Academic Staff Research Productivity in Private Universities in Southwestern Nigeria: Factors Related to Low Research Productivity

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ABSTRACT

Research productivity (teaching, research, and community service) in any university is the totality of academic staff academic achievement within a given period of time which is partly used for university ranking. There has been a renewed interest in the debate about the quality and quantity of research output and the factors which influence the output of university lecturers at the same time. Therefore, this study assessed the level of academic staff research productivity in private universities in Southwestern, Nigeria. The survey design of the correlational type was adopted. Proportional to size and stratified random sampling techniques were used to select 30% of academic staff across the various ranks in the selected universities, making a total of 657. Academic staff research productivity (= 2.02) was low as against the norm test of 3.00. Low research productivity can be overcome if investment in research at private universities is increased and academic staff utilise them in line with the emerging digital trend in universities around the world.

KEYWORDS

Academic staff in Nigerian private universities, Research productivity

INTRODUCTION

Research productivity provides a good platform for academic staff to become successful. University lecturers are today being asked to increase their research output and productivity in order to meet the ever-changing demands of the 21st century. This is because research productivity shows the development of academic knowledge and reinforces the skills needed for effective knowledge transfer

DOI: 10.4018/IJORIS.331696

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count" (Hadjinicola and Soteriou, 2005). Academic staff members conduct research, and their productivity is measured in various ways. Research productivity in academic institutions is reflected in the number and quality of articles published by the affiliated faculty. Often, departments evaluate their faculty on their "publication Research provides a good platform for academic staff members to become successful academics. This is because research develops academic knowledge and reinforces the skills needed for effective knowledge transfer. It also inspires academics towards hard work, fills the gaps of previous researches and creates an opportunity for future research.

Research is required for the improvement of general knowledge; research enables the academic staff to understand their own selves, to analyse their own abilities; research also enables the academic staff to fully understand their disciplines, which is imperative for effective teaching and learning. Egwunyenga (2008) defined academic staff as individuals employed in academic institutions whose responsibilities are to teach and conduct research leading to improvement in society. In his study, Popoola (2008) referred to them as lecturers and defined them as staff in academic institutions whose duties pertain to teaching, learning, research and community services. Irrespective of the fact that these authors have different terms for academic staff, they agreed on their functions.

Private universities are universities owned and funded by an individual, established primarily to support and cater for teaching, learning and research activities of the parent institution. Private universities are set up primarily to deliver quality education. Quality, in turn, is a function of cost-effectiveness; the capacity to apply state-of-the-art technology; accountability and transparency in expenditure and governance; strict adherence to the requirements set out in the academic brief, master plan and strategic plan; and uncompromisingly strict adherence to the estimates contained in the annual budget (Osagie, 2009). In the words of Isibor (2011), the positive impact private universities had on the development of education in Nigeria cannot be overemphasised. According to him, private universities have impacted positively on the education sector. In 1993, the federal government provided the law for the establishment of private universities in Nigeria; and in 1999, three pioneer private universities were established: Babcock University, Ilishan-Remo; Igbinedion University, Okada; and Madonna University, Okija. Thus, universities in Nigeria are managed by the federal and state governments, as well as individuals/organisations depending on ownership.

The universities that are managed by the federal/state governments are referred to as public universities, while those owned by individuals/organisations are private universities. Many of the private universities in Nigeria are relatively new and operate with a limited number of academic and other staff. One of the unique qualities of private universities in Nigeria is that they have very few regular staff. The general trend is that of a large number of part-time academic staff or sabbatical staff and a very few numbers of full-time academic staff. This feature is not peculiar to Nigeria alone. In a study carried out by Varghese (2004), it was found out that reliance on part-time academic staff is a common feature of private universities irrespective of their locations and orientations. According to the National Universities Commission (NUC), Nigeria presently has 43 federal universities, 52 state universities and 79 private universities.

Globally, the top-ranking league universities are, indeed, private. Of the top 50 universities in the world in 2012, 35 were in the USA, and only one of them, the University of California, Berkeley, is public while the rest are private.

A number of private universities, such as Afe Babalola, Bowen and Babcock, now run very good medical programmes. Recently, surgeons from the Babcock University School of Medicine successfully carried out a heart surgery in their newly constructed Tristate Heart and Cardiovascular Centre (Daily Trust, Oct. 12, 2015, p. 14), while Landmark University is blazing a commendable trail in agriculture in its attempt to be a world-class university with an agrarian focus. Redeemer's University Centre for the Genome of Infectious Diseases (ACEGID) came first of all the 19 ACEs in the west and central Africa, and it is turning out to be a novel world-class centre of excellence, having been instrumental in the diagnosis of the first case of Ebola Virus Disease (EVD) in Nigeria. ACEGID scientists also successfully sequenced the Ebola virus from Sierra Leone and have, indeed, developed

a rapid response diagnostic tool that could detect the Ebola virus in 15 minutes. Publications from their work are finding space in top impact journals such as Science, Nature, New England Journal of Medicine and Cell (Faborode, 2015).

