

Institutional Predictors of Research Productivity of Academic Staff in Nigerian Universities

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Abstract

This study focused on the influence of institutional factors on research productivity of academic staff in Nigerian universities. 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 universities. The study further established conducive organisational culture and environmental factors as well as adequate motivational factors for research productivity of academic staff in Nigerian universities. 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 universities. organisational culture and funding 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 universities. The study recommended provision of conducive environmental and motivational factors for academic staff research activities by university management in Nigerian universities

Keywords: *Institutional factors, Research productivity, Lecturers, Federal universities, 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 of 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 civilisation 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 faculty members is dependent on the number of publications they have. This requirement makes it mandatory for faculty members to be productive scholars.

Research productivity is viewed as the measure of an academic's achievement viewed in terms of quantity or quality of 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 and Sullivan, 2016). 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, includes number of publications in proceedings of conferences/workshop, research-oriented books, staff bulletins, subject books, technical reports, articles in refereed journals, pamphlets and monographs. Gunawan, Barasa and Tua, (2018), and this measure varies from one institution to another.

Research productivity is crucial to scholars, researchers' and learned members especially in the universities and central to the teaching capability of faculty 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 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 universities. This makes it crucial for employees who are faculty or 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 universities by developing curriculum, controlling the academic rules and creating a better method for students' learning. 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 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 referred national and international journals and textbooks. According to Okonedo (2015), research productivity in universities 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 universities 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) is of the view that that the most research productivity measure in Universities 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 federal universities in Nigeria is rather low, (Wenyng, 2012). This assertion is supported by Haliso and Toyosi (2013) 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, Ngulube and Onyanha (2017), affirm that research productivity of lectures 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 Cheng-Cheng Yang (2018), 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 faculty 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 faculty members, practice and standards (Dixon, 2015). Mantikayan and Abdulgani (2018) 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. Efforts at addressing the declining levels of research productivity of lecturers in Nigerian federal universities 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 TetFund 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 federal universities in Nigeria. Empirical evidence and observations have revealed institutional factors as having the tendency to influence research productivity of lecturers in federal universities in Nigeria.

Moreover, preliminary investigations revealed that there are few studies on research productivity of lecturers in federal universities 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 federal universities in Nigeria. Also, existing studies on research productivity focused on researchers in research institutes, (Edward, Faith and Mathew, 2016), but this study is interested on institutional factors in federal Universities in Nigeria. It is on this basis that this study intends to investigate the institutional factors that determine lecturers' research productivity in federal universities.

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 universities?
2. What are the dominant institutional factors available to support academic staff research productivity in selected Nigerian universities?

3. What relationship exists between institutional factors and academic staff research productivity in selected Nigerian universities?
4. What are the relative contributions of institutional factors to academic staff research productivity in selected Nigerian universities?

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 (Quy Hoo, 2015). 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. According to Philips and Okoronmah (2020), more general interpretation of productivity encompasses broader concerns about the outcomes achieved by the public sector. To some productivity is about working harder and longer hours while for others it is the return from investing more in capital (such as infrastructure and education investment). Holzer and Seok-Hwan (2014) argued that the concept of productivity has been utilised for many years and most times often simplified, misinterpreted and misapplied with various indicators proposed.

In the academia, the concept of research productivity is regarded as an indication of the success of lecturers which influences promotions, rank, levels, honorariums and lecturers' benefits, (Sahardi, Fuad and Rosyidi, 2018). In this assertion, emphasis is laid on quantitative rank of related journals, qualitative measures of total and average research productivity of faculty and quantitative measures of total and average research productivity. It has been reported that the benefit of research is the advancement of knowledge being created and communicated in an academic environment through scholarly seminars, conferences and publications. Ojo and Ilesanmi (2016) and University of Sydney (2018) viewed research as the creation of new knowledge and or the use of existing knowledge in a new way so as to generate knowledge. This implies synthesising literature and previous research. Okafor (2011), defined research productivity as an individual endeavour which is founded on intellectual input in finding out the real issues surrounding a particular matter. Okendo (2018) stated that research productivity refers to the work that has been researched upon and published in journals, book chapters, monographs, articles, technical reports, bulletin, conference papers, working papers, short communication papers, patents and standards. Madu and Dike (2012) were of the view that research productivity is the ability of the researcher to use his intelligent quotient to collect, modify and critically analyse information and come out with authentic results that could help in the advancement of knowledge.

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 Simisaye (2017) 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 productivity 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 Kyvik and Reymer (2017), 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 (Altbach, 2015).

