selected Schools. Therefore, Departments of Computer Science (School of Science), Animal Science (School of Agriculture), Sociology from school of Social Science), and History (School of Arts) were selected. Census/total enumeration was used to include all the 724 academic staff in the selected departments to constitute the sample size for the study.

The instrument used for data collection was a structured questionnaire. The questionnaire tagged "Institutional factors and Academic Staff Research Productivity Questionnaire (IFASRPQ) consists of three sections. Section A is designed to elicit information on the demographic information of the respondents such as name of institution, School, department, gender, age, designation and work experience. Section B of the questionnaire focused on eliciting information to measure the level of research productivity of the academic staff. It comprises 10 items and measured on a 5-point Likert Scale of 5 = Very high level, 4 = High level, 3= Moderate level, 2 = Low level, 1 = Very low level. Section C of the questionnaire elicited information on institutional factors prevalent in the selected Colleges and comprised 20 items measured on a 4-point Likert Scale of Strongly Agree =4,

Agree =3, Disagree =2 and Strongly Disagree =1. The scales for research productivity and institutional factors were adapted from. The questionnaire was administered on 30 lecturers of Federal College of Education, Nssuka, Enugu State, for the pilot study. The test-retest method was adopted in finding the reliability of the questionnaire which yielded reliability coefficients of 0.935 and 0.728 for institutional factors and academic staff research productivity respectively (See Table 1).

Table 1: Cronbach's Alpha α Reliability Coefficient for the Variables

Variables	Cronbach's α	No of survey items
Institutional factors	0.935	28
Lecturers research productivity	0.728	23

Interpretation of Results

The results of the analysed data revealed that there are more male academic staff (292 representing 54.1%) than female (248 representing 45.9%) among the respondents surveyed for the study. The age distribution of the respondents showed that majority of the respondents (483 or 89.4%) fall within

the age range of 25-54 years which implies that majority of the academic staff surveyed are in their active years of service and productivity. Also, the results revealed that most of the respondents (492 or 91.1%) are in their early and middle career levels and could it be inferred that most of the academic staff surveyed are in their early and middle career levels which require them to be highly productive. Also, most of the academic staff surveyed (457 or 84.6%) had working experience of 6 years and above, and as such, it can be said to have ample experience on their job. On the distribution of the respondents according to designation, the results showed that most of the academic staff (432 representing 80.0%) are in their early and middle career levels of Lecturers Assistant Lecturer and Lecturers 1. Only few of the respondents were in the professorial and Assistant Lecturers cadre. The implication of this for the study is that the category of respondents in the majority are those very appropriate for this study since they are still growing in their careers and their level of productivity is important for their career growth.

Research Question 1: What is the level of academic staff research productivity in selected Nigerian Colleges?

Table 2: Research Productivity of Academic Staff in Nigerian Colleges

S/A	Production (Quantity)	Very High (VH)	High (H)	Average (AV)	Low (L)	Very Low (V.L)	$\bar{\chi}$	Std. Dev	Remarks
1	Annual research publications	86 15.9%	200 37.0%	173 32.0%	64 11.9%	17 3.1%	3.51	.99	Average
2	Total number of all types of publications (Conference papers, book chapters,) I have for the last three years (the total output within 3 years)	112 20.7%	158 29.3%	158 29.3%	82 15.2%	30 5.6%	3.44	1.14	Average
3	Total number of my peer reviewed journals publications	114 21.1%	142 26.3%	137 25.4%	85 15.7%	62 11.5%	3.30	1.28	Average
4	Total number of peer reviewed textbooks published	79 14.6%	193 35.7%	113 20.9%	88 16.3%	67 12.4%	3.23	1.24	Average
5	Total number of my peer reviewed Chapters in books	97 18.0%	140 25.9%	144 26.7%	90 16.7%	69 12.8%	3.20	1.27	Average
6	Total number of my peer reviewed conferences proceedings	89 16.5%	138 25.6%	149 27.6%	100 18.5%	64 11.9%	3.16	1.24	Average
7	The total number of patents & technical reports	87 16.1%	161 29.8%	128 23.7%	75 13.9%	89 16.5%	3.15	1.31	Average
	Weighted Mean						3.28	.934	

Decision Rule: Very High = 7 and above publications; High = 5-6 publications; Average =3-4 publications; Low =1-2 publications; Very Low = No publications