The South-west is one of the six geo-political zones in Nigeria. Others include South-South, South-East, North-Central, North-West and North-East. South-west of Nigeria comprises the following states: Lagos, Ogun, Oyo, Osun, Ondo and Ekiti. These states are homogeneous because they share a similar culture, ethnic nationality and common history. It is densely populated and houses a large percentage of the universities in Nigeria (both private and public). Presently, there are 14 public universities and 36 private universities scattered all over the zone. Private universities are a fast expanding segment of the Nigerian University educational system. In terms of number, private universities outnumbered the federal government universities in Nigeria. In the light of the foregoing analysis, this study assessed the level of academic staff research productivity in private universities in Southwestern Nigeria.

Research Questions

The study sought answers to the following research questions:

- i. What is the level of research productivity of academic staff in private universities in southwestern Nigeria?
- ii. What is the socio-demographic characteristics (such as designation, academic status and gender distribution) of academic staff in private universities in southwestern Nigeria?

Literature Review

Literature reveals that a few studies have been conducted into the research productivity of academic staff members in private universities in Nigeria. Many of the private universities in Nigeria are relatively new and operate with a limited number of academic and other staff. One of the unique qualities of private universities in Nigeria is that they have very few regular staff. The general trend is that of a large number of part-time academic staff or sabbatical staff and a very few numbers of full-time academic staff. This feature is not peculiar to Nigeria alone; in a study carried out by Varghese (2004), it was found out that reliance on part-time academic staff is a common feature of private universities operate without any regular staff. Several studies have been conducted to examine the relationship between research output and the factors that support researchers in their efforts to publish. Different variables were identified that correlate with research output. Earlier studies primarily focused on analyzing the association of productivity with variables such as institutional size, academic rank, age, gender and so on. More recent studies incorporate psychological and other latent variables in analyzing productivity and visibility.

Academic staff are expert scholars, thus very knowledgeable in their subject areas, has personality attributes that promote rapport with students, are organized, deliver well-prepared lectures, humane, give out handouts and extra reading materials, fair and actively engage students in the learning process (Kamla, 2011). The quality and quantity of academic staff available in Nigeria are too short of the need of the public universities, let alone having an adequate number of academic staff. Most of the senior academic staff used for accreditation purpose is either on sabbatical or on part-time appointment because they are fully employed by the public universities which have better conditions of service for them. Those on regular appointment with private universities are young graduates who are not PhD holders as prescribed by NUC to be the minimum appointment in the public university where they will equally enjoy better conditions of service. There is most likely to be a dearth of academic staff in private universities in the future if their conditions of service remain unattractive. As users of the information community, academic staff members are faced with diverse, abundant information

choices in their pursuit of knowledge because of the complexity of information sources and formats. This poses new challenges to academic staff members in evaluating and understanding the content. The uncertain quality and expanding quantity of information pose big challenges to any society. It is evident from the literature that access to information resources can immensely improve academics' research productivity. One of the critical factors used in determining academic productivity is research output. "Apart from competence in professional duties, research and publications are compulsory indices or indicators of assessment of academic productivity of lecturers" (Joyce 2006). Information plays a central role in achieving the successful work performance of academic staff.

Okafor (2010) undertook a study entitled, "Analysis of Research Output of Academics in Science and Engineering Faculties in Southern Nigeria." The study adopted a descriptive survey approach. A stratified random sampling method was used to select six universities out of thirteen in the area of study. The sampled population was 291 academics. The questionnaire was used as an instrument for data collection. Descriptive statistics and t-test were used to analyze the data collected. The study found that the mean of publication output varied in two faculties, with the Faculty of Science publishing more articles with a grand mean score of 10.02 while the Faculty of Engineering published less with a grand mean score of 7.58. It equally found out that there was a significant difference in the publication output between the academic staff in the Faculty of Science from those in the Faculty of Engineering.

It further revealed that within the science faculty, academic staff in Zoology Department published more than those in Computer Science. It also revealed that within the Faculty of Engineering, academic staff in Petroleum/Chemical Engineering turned out more publication output than others. The followings were some of the recommendations of the study: provision of research equipment and materials in areas of sciences; provision of the conducive research environment in order to enable academic staff in Science and Engineering to increase their publications output, equipping the library with relevant books, journals, e-journals, Internet facilities and other necessary library resources to facilitate research output of academics in Nigerian universities.

In related research, Bassey, Akuegwu, Udida and Udey (2007) studied academic staff research productivity in universities in the South-South geopolitical zone of Nigeria. An ex-post-facto design was adopted for the study. The population was 3120 academic staff in the 11 universities in the zone. A stratified random sampling technique was employed in the selection of 480 respondents made up of 280 males and 200 females. The findings of the study revealed that male academic staff in Nigerian universities engages in more research activities than their female counterparts and that married academic staff turn out more publications than their unmarried colleagues with a mean score of 17.12 research productivity for married academic staff's area of specialization significantly influenced their publication output. The following recommendations were made by the study: provision of enabling environment in the universities for more research-oriented activities; equal opportunities for academic staff with regard to research work; and government making more funds available to universities for the purpose of fostering research activities. The recommendations of this study are important to the present research. Also relevant to the present study is the use of t-test for data analysis, the design and the scope.