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 implications, no lecturer or faculty will be promoted without a good number of publications. One of the major factors that has 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 Universities 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

Institutional factors are elements that affect the productivity of faculty and staff or employees in any institution or organization which may be external and internal. Institutional factors may be regarded as support programmes that are developed for members in the organisation (Dixon, 2015). According to Mantikayan and Abdulgani (2018), institutional factors may be in form of staff development and training, staff support, technical support and guidance, workload, research, promotion, financial rewards, social recognition, and leadership factors like appreciation and orientation which can influence employees such as lecturers' especially as it relates to their research productivity. Institutional factors affect the productivity of lectures if they are on the negative. Institutional factors may be regarded as criteria for identification of external and internal environmental output of an organization as it performs in two different levels. Institutional factors at environmental level could be managed by an organization if proper consideration and0 attention is given. Institutional factors of at organisational level show

reaction of an organisation to business environment and form internal environment of such organization (Fukushima and Peirce, 2011).

There are different factors that determines and influence lecturers research productivity. According to Kim and Ployhart (2014), an institutional factor is operationalised in terms of emphasis. Organisational culture in the areas of institutional research culture, leadership style organisational climate, work process and employee management and work ethics help to know if an employee is productive. Mafukho, Wekullo and Muyia (2019) observed that amongst recognised underlining instructional factors affecting research productivity of lecturers in universities are gender, institutional terminal degree, rank, discipline and work experience. The study therefore opined that paradigm shift in faculty and university policy of performance contracts and self-reported instruments currently in use for lecturer's research productivity, is best option.

Another factor is the environment where the lecturers are working. That is, research environment cum research resources and facilities such as infrastructures, office space and other facilities. Motivational factors such as work time for research, availability of loading research academics, research networks and communication channels, postgraduate teaching and supervision opportunities, research collaboration, availability of mentoring system and research assistance, promotion of creativity and curiosity, peer recognition and support, reward and incentive system are also recognised institutional factors that determine lecturers' research productivity. Funding is another factor that must be taken into consideration such as availability of research funding, availability of travel money/grants as incentive for research activities, access to local grants, and access to international funding and institutional funding of research reports. In other words, funding is considered as an essential tool to aid research productivity of university lecturers.

Okiki (2013) opined that research productivity of the teaching faculty members is high in the areas of journal publications, technical reports, conference papers and occasional papers, the implication is that large number of federal universities 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) who identifies low internet bandwidth and financial constraints as an impediment to lecturers' research productivity in federal universities 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 federal universities in the six geopolitical zones of Nigeria (Preliminary investigation, 2020). Multi-stage sampling procedure was adopted in selecting the sample for the study. Purposive sampling technique was adopted in selecting the oldest federal university in each of the six geo-political zones in Nigeria viz: University of Ibadan, Oyo State (South-West); Ahmadu Bello University, Zaria, Kaduna State (North-Central); University of Maiduguri, Borno State (North-East); University of Benin, Edo State (South-South); University of Ilorin, Kwara State (North-Central) and University of Nigeria, Nsukka,

Enugu State (South-East). At the second stage, purposive sampling technique was used to select 5 faculties that are commonly available in all the selected universities viz: Faculties of Science, Agriculture, Social Science, Law and Arts. These faculties are popular ones in universities with vibrant academic programmes. Also, purposive sampling technique was used to select one department that is commonly available in the selected faculties. Therefore, Departments of Computer Science (Faculty of Science), Animal Science (Faculty of Agriculture), Sociology from (Faculty of Social Science), Law (Faculty of Law) and History (Faculty of Arts) were selected. 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, faculty, 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 universities and comprise of 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 Ogunjobi (2015) and Oshinaike (2020). The questionnaire was administered on 30 lecturers of Obafemi Awolowo University, Ile Ife, Osun 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

Data analysis and 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 be inferred that most of the academic staff surveyed are in their early and middle career levels which requires 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 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 II and Senior Lecturers. 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 Questions 1: What is the level of academic staff research productivity in selected Nigerian universities?

Table 2: Research Productivity of Academic Staff in Nigerian Universities

S/A	Production (Quantity)	VH	H	AV	L	V.L	\bar{x}	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 universities in Nigeria. The result shows that most of the academic staff ranked average on all parameters of quantity of production viz: annual research publications ($\bar{x} = 3.51$), total number of all types of publications ($\bar{x} = 3.44$), the total number of my peer reviewed journals publications ($\bar{x} = 3.30$), the total number of peer reviewed textbooks published ($\bar{x} = 3.23$), the total number of my peer reviewed Chapters in books ($\bar{x} = 3.20$), the total number of my peer reviewed conferences proceedings ($\bar{x} = 3.16$) and total number of patents & technical reports ($\bar{x} = 3.15$). 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 universities, in terms of quantity of production, is average.