Table 2 revealed that, using the decision rule, the level of research productivity of academic staff in the selected Colleges in Nigeria is not high (average). The result shows that most of the academic staff ranked average on all parameters of quantity of production viz: annual research publications ($\bar{\chi} = 3.51$), total number of all types of publications ($\bar{\chi} = 3.44$), the total number of my peer reviewed journals publications ($\bar{\chi} = 3.30$), the total number of peer reviewed textbooks published ($\bar{\chi} = 3.23$), the total number of my peer reviewed Chapters in books ($\bar{\chi} = 3.20$), the total number of my peer reviewed conferences proceedings ($\bar{\chi} = 3.16$) and total number of patents & technical reports ($\bar{\chi} = 3.15$). Also, the overall level of research productivity of the academic staff was found to be average with mean value of 3.28 using the decision rule. Therefore, it can be deduced that research productivity of academic staff in the selected Nigerian Colleges of Education, in terms of quantity of production, is average.

Research Question 2: What are the dominant institutional factors available to support academic staff research productivity in selected Nigerian colleges?

Table 3 presented information on the institutional factors for research prevalent in Colleges of Education in Nigeria. The

result shows that 65.2% of the respondents agreed that work process and employee management is averagely okay while 65.5% attested to the fact that work ethics is major factor that aids research productivity. Also, some of the majority of the academic staff (59.8%) affirmed the exemplary leadership style of their institution as key institutional factors that aids research. Overall, it can be inferred that the academic staff in Nigerian Colleges affirmed organisation culture as prevalent institutional factors for research since the weighted mean of 2.71 is greater than the threshold criterion mean of 2.50.

On the environmental factors for research support prevalent in Colleges of Education in Nigeria, the result of the analysed data revealed that most of the respondents - 60.6%, 57.4% and 56.6% - attested to access to research networks, conducive research environment and availability of adequate office space and facilities respectively, as environmental factors for research support available in their institutions. The overall inference that was deduced from the result is that the academic staff found the environmental factors in the selected Nigerian Colleges conducive for research activities since the weighted mean of 2.71 for environmental factors is greater than the criterion mean of 2.50 set for supportive environmental factors for research in the Colleges surveyed. The results on funding showed inadequate funding for research activities since the weighted mean of 2.41 is lower than the criterion mean of 2.50. This result was supported by

the responses of most of the respondents which revealed that most of the respondents disagreed with the fact that; they have access to research fund any time every time (51.5%), institutional funding of research reports is regular in their institution (50.4%), and that there is provision of access to international funding with condition attached (52.4%). This implies that inadequate funding for research is prevalent in

Colleges of Education in Nigeria. Meanwhile, on the overall, supportive institutional factors were established to be available for research activities by academic staff in the selected Nigerian Colleges of Education.

Research Question 3: What type of relationship exists between institutional factors and academic staff research productivity in selected Colleges in Nigeria?

Table 3: Dominant Institutional Factors Available To Support Academic Staff Research Productivity in Selected Nigerian Colleges