Demographic factor has been seen as a frequent factor that has been associated with librarians' research productivity. Babalola (2014) identified ten personal characteristics affecting research productivity. These include personal motivation, research training, mentors, early scholarly habit, socialization to academic values, and network of productive colleagues, resources and sustainable uninterrupted time. The demographic factors of concern to this study there are age, gender, marital status, years of experience and educational qualification. A number of studies have been carried out on age and research productivity, but the outcomes of such studies produced contradictory correlations or conflicting results. Teodorescu (2000), in a study carried out in the United States, revealed that age significantly influences research productivity. In another study conducted by Lertputtarak (2008), the respondents agreed that the most important of these demographic factors are the age of the staff

member. Okenedo's (2015) findings on the research and publication productivity of librarians in public universities in South-west Nigeria revealed that publication productivity of librarians was high within the period of 2009-2014. When ranking the publications by types, it was discovered that articles in learned journals ranked highest, followed by conference proceedings and chapters in books.

The reasons for this may be a result of the fact that journal articles are easy, less time-consuming and cheaper to publish compared to textbooks, monographs and so on. The findings were also in agreement with the finding of Ogbomo (2010), who reported that librarians most often publish in refereed and non-refereed journals in the LIS field.

METHODOLOGY

The survey design of the correlational type was adopted. Twenty-one private universities out of the 27 approved between 1999 and 2012 were purposively selected. The main research instruments used to collect data for the study was the questionnaire. Proportional to size and stratified random sampling techniques were used to select 30% of academic staff across the various ranks in the selected universities. Consequently, a sample size of 935 was selected for the study. Out of 935 copies of the questionnaire administered, 717 copies were returned and only 657 (70.2%) copies were found usable and valid for analysis.

Questionnaire Administration and Response Rate

The population size for the study consisted of 935 academic staff in the 21 private universities in southwestern Nigeria selected for the study. Out of 935 copies of the questionnaire administered, 717 copies were returned and only 657 (70.2%) copies were found usable and valid for analysis as shown in Table 1. The response rate is considered adequate for this study because Malaney (2002) reported that the standard and acceptable response rate is 60% while Nulty (2008) reported a 56% response rate for paper based survey.

It could be observed from Table 1 that Redeemer's University, Ede,Osun State which had 43 of the respondents had the highest return rate of 100% while Pan-Atlantic University, Lagos and McPherson University, Seriki Sotayo, Ajebo had the least return rate of 55.2% and 50.0% respectively. The low response rate from McPherson University, Seriki Sotayo, Ajebo was accounted for by the fire outbreak in the office of the college officer in the campus as at the time of administering the instrument. This response is justified by Bartlett, Kotrlik and Higgins (2001) who recommended a sample size of 399 for a population of 1,000 (39.9%) and 461 for a population of 1,500 (30.7%). Also, Baro, Endouware and Ubogu (2011) used and recommended a sample size of 350 for a population of 1,050 (33.3%). In addition, the overall return rate of 70.2% used for the study is far higher than the submission of Peterson and Demark-Wahnefried (2004) that 60% is acceptable standard for most research.

Demographic Information of the Respondents

Table 2 shows the distribution of the respondents by faculty. The result shows that out of the 657 respondents that were part of this study, 256(39.9%) were from Science, Social/Management Sciences (28.8%), Library (8.4%), Arts/Humanities (7.5%), Engineering (5.3%), Environmental Studies (4.0%), Law (2.3%), Nursing Science (1.3%), Leadership Development Studies (0.9%), Basic Medical Science (0.8) and Agriculture (0.8%). The result implies that majority of the respondents were from the Faculty of Science.

The distribution of the respondents by academic status as shown in Fig. 1 indicates that 69(10.5%) were assistant lecturers, 143(21.8%) were lecturer II, 201(30.6%) were Lecturer I, 109(16.6%) were senior lecturers, 38(5.8%) were associate professors/readers, 31(4.7%) were professors, 11(1.7%) were assistant librarians, 15(2.3%) were librarian II, 10(1.5%) were librarian I, 5(0.8%) were senior librarians, 15(2.3%) were principal librarians, 5(0.8%) were deputy university librarians and 5(0.8%) were university librarians. This implies that most respondents are Lecturer I, II and Senior lecturer.