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

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

S/N	Institutional factors	SA	A	D	SD	\bar{x}	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
S/N	Environmental Factors	SA	A	D	SD	\bar{x}	Std. Dev	Rank
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
S/N	Motivational Factors	SA	A	D	SD	\bar{x}	Std. Dev	Rank

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
S/N	Funding	SA	A	D	SD	\bar{x}	Std. Dev	Rank
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		

Table 3 presented information on the institutional factors for research prevalent in federal universities 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 universities 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 federal universities in Nigeria, the result of the analysed data revealed 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 universities 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 universities 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 federal universities in Nigeria. Meanwhile, on the overall, supportive institutional factors were established to be available for research activities by academic staff in the selected Nigerian universities.

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

Table 4: Result Showing The Relationship Between Institutional Factors and Research Productivity of Lecturers in Selected Nigerian Universities

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

*Sig. at .05 level

Table 4 presents result on the relationship between institutional factors and research productivity of academic staff in Nigerian universities. The result shows that there is significant positive relationship between institutional factors and research productivity of academic staff in Nigerian universities ($r = .424$, $N = 540$, $p < .05$). 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 universities 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 universities.

Research question 4: What are the relative contributions of institutional factors (Organisational culture, Environmental factors, Motivational factors and Funding) to academic staff productivity in selected Nigerian universities in Nigeria?

Table 5: Relative contribution of institutional factors (Organisational culture, Environmental factors, Motivational factors and Funding) to academic staff productivity in selected Nigerian universities in Nigeria

Model	Unstandardised Coefficients	Standardized Coefficient		t	Sig.
	Beta	Std. Error	Beta (β)		
(Constant)	16.562	2.397		10.275	0.000
Organisational Culture	.557	0.169	0.205	3.301	0.001
Environmental Factors	-0.315	0.163	0.056	0.826	0.073
Motivational factors	0.203	0.176	0.070	1.157	0.000
Funding	0.385	0.147	0.166	2.623	0.002

Table 5 presented the result of relative contributions of institutional factors to academic staff research productivity expressed as beta weights using the standardised regression coefficient. Organisational culture was the most potent institutional factors followed by funding ($\beta = 0.166$, $t = 2.623$, $p < 0.05$). Environmental factors was found to be the least potent institutional factors for research productivity of academic staff in Nigerian universities ($\beta = -0.056$, $t = -0.826$, $p > 0.05$). The implication to be drawn from the result is that organisational culture and funding are the most important factors that influence for research productivity of academic staff in Nigerian universities.

Discussion of findings

The level of academic staff research productivity in federal universities in Nigeria was established to be average which implies that academic staff in federal universities in Nigeria are averagely productive as regards their research activities. This result is at variance the findings of Okiki (2013) that reported high level of productivity, in terms of journal publications, technical reports, conference papers, working papers, and occasional papers, among lecturers in federal universities 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 federal universities in Nigeria. This finding is in agreement with that of Nguyen, Nguyen and Dao (2021) 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 that of Henry, Ghani, Haron, Hamid, Bakar and Rahman (2018) that emphasised institutional decision to fund research activities of lecturers propelling force to make better commitment to research endeavours. When the policies favour research activities, the tendency is high for lecturers to commit themselves to it, knowing that they do not have to use their personal income to sponsor research activities.

Furthermore, organisational culture and funding were found to be the major institutional factors that determine academic staff research productivity in federal universities in Nigeria. This finding supports that of Uwizye, Karimi, and Thiong'o, (2021) which established institutional factors as major determinants of research productivity of teaching faculty members. It is also in tandem with the work of Feyera, Atelaw and Hassen (2017) that discovered the relationship between research productivity of lecturers and prevalent institutional factors and emphasised

that organisational culture plays important role in the outcome of lecturers' engagement in research.

Summary and Conclusion

This study investigated the influence of institutional factors on academic staff research productivity in federal universities in Nigeria. Institutional factors were established to be major determinants of lecturers' research productivity in federal universities 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 universities. Research productivity of academic staff in federal universities in Nigeria in terms of quantity of production was found to be on the average. The study thus, concluded that favourable institutional factors can improve the research productivity level of the academic staff in federal universities in Nigeria. Therefore, it is expected that improvement in organisational culture and adequate funding for research in the universities would lead to improved research productivity of the academic staff.

Recommendations

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 federal universities in Nigeria. Therefore, university 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.

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