S/N	Institutional factors	SA	A	D	SD	$\bar{\chi}$	Std. Dev	Decision
Organizational Culture								
1	Work process and employee management is averagely okay	137 25.4%	215 39.8%	125 23.1%	63 11.7%	2.79	.953	Agree
2	Work ethics is major factor that aids research productivity	114 21.1%	240 44.4%	130 24.1%	56 10.4%	2.76	.901	Agree
3	Organisational climate in my institution is not conducive	117 21.7%	237 43.9%	120 22.2%	66 12.2%	2.75	.931	Agree
4	Leadership style of my institution is exemplary	106 19.6%	217 40.2%	140 25.9%	77 14.3%	2.65	.952	Agree
5	Institutional research culture in my organization is good	104 19.3%	216 40.0%	144 26.7%	76 14.1%	2.64	.947	Agree
Weighted Mean						2.71	.936	Agree
Environmental Factors								
6	There is access to research networks in my institution.	136 25.2%	191 35.4%	134 24.8%	79 14.6%	2.71	1.00	Agree
7	Research environment in my institution is very conducive	110 20.4%	200 37.0%	166 30.7%	64 11.9%	2.66	.93	Agree
8	There is adequate office space and facilities in my institution	93 17.2%	213 39.4%	175 32.4%	59 10.9%	2.63	.89	Agree
9	My institution encourages and support creativity	89 16.5%	221 40.9%	168 31.1%	62 11.5%	2.62	.89	Agree
10	There is opportunity for training and retraining to keep abreast of current development in my institution	85 15.7%	218 40.4%	165 30.6%	72 13.3%	2.59	.90	Agree
Weighted Mean						2.64	.92	Agree
Motivational Factors								
11	I have access to Academic leaders in research cluster	99 18.3%	256 47.4%	123 22.8%	62 11.5%	2.73	.89	Agree
12	I have access to mentoring system and research assistance	104 19.3%	199 36.9%	159 29.4%	78 14.4%	2.61	.95	Agree
13	There are opportunities for research collaboration	85 15.7%	216 40.0%	173 32.0%	66 12.2%	2.59	.89	Agree
14	There is a good reward system in my organization for outstanding performance	69 12.8%	246 45.6%	152 28.1%	73 13.5%	2.58	.87	Agree
15	There is good reward and incentive system in my institution such as traveling expenses for research activities.	83 15.4%	185 34.3%	162 30.0%	110 20.4%	2.45	.98	Agree
Weighted Mean						2.59	.91	Agree
Funding								
16	There is appropriate support for research collaboration.	101 18.7%	213 39.4%	111 20.6%	115 21.3%	2.56	1.024	Agree
17	I have access to research fund any time every time.	72 13.3%	190 35.2%	162 30.0%	116 21.5%	2.40	.969	Disagree
18	Institutional funding of research reports is regular in my institution	84 15.6%	184 34.1%	121 22.4%	151 28.0%	2.37	1.052	Disagree
19	There is provision of access to international funding with condition attached	97 18.0%	160 29.6%	132 24.4%	151 28.0%	2.36	1.075	Disagree
20	There also provision for local grants which I have access severally	75 13.9%	196 36.3%	117 21.7%	152 28.1%	2.36	1.036	Disagree
Weighted Mean						2.41	1.03	Disagree
Overall Weighted Mean						2.63		

Survey: 2022

Table 4: Result Showing the Relationship between Institutional Factors and Research Productivity of Lecturers in Selected Nigerian Colleges of Education.

Variable	Mean	Std. Dev.	N	R	P	Remark
Research productivity	35.60	9.10	540	.424**	.000	Sig.
Institutional factors	64.10	15.05				

*Significant at .05 level, Survey: 2022

Table 4 presents result on the relationship between institutional factors and research productivity of academic staff in Nigerian colleges. The result shows that there is significant positive relationship between institutional factors and research productivity of academic staff in Nigerian Colleges ($r = .424$, $N = 540$, $p < .05$). Therefore, the null hypothesis was rejected. The implication to be drawn from this result is that institutional factors are important factors that determine the level of research productivity of academic staff in Nigerian Colleges such that an improvement in the institutional factors would lead to a corresponding increase in the level of research productivity of academic staff in Nigerian colleges.

Discussion of findings

The level of academic staff research productivity in Colleges of Education in Nigeria was established to be average which implies that academic staff in Colleges of Education in Nigeria are averagely productive as regards their research activities. This result is at variance with the findings of Okiki (2013) ^[51] that reported high level of productivity, in terms of journal publications, technical reports, conference papers, working papers, and occasional papers, among lecturers in Colleges of Education in Nigeria. Publications play significant role in assessment of lecturers to higher cadres; hence it is not surprising that this major area responsible for their career progression is given priority. Findings from the study also established a positive relationship between institutional factors and academic staff research productivity in Colleges of Education in Nigeria. This finding is in agreement with that of Nguyen, Nguyen and Dao (2021) ^[46] that established strong correlation of institutional factors with research productivity of lecturers and that policies, work environment and support from institutions could influence research productivity of lecturers. In the same vein, findings

from this study supports those of Henry, Ghani, Haron, Hamid, which emphasised institutional decision to fund research activities of lecturers to be propelling force to make better commitment to research endeavours. When the policies favour research activities, the tendency for lecturers to commit themselves to it, becomes high knowing that they do not have to use their personal income to sponsor research activities.

Conclusion and Recommendations

This study investigated the research productivity of academic staff in federal colleges of education in Nigeria: The way forward were established to be major determinants of lecturers' research productivity in Colleges of Education in Nigeria just as organisational culture and funding were the major institutional factors that determine the level of academic staff research productivity in the surveyed colleges. Research productivity of academic staff in Colleges of Education in Nigeria in terms of quantity of production was found to be on the average. The study thus, concluded that favorable institutional factors can improve the research productivity level of the academic staff in Colleges of Education in Nigeria. Therefore, it is expected that improvement in organisational culture and adequate funding for research in the Colleges would lead to improved research productivity of the academic staff.