Table 1. Questionnaire distribution and response rate

S/N	Names of universities	Number Distributed	Questionnaire returned	No of usable questionnaire	Percentage (%) response rate
1.	Achievers University, Owo	18	15	15	83.3
2.	Adeleke University, Ede	38	29	29	76.3
3.	Afe Babalola University, Ado-Ekiti - Ekiti State	135	111	101	74.8
4.	Ajayi Crowther University, Oyo	34	32	32	94.1
5.	Babcock University, Ilishan-Remo	108	86	77	71.2
6.	Bells University of Technology, Ota	57	36	31	54.3
7.	Bowen University, Iwo	49	47	45	91.8
8.	Caleb University, Lagos	24	19	15	62.5
9.	Covenant University Ota	168	86	76	45.2
10.	Crawford University Igbesa	22	19	14	63.6
11.	Crescent University, Abeokuta	27	23	22	81.4
12.	Elizade University, Ilara-Mokin	16	13	13	81.2
13.	Fountain University, Osogbo	31	31	28	90.3
14.	Joseph Ayo Babalola University, Ikeji-Arakeji	29	22	21	72.4
15.	Lead City University, Ibadan	38	32	26	68.4
16.	McPherson University, Seriki Sotayo, Ajebo	12	6	6	50.0
17.	Oduduwa University, Ipetumodu - Osun State	21	18	18	85.7
18.	Pan-Atlantic University, Lagos	38	23	21	55.2
19.	Redeemer's University, Ede	43	43	43	100.0
20.	South-western University, Ijebu Ode	12	11	11	91.6
21.	Wesley University of Science & Technology,Ondo	15	15	13	86.6
	Total	935	717	657	70.2

Table 2. Distribution of respondents by faculty

Faculty	Frequency	Percentage	
Science	256	39.9	
Social/Management Science	189	28.8	
Arts/Humanities	49	7.5	
Engineering	35	5.3	
Agriculture	5	0.8	
Law	15	2.3	
Basic Medical Science	5	0.8	
Nursing Science	10	1.3	
Environmental Studies	26	4.0	
Library	55	8.4	
Leadership Development Studies	12	0.9	
Total	657	100.0	

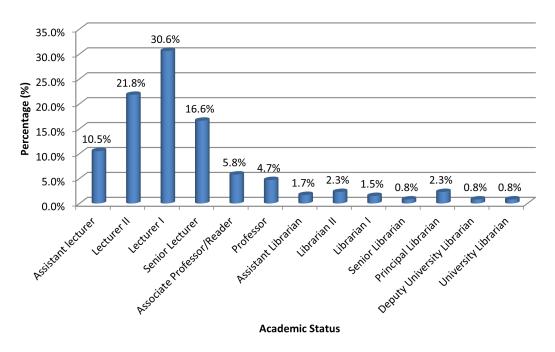
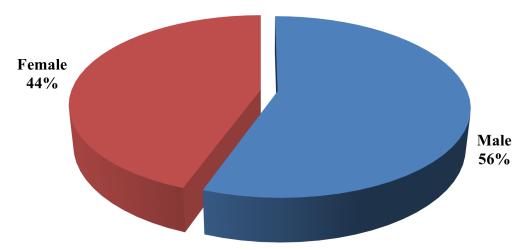


Figure 1. Bar chart showing distribution of respondents by academic status

Figure 2 shows the gender distribution of the respondents. The result shows that out of the 657 respondents who were part of this study, 365(55.6%) were males while 292(44.4%) were females. This is an indication that majority of the respondents were males.

In Table 3, the mean score computed for the level of research productivity of the academic staff in private universities in South-west, Nigeria shows that they published most of their articles in learned journals (mean=2.90, SD=1.34). This is closely followed by ongoing research (mean=2.27, SD=1.34) and papers published in conference proceedings (mean=2.13, SD=0.85), while other research productivity such as the curriculum development, occasional paper, monographs, working





S/No.	Research Productivity	15above	10 to14	5 to 9	1 to 5	None	Mean	Std.D
		(5) N (%)	(4) N (%)	(3) N (%)	(2) N (%)	(1) N (%)	(x)	
1	Total articles in learned journals	113 (17.2%)	141 (21.5%)	113 (17.2%)	201 (30.6%)	89 (13.5%)	2.90	1.34
2	My annual research publication	36 (5.5%)	48 (7.3%)	124 (18.9%)	381 (58.0%)	68 (10.4%)	2.27	0.88
3	Ongoing research	31 (4.7%)	57 (8.7%)	46 (7.0%)	386 (58.8%)	120 (20.8%)	2.27	0.99
4	Papers published in conference proceedings	21 (3.2%)	48 (7.3%)	139 (21.2%)	324 (49.3%)	125 (19.0%)	2.13	0.85
5	Lecture series materials	57 (8.7%)	48 (7.3%)	88 (13.4%)	262 (39.9%)	202 (30.7%)	2.09	1.15
6	Chapters in books	48 (7.3%)	72 (11.0%)	36 (5.5%)	366 (55.7%)	135 (20.5%)	2.07	0.87
7	Books edited/reviewed	48 (7.3%)	57 (8.7%)	67 (10.2%)	242 (36.8%)	243 (37.0%)	1.90	0.94
8	Total number of textbooks published	-	42 (6.4%)	48 (7.3%)	231 (35.2%)	336 (51.1%)	1.57	0.81
9	Curriculum development	-	48 (7.3%)	42 (6.4%)	211 (32.1%)	356 (54.2%)	1.55	0.81
10	Supervision of PG students on dissertations	-	48 (7.3%)	42 (6.4%)	241 (36.7%)	326 (49.6%)	1.53	0.62
11	Technical papers	21 (3.2%)	48 (7.3%)	21 (3.2%)	144 (21.9%)	423 (64.4%)	1.44	0.85
12	Monographs	-	-	48 (7.3%)	247 (37.6%)	362 (55.1%)	1.41	0.49
13	Community service	-	48 (7.3%)	21 (3.2%)	190 (28.9%)	398 (60.6%)	1.38	0.55
14	Bibliographies compiled	-	21 (3.2%)	48 (7.3%)	159 (24.2%)	429 (65.3%)	1.36	0.66
		Weighted Average = 2.02						

Table 3. Level of research productivity of the academic staff (N=657). The ratio is on a 5-point scale, 15 and above (5), 10 to 14 (4), 5 to 9 (3), 1 to 5 (2), none (1)

paper and bibliographies were poorly considered by academic staff. The weighted average of 2.02 shows a clear indication that the academic staff has a low level of research productivity.

RESEARCH PRODUCTIVITY (RP)

Maximum scores obtainable from the 14 -item scale on RP (5 x 14) = 70 The average score is (5+4+3+2+1)/5=15/5=3.0Interval score (70/5)=14

Norm test (see Table 4 for details) was carried out in order to analyse the level of research productivity of academic staff. The score range indicated that 1-14 represents very low research productivity, 15-28 represents low research productivity, 29-42 represents moderate research productivity, 43-56 represents high research productivity 57-70 represents very high research productivity. It could be observed that the weighted mean score for level of research productivity of academic staff is 2.02 which fall within the range of low level of research productivity of academic staff. Consequently, academic staff research productivity ($\bar{x} = 2.02$) was low as against the norm test of 3.00. Overall, the result indicated a low level of research productivity of academic staff in private universities in southwestern Nigeria.

Interval	Weighted mean score image	Remark	
None			
1-14	2.02	Very Low	
15 - 28		Low	
29-42		Moderate	
43-56		High	
57-70		Very High	

Table 4. Interval table for research productivity of respondents

DISCUSSION OF FINDINGS

Research Productivity of Academic Staff in Private Universities in Southwestern Nigeria

In order to ascertain the level of research productivity of academic staff in Nigerian private universities, the respondents responded on the number of publications and academic activities on the job within the last ten years. The result of the Norm test on the level of research productivity of academic staff showed a low level of research productivity of academic staff.

The analysis revealed that the highest possible mean score was 56 and the score range indicated that 1-5 represents low research productivity while 15 and above connotes very high research productivity of academic staff in Nigerian private universities in South-west Nigeria. The weighted mean score for the level of research productivity of academic staff is 2.20, which fall within the range of low level of research productivity of academic staff. Overall, the result indicated a low level of research productivity of academic staff.

The result of the analysis showed that they published most of their articles in learned journals (mean=2.90, SD=1.34). This is closely followed by ongoing research (mean=2.27, SD=1.34) and papers published in conference proceedings (mean=2.13, SD=0.85), while other research productivity such as the technical papers, curriculum development, monographs, community service and bibliographies were poorly considered by academic staff. The weighted average of 2.02 shows a clear indication that the academic staff have a moderately low level of research productivity. This result is quite unexpected because of the importance of research productivity in the lives of academic staff. Literature reviewed show that publication output is highly associated with academic staff appointment, tenure, promotion/career advancement, contribution to knowledge as well as personal/institutional visibility. What this means is that copyrighted inventions were low among academics in Nigeria.

Thus, the analysis establishes the fact that the research productivity of the academic staff in private universities in Southwestern Nigeria is higher in journal publications, conference papers, chapters in books and books reviewed. Furthermore, the research productivity of the academic staff in private universities in Southwestern Nigeria is on the average in the total number of textbooks published, chapter in books/co-authored books. However, the research productivity of the academic staff in private universities in South-west Nigeria is lower in technical papers, curriculum development, working papers, bibliographies compiled, monographs, patents and certified inventions. In Nigeria, university regulations state that academic staff members are to be evaluated for promotion every three years. The result shows that 381, representing 58.0% of the respondents, had between 1 to 5 articles in learned journals as an annual research publication. This result strongly confirms the culture of publishing or perish that is a popular cliché among academics in Nigerian university settings.

The result as obtained in the study is in line with the findings of Popoola (2002), who used a questionnaire to find out the research output of social scientists in Nigerian universities to determine the research output of the number of their publications that appeared in the refereed publication outlets

in the preceding three years by types of publication. The publication types were: books, chapters in books, journal article, conference proceedings and technical reports. Journal articles top the list of research output of the respondents in the three years (1999-2001) with a mean of 12.0. On the whole, the social scientists in the Nigerian university system produced an average of 7.0 publications from 1999 to 2001, with an average of approximately two publications per year.