Further recommendations are funding is key to achievement of goals of any educational institution. It is evident from the findings of the study that there is deficiency in the funding of research activities in the Colleges of Education in Nigeria. Therefore, colleges of education management, and by extension government, should endeavour to allocate adequate funding for research activities. Research involves data collection, conference attendance and publications, among others. All of these require funds. Lecturers should take advantage of every available opportunity to improve their research skills to enable them to be more productive. Tet fund supposed should be made available always for academic staff in all higher institutions, Nigeria by their management.

References

1. Abu Alhija FMN, Majdob A. Predictors of teachers' educators research productivity. *Australian Journal of Teacher Education*. 2017;42(11):22-35.
2. Adei S, Boachie-Danquah Y. The Civil service performance improvement programme (CSPIP) in Ghana: Lessons of Experience. *African Journal of Public Administration and Management*. 2003;14(1/2):10-23.
3. Aderibigbe IA. Relationship between employee motivation and productivity among bankers in Nigeria. *Journal of Economics*. 2017;8(1):76-80.
4. Adu EO. Institutional, personal and reward system factors as determinants of teachers' productivity in public secondary schools in Oyo State, Nigeria. *Journal of Social Sciences*. 2015;45(1):11-25.
5. Ajala EM. The Influence of workplace environment on workers welfare, performance and productivity. *The African Symposium: An Online Journal of the African Educational Research Network*. 2015;12(1):141-149.
6. Amini-Philips C, Okonmah AN. Lecturers' workload and productivity in Colleges in Delta State. *International Journal of Education, Learning and Development*. 2020;8(3):111-136.
7. Andrew WM. The role of institutional repositories in making lost or hidden cultures accessible: A study across four African University Libraries. *Library Philosophy and Practice*; c2011-2018.
8. Angela B, Daniel B, Sang Un N, Lisa L, Karin C. *Research productivity and academic conceptions of research*. Springer Science Business Media Dordrecht. Published Online; c2015.
9. Awan GS, Tahir MT. Impact of working environment on employees' productivity: A case study of banks and insurance companies in Pakistan. *European Journal of Business and Management*. 2015;7(1):58-66.
10. Bamigbola AA, Adetimirin AA. Evaluating use of institutional repositories by lecturers in Nigerian universities. *Information Impact: Journal of Information and Knowledge Management*. 2017;8(8):83-102.
11. Bamigbola AA. Awareness, anchor and adjustment factors as determinant of perceived ease of use of institutional repositories by lecturers in Nigeria universities. Ph.D. Theses, LARIS, University of Ibadan; c2018.
12. Basiru A. Level of research productivity of academic staff in private Colleges in South West Nigeria. *International Journal of Current Research*. 2018;10(8):73124-73130.
13. Batoool H, Chi A. Identification of institutional factors of research productivity of public university teachers. *Journal of Educated Research, Department of Education, IUB, Pakistan*. 2018;21(2):23-34.
14. Bay Jr BE, Clerigo MEC. Factors associated with research productivity among oral healthcare educators in Asian University. *International Education Studies*. 2013;6(8):1913-9020.
15. Buchanan DA, Huczynski AA. *Organisational behaviour: An Introductory Text*. London: Prentice-Hall; c1985.
16. Cathy CS, Christopher RC. An Overview of measuring academic productivity and changing definitions of scientific impact. *Becker Library Publications and Presentations (Becker Medical Library)*. 2014. Available from: <http://digitalcommons.wustl.edu/becker-pubs/49>.
17. Certo CS, Certo TS. *Modern management*. 10th ed. New York: Prentice Hall; c2006.
18. Cheng-Cheng Yang J. A study of factors affecting university professors' research output: Perspectives of Taiwanese Professors. CORE Publications; c2018. Available from: <https://clutejournal.com/index.php.TLC/article/download/9968/1069>.
19. Chepkorit RK. Effect of academic staff qualification on research self-efficacy and research productivity through research culture implementation; c2018 .p. 0128-2603.
20. Cocal CJ, Cocal EJ, Celino B. Factors limiting research productivity of College members of a state University: The Pangasinan State University, Alaminos City Campus Case. *Asia Pacific Journal of Academic Research in Social Sciences*; c2017 .p. 2.
21. Cole GA. *Personnel and human resource management*. 5th ed. London: Continuum; c2002.
22. Daley DM. *Performance appraisal in the public sector: Techniques and Applications*. Westport, CT: Quorum Books; c1992.
23. Edward G, Faith K, Mathew S. Motivational issues for lecturers in tertiary institutions: A Case of Bulawayo Polytechnic. *International Journal of Scientific and*