In another study, Oduwole and Ikhizama (2007) used the survey method to ascertain the research output of librarians in Nigerian agricultural research institutes. They found out that the librarians' research output, although generally low, was related to their work experience. Cheimeke et al. (2009) also investigated the research output of Nigerian tertiary institutions using nine journals randomly selected from African Journals Online (AJOL). They found out, among other things, that research papers from Nigeria in the journal accounted for 39.1% of the total number of publications in the journals during 1999-2005.

However, these findings corroborate the results posted by some other studies on the publication output of academic staff. For instance, Tower, Desai, Carson and Cheng's (2005) study revealed a low level of publication output among academic staff in Accounting in Australian universities. Also interesting is the work of Ogbomo (2010) which reported a low level of publication output among academic librarians in Delta State University, Abraka, Nigeria. Ogbomo's study is equally surprising because observations have shown that academic librarians in Nigeria engage in extensive research and have produced a high level of publication output.

On the other hand, one may associate the low level of publication output among the academic staff of private universities in Southwestern Nigeria to their average level of electronic database utilisation. By not utilising electronic databases extensively, these staff obviously lacked the necessary information for high-level publication output because publication output is fundamentally a product of adequate utilisation of electronic databases. The result of this study is also in line with the report by Foster, Heppensta, Lazarz and Broug (2008). They revealed a low level of research productivity by academic staff in African universities, which they attributed to the poor state of accessibility and utilisation of electronic information resources.

The result is also in line with Anyaogu & Mabawonku (2014), who investigated the impact of resources availability and utilisation on the productivity of law lecturers in Nigerian universities. Using descriptive survey research design, the study reported that legal information resources such as law textbooks, periodicals, reference materials, law reports, legislation and statutes, newspapers, indexes and abstracts, digests and so on are readily available to the lecturers; electronic resources and online legal databases are less available; law reports, periodicals, legislations and statutes, indexes and abstracts, law textbooks, e-resources and so on are used by law lecturers in the course of research activities. The study concluded that "the research productivity of the law lecturers was higher in the publication of journal articles, chapters in books, conference proceedings, and foreign journals but low in co-authored books, textbooks and occasional papers.

The result of this study is at variance with the findings of Okenedo (2015) on the research and publication productivity of librarians in public universities in Southwestern Nigeria. The result reveals that the publication productivity of librarians was high between 2009 and 2014. When ranking the publications by types, it was discovered that articles in learned journals ranked highest, followed by conference proceedings and chapters in books. The reasons for this may be a result of the fact that journal articles are easy, less time-consuming and cheaper to publish compared to textbooks, monographs and so on.

However, the respondents' comments on (research productivity) were compared with that of research publications, and it was found that academic staff in Covenant, Babcock, Bowen and Redeemers universities were more productive than their counterparts in other private universities surveyed, particularly in terms of international publications as captured by The Web of Science. The importance of international publication, as noted by Atakan et al. (2008), cannot be overemphasised as international publication is considered as the most important factor in the assessment and evaluation

of academic staff and universities around the world. The result of the level of research productivity is consistent with that of Ani and Onyancha (2011), who found that the University of Ibadan was the most productive university in Nigeria while the University of Calabar was placed at the 10th position.

It is also evident that most academic staff in private universities are publishing more papers in the local/national journals (or journals) that are not indexed by The Web of Science. Mullen (2008) stated that "If the journal isn't part of Web of Science, it is less likely to be considered "prestigious" by some faculty bodies. If it is not included in Web of Science, it will not have a published "impact factor". This is because journals with high impact factor are often more cited than other journals and, therefore, considered prestigious. Thus, publishing in such journals will provide visibility as well as impact in the field of the discipline. The low level of publications of academic staff at most private universities in international journals is attributed to their relative average level of awareness and utilisation of electronic databases of high impact journals.

Demographic Characteristics of Academic Staff

The respondents' demographic variables indicated a wide disparity in gender representation in private universities in Southwestern Nigeria. 55.6% of the respondents, being males compared with 44.4% females, affirmed the dominance of males in the surveyed private universities as academic staff as widely reported in the literature. These findings supported Bassey, Akuegwu, Udida & Udey (2007) in their study of academic staff's research productivity in universities in the South-South geopolitical zone of Nigeria. The study's findings were that male academic staff in Nigerian universities engages in more research activities than their female counterparts and that married academic staff turn out more publications than their unmarried colleagues with a mean score of 17.12 research productivity for married academics against 14.05 means score for the single academics. The study also revealed that the academic staff's areas of specialisation significantly influenced their publication output.

In Nigeria, several studies have found that female scientists publish at lower rates than male scientists. Bassey et al. (2007) report a higher level of research productivity by male faculty members. The potential effect of marital status on research productivity, as written by Oloruntoba & Ajayi (2006), is centred on the premise that women generally carry more of a family burden than men, which acts as a deterrent factor to women allocating additional time to research. Other researchers have noted that female faculty members are lagging behind their more experienced male faculty members in research productivity (Riahinia & Azimi, 2008; Ogbogu, 2009); while Ogbogu (2009) categorically stated that the relationship between gender and research productivity had been addressed in many studies adding that little if any, and sometimes, contradictory correlations, have been found. The survey carried out by Ogbogu (2009) on the analysis of female research productivity in Nigerian universities revealed that female research output was generally low. He reported that 59.5% of female academics published one paper annually; 23.6% published up to two articles; 1.1% published three papers, and 15.8% did not publish on an annual basis. The study concluded that female academics made contributions that are more significant to teaching than research.

This study found that the majority of the lecturers were in the lecturer cadre I and lecturer cadre II, respectively, and the other cadres of academic were represented as well. Expectedly, the respondents with the professional ranks of "Reader/Associate Professor" and "Professor" received minor responses of 5.8% and 4.7%, respectively, as they are comparatively few, besides their relative involvement in administrative tasks. These categories of academic staff are usually Heads of Departments, Deans or Directors, and their busy schedules may not allow them to participate in the completion of questionnaires during surveys compared with their counterparts in other professional ranks (junior colleagues). In the literature, the outcome of some studies indicated that the relationship between publication outputs and age is not linear, implying that the rate of publishing generally did not decline with age. For instance, Leahey (2006), in a study using a random sampling of 228 colleges and universities in the United States that offered agricultural education, reported no significant evidence that age determined a drop in research productivity.

The studies further revealed that most respondents were from the Faculty of Science, followed by faculties of Social and Management Sciences and Humanities. The three (3) faculties are common in most private universities. This may also indicate the respondents' relative higher availability and willingness from the Faculty of Science to participate in the study than their counterparts in other faculties. However, the results of this study are in line with a similar survey by Ani, Edem and Ottong (2010), who reported a higher number of respondents (65.22%) from "science-based disciplines" compared with that of "non-science-based disciplines" (34.78%).

CONCLUSION

The research productivity of academic staff showed a low level of research productivity of academic staff in private universities in southwestern Nigeria. This result is entirely unexpected because of the importance of research productivity in the lives of academic staff. Literature review shows that publication output is highly associated with academic staff appointment, tenure, promotion/ career advancement, contribution to knowledge, and personal/institutional visibility. Low research productivity can be overcome if investment in research at private universities is increased and academic staff utilise them in line with the emerging digital trend in universities worldwide.

REFERENCES

Anyaogu, U. & Mabaworku I. (2014) Legal information resources availability and utilisation as determinants of law lecturers' research productivity in Nigerian universities. *Information and Knowledge management*, 4(9)50-58.

Atakan, C., Atılgan, D., Bayram, Ö., & Arslantekin, S. (2008). An evaluation of the second survey on electronic databases usage at Ankara University Digital Library. *The Electronic Library*, 26(2), 249–259. doi:10.1108/02640470810864136

Babalola, G. A. (2014) Influence of Job Motivation, Demographic and Environmental Factors on the Productivity of Librarians in Colleges of Education in Nigeria. *International journal of social relevance and concern*, 2.

Baro, E. E., Benake-ebide, C. E., & Ubogu, J. O. (2011). Awareness and use of online information resources by medical students at Delta State University in Nigeria. *Library Hi Tech News*, 28(10), 11–17. doi:10.1108/07419051111202655

Bartlett, J., Kotrlik, J., Higgins, C., & Williams, H. (2001). Exploring factors associated with research productivity of business faculty at National Association of Business Teacher Education member institutions. Published Report.

Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organisational research: Determining appropriate sample size in survey research. *Information Technology, Learning and Performance Journal*, 19(1), 43–50.

Chiemeke, S., Longe, O. B., Longe, F. A., & Shaib, I. O. (2009) Research output from Nigerian tertiary institutions: an empirical appraisal. *Library Philosophy and Practice*. http://libr.unl.edu/LPP/chiemeke-longe-longe-shaib.htm

Daily Trust. (2015). Babcock University School of Medicine successfully carried out a Heart surgery. Daily Trust.

Egwunyenga, E. J. (2008). Dystrophies and associated crisis in research and academic publications in Nigerian universities. *Anthropologist*, *10*(4), 245–250. doi:10.1080/09720073.2008.11891057

Faborode, M. O. (2015) Building a World Class University: Imperatives, Realities and Strategies. Paper Delivered at the combined convocation lecture marking the 10th Anniversary of the University of Mkar, Benue state, Nigeria.

Foster, K., Heppensta, R., Lazarz, C., & Broug, E. (2008). *Emerald academy 2008 authorship in Africa*. Emerald Insight. http://info.emeraldinsight.com/pdf/report.pdf/.20.3.14

Hadjinicola, C. G., & Soteriou, C. A. (2005). Factors Affecting Research Productivity of Production and Operations Management Groups: An Empirical Study'. *Journal of Applied Mathematics and Decision Sciences*, 2006, 96542.