- Research Publications. 2016;6(4):2250-3153.
24. Fairweather JJ. The Mythologies of College productivity: Implications for institutional policy and decision making. *The Journal of Higher Education*. 2020;73(1):57-87.
 25. Federal Government of Nigeria. National Policy on Education. Lagos: Federal Government Press; c2004.
 26. Garnasih RL, Primiana I, Effendi N, Joelicety. Strengthening research self-efficacy and research productivity through research culture implementation. 2017;0128-2603.
 27. Gaus JM. Reflection on public administration. Alabama: University of Alabama Press; c2006.
 28. Gunawan A, Barasa L, Tua H. Determinants of lecturers' work satisfaction and implication on lecturers' performance at Maritime Higher Education in DKI; c2018.
 29. Haliso Y, Toyosi A. Influence of information use on academic productivity of lecturers in Babcock University, Nigeria. *Journal of Information Engineering and Application*. 2013;3(11):70-76.
 30. Handayani A, Kusmaningtyas A, Riyadi S. Factors that influence the achievement motivation and research productivity of lecturers in the Higher Education service institution Region VI Central Java. *International Journal of Research and Innovation*. 2019;3(6):2454-6186.
 31. Heng K, Hamid M, Khan A. Factors influencing academics' research engagement and productivity: A developing countries perspective. *Issues in Educational Research*. 2020;30(3):965-987.
 32. Ikelegbe AO. Public policy analysis: Concept, issues and cases. Lagos: Imprint Services; c2006.
 33. Ahmed IK, Dantata BS. Problems and challenges of policy implementation for national development. *Research on Humanities and Social Sciences*. 2016;6(15):60-65.
 34. Jameel AS, Ahmad AR. Factors impacting research productivity of academic staff at the Iraq. *Higher Educational Business Education Journal*. 2020;13(1):108-126.
 35. Kasa MG, Soyemi DO, Opeke RO. Authorship patterns in research output of College members in university-based research institutes in Nigeria. *International Journal of Library Science*. 2020;9(2):34-39.
 36. Kasule GW. Impact of work environment on academic staff job performance: Case of a Ugandan University. *International Journal of Advances in Management and Economics*. 2016;4(4):95-103. Available from: <https://www.researchgate.net/publication/303922664>.
 37. Kusure LP, Mutanda L, Maware D, Dhliwayo L. Factors influencing productivity among lecturers in Teaching College in Zimbabwe. *South African Journal of Educational Science and Technology*. 2006, 1(2).
 38. Mafhukho FM, Wekullo CS, Muyia MM. Examining research productivity of faculties in selected leading public university in Kenya. *International Journal of Educational Development*. 2019;66:44-51.
 39. Manju DI, Suregh W. Personnel management: Concepts, principles and applications. England: Prentice Hall; c2011.
 40. Ma Mantikayan J, Abdulgani M. Factors affecting faculty research productivity: Conclusions from a critical review of the literature. *JPAIR Multidisciplinary Research*. 2018;31(1):1-21.
 41. Musoke MG. Strategies for addressing the university library users' changing needs and practices in Sub-Saharan Africa. *The Journal of Academic Librarianship*. 2008;34(6):532-538.
 42. Naharuddin NM. Factors of workplace environment that affect employees' performance: A case study of Miyazu Malaysia. *International Journal of Independent Research and Studies*. 2013;2(2):66-78.
 43. Ndege TM, Migosi JA, Onsongo J. Determinants of research productivity among academics in Kenya. *International Journal of Education Economics and Development*. 2011;2(3):288-300.
 44. Nguyen MD, Nguyen TD, Dao KT. Effects of institutional policies and characteristic on research productivity of Vietnam Science and Technology Universities. *Heliyon*. 2021, 7(1).
 45. Nwabuisi TI, Harriet UI. Institutional policy and management of institutional repositories in Nigerian Universities. Unpublished lecture, University of Nigeria, Nzukka; c2017.
 46. Nygaard LP. Publishing and perishing: An academic literacies framework for investigating research productivity. *Studies in Higher Education*. 2017;42(3):519-532.
 47. Nzoka JM. Institutional factors influencing lecturers' productivity at Kenya Methodist University (Master's thesis). University of Nairobi, Kenya; c2018.
 48. Ojewole J. Occupational stress, organisational commitment and job satisfaction among academic staff of public universities in South West Nigeria. *South African Journal of Education*. 2016, 38(1).
 49. Osalusi FM. Lecturers' research productivity in public universities in South West Nigeria: Post-doctoral fellowship experience. *African Journal of Educational Management*. 2016;18(2):135-148.
 50. Osinbanjo OO, Adeniji AA. Lecturers' work-life interface: A case study. *Journal of Education Management and Policy Studies*. 2020;12(1):89-103.
 51. Pitaloka, Elok R. Lecturer Work Environment: Predictors of Job Satisfaction and Organisational Commitment. *International Journal of Research*. 2014;1(8):850-859.
 52. Pongweni F. Factors influencing academic research productivity in Zimbabwean University Libraries. *Library Philosophy and Practice*; c2011-2018.
 53. Rajaraman P, Viswesvaran C. Predictors of faculty productivity in the College of Business and Management. *Journal of Faculty Development*. 2020;25(1):27-40.
 54. Ryan GA. Predictors of organisational commitment in Higher Education: Perspectives of Nigerian academic staff. *International Journal of Business and Management Studies*. 2011;3(2):145-160.
 55. Saka M, Haruna N. Institutional repository management in selected Nigerian University Libraries: Problems and Prospects. *International Journal of Research in Education and Sustainable Development*. 2015;10(1):19-30.
 56. Sekou DA, Sampson V. The impact of work environment on lecturers' productivity in Ghanaian Universities. *Journal of Business Management*. 2017;8(2):110-125.
 57. Sherzodovna Z, Anvarovna A. Factors affecting research productivity: A study of Nigerian Universities. *Journal*