Isibor, G. (2011) No private universities can charge enough tuition to fund itself. Sunday Punch.

Joyce, E. (2006). Information seekers' perspectives of libraries and librarians. *Advances in Librarianship*, 28, 151–170.

Kamla, R. (2011). Effective and Ineffective Lecturers: University Students' Perspective in Zimbabwe. *Anthropologist*, *13*(4), 265–269. doi:10.1080/09720073.2011.11891207

Leahey, E. (2006). Gender Differences in Productivity: Research Specialization as a Missing Link. *Gender & Society*, 20(6), 754–780. https://www.jstor.org/stable/27640933. doi:10.1177/0891243206293030

Lertputtarak, S. (2008). An Investigation of Factors Related to Research Productivity in a Public University in Thailand: A Case Study. A dissertation submitted in partial fulfilment of the requirements for the Degree of Doctor of Education. School of Education, Faculty of Arts, Education and Human Development, Victoria University. http://wallaby.vu.edu.au/adt-VVUT/uploads/approved/adt-VVUT20080711.120505/public/01front.pdf,

National Universities Commission. (2011). Manual of Accreditation Procedure for Academic Programs in Nigerian Universities. National Universities Commission.

National Universities Commission. (2020). *List of Nigerian universities and years founded*. NUC. http://www. nuc.edu.ng/pages/universities.asp

Ogbogu, C. O. (2009). An analysis of female research productivity in Nigerian universities. *Journal of Higher Education Policy and Management*, 31(1), 17–22. doi:10.1080/13600800802558841

Ogbomo, E. F. (2010). Publication output of librarians in tertiary institutions: A case study of Delta State University, Abraka, Nigeria. Library Philosophy and Practice. University of Idaho. https://www.webpages.uidaho.edu/~mbolin/ogbomo.htm

Okafor, V., & Dike, V. W. (2010). Research Output of Academics in the Science and Engineering Faculties of Federal Universities in Southern Nigeria. *African Journal of Library Archives and Information Science*, 20(1), 41–51.

Okafor, V. N. (2011) Comparative analysis of research output of federal universities in Southern Nigeria. *Library Philosophy and Practice*. http://www.webpages.uidaho.edu/~mbolin/okafor. pdf

Okonedo S. (2015) Research and publication productivity of librarians in public universities in South-West, Nigeria. Library Philosophy and Practice.

Okonedo, S., Popoola, S. O., Emmanuel, S. O., & Bamigboye, O. B. (2015). Correlational Analysis of Demographic Factors, Self-Concept and Research Productivity of Librarians in Public Universities in South-west, Nigeria. *International Journal of Library Science*, 4(3), 43–52. doi:10.5923/j.library.20160403.01

Oloruntoba, A., & Ajayi, M. T. (2006). Gender and research attainment in Nigerian agricultural universities. *Journal of Higher Education in Africa*, 4(2), 83–98. doi:10.57054/jhea.v4i2.1655

Osagie, A. U. (2009). Doubts Remain About Private Universities. In A. U. Osagie (Ed.), *Changes and Choice: The Development of Private Universities in Nigeria* (pp. 19–35). Rawel Fortune Resources.

Peterson, B. L., & Demark-Wahnefried, W. (2004). No difference in response rate to a mailed survey among prostate cancer survivors using conditional versus unconditional incentives. *Cancer Epidemiology, Biomarkers & Prevention*, *13*(2), 277–278. doi:10.1158/1055-9965.EPI-03-0065 PMID:14973100

Popoola, S. O. (2002). Effect of information sources, services and utilization on research output of social scientists in Nigerian universities. *African Journal of Education and Information Management*, 4(1), 1–10.

Popoola, S. O. (2008). The Use of information sources and services and its effect on the research output of social scientists in Nigerian Universities. Library Philosophy and Practice.

Riahinia, N., & Azimi, A. (2008). Women and the web: An evaluation of academic Iranian women's use of the internet in Tarbiat Moalem University. *The Electronic Library*, 26(1), 75–82. doi:10.1108/02640470810851752

Teodorescu, D. (2000). Correlates of faculty publication productivity: A cross-national analysis. *Higher Education*, 39(2), 201–222. doi:10.1023/A:1003901018634

Tower, G., Desai, R., Carson, B., & Cheng, S. (2005). Better understanding of research performance. *Asian Review of Accounting*, *13*(2), 51–67. doi:10.1108/eb060787

Usang, B., Basil, A., & Lucy, U. (2007). Academic staff research productivity: A study of universities in South-South Zone of Nigeria. *Educational Research Review*, 2(5), 103–108. http://www.academicjournals.org/ERR

Varghese, N. V. (2004). Incentives and Institutional Changes in Higher Education. *Higher Education Management and Policy*, *16*(1), 27–40. doi:10.1787/hemp-v16-art4-en

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