- of Modern Education Review. 2019;6(2):101-117. 2019;9(3):12-31.
58. Soyemi DO. Authorship patterns in research output of College members in university-based research institutes in Nigeria. *Journal of Information and Knowledge Management*. 2018;9(2):34-39.
59. Taoreed OO, Murtala AM, Adewuyi MF, Danjuma IM. A review of research productivity of academics in Nigeria. *Education Journal*. 2019;1(4):3-12.
60. Taurai D. Determinants of academic research productivity in selected Kenyan universities. *South African Journal of Higher Education*. 2021;32(5):20-41.
61. Tetteh MG. Organisational climate and academic staff productivity in public universities in Ghana. *International Journal of Educational Research*. 2017;6(1):14-29.
62. Tettey W. Challenges of developing and retaining the next generation of academics: Deficits in academic staff capacity at African universities. Report of the Partnership for Higher Education in Africa. 2006. Available from: <https://www.foundation-partnership.org>.
63. Tijani A. Effect of work environment on employees' job performance: A study of selected oil and gas industry in Lagos, Nigeria. *Journal of Global Economics*. 2020;8(1):2-11.
64. Tshgofatso D. Investigating the impact of research culture on the productivity of academic staff in selected South African universities. *South African Journal of Higher Education*. 2018;32(3):13-20.
65. Ubaidullah A, Kayode CO, Omisore O. Assessing the impact of academic research on educational policy in Nigeria. *International Journal of Educational Policy Research and Review*. 2021;8(4):101-116.
66. Ugwulor M, Olasoji AA. Institutional and socio-economic factors influencing research productivity in Nigerian Universities. *International Journal of Educational Research*. 2018;7(1):15-32.
67. Ugwulor M. Determinants of academic research productivity in Nigeria: An empirical analysis. *International Journal of Higher Education and Research*. 2018;9(3):14-26.
68. Uthman A. Research productivity of academic staff in Nigerian Universities: A case study of University of Lagos. *International Journal of Higher Education Management*. 2016;3(1):17-28.
69. Van der Wal MT. Determinants of research productivity among academics: Insights from a South African University. *Journal of Education Management*. 2019;13(2):21-39.
70. Wobekj M. Factors affecting the research productivity of academic staff in Nigerian universities: An overview. *Journal of Educational Research and Reviews*. 2017;12(4):15-26.
71. Wocjeh J. The impact of work environment on employees' productivity: A study of Nigerian tertiary institutions. *Journal of Educational Research*. 2020;15(1):14-29.
72. Yetunde OO, Akande JO. Factors influencing research productivity of academic staff in public universities in South-West Nigeria. *International Journal of Library and Information Science*. 2018;10(2):13-21.
73. Zainuddin M. Predictors of research productivity among academic staff in Malaysian universities. *International Journal of Educational Research and Development*.