academicresearchJournals

Vol. 8(10), pp. 324-332, December 2020 <u>https://doi.org/10.14662/ijalis2020310</u> Copy © right 2020 Author(s) retain the copyright of this article ISSN: 2360-7858 http://www.academicresearchjournals.org/IJALIS/Index.htm

International Journal of Academic Library and Information Science

Full Length Research

Innovativeness and Research Productivity of Academic Staff in Kaduna State University, Nigeria

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Accepted 2 December 2020

Research productivity of academic staff is critical to actualization of the core mandate of the university. It has however been observed that research productivity of academic staff in university is declining. Studies have not given adequate attention to innovative work behaviour that influences research productivity. This study therefore investigated the influence of innovative work behaviour on research productivity of academic staff in Kaduna State University. The study adopted survey research design. The study sample consisted of 398 academic staff in Kaduna State University. Total enumeration was used. Data was collected with validated questionnaire. The response rate was 71.1%. Data were analyzed using descriptive and inferential statistics. The finding revealed that innovative work behaviour significantly influences research productivity of academic staff at Kaduna State University (β = 0.119, t= 1.575, p<0.05). The study concluded that innovative work behaviour significantly influences research productivity members for them to conduct research and write research papers. Also, the university management should put in place a mechanism that will sustain the current tempo of innovative work behaviour of its academic staff.

Keywords: innovative work behaviour, research productivity, academic staff, university

Cite this article as: DAHIRU, L., OPEYEMI, D.S (2020). Innovativeness and Research Productivity of Academic Staff in Kaduna State University, Nigeria. *Inter. J. Acad. Lib. Info. Sci.* 8(10): 324-332

INTRODUCTION

Innovative work behaviour refers to the process of developing new ideas, generating new ideas, applying new ideas or promoting new ideas by employees to increase job performance. Innovative work behaviour is a multi-stage process consisting of different behaviours that can be linked to three distinctive phases of the innovation process (Adrianna, Heidenreich and Spieth, 2014). These three distinctive phases include idea generation, which is developing novel ideas; idea promotion that is obtaining external support; and idea application, meaning producing a model or prototype of the idea (Radaelli, Lettieri, Mura, & Spiller, 2014).

Similarly, Joseph and Emuren (2017) define Innovative work behaviour as employee behaviours aimed at the generation, introduction and application of ideas, processes, products or procedures, new and intended on a positive outcome for the organization. Organizational culture plays a significant role in encouraging innovative work behaviours as it can build commitment among employees of an organization in relation to believing in innovation as organizational value and accepting innovation-related norms prevailing within the organization. However, organizational employees are only encouraged to go beyond their designated responsibilities and get involved in spontaneous and innovative activities if they have strong empathy for the organization.

In addition, innovative work behaviour (IWB) includes exploration of opportunities and the generation of new ideas (creativity-related behaviour) but could include behaviours directed towards implementing change, applying new knowledge or improving processes to enhance personal or business performance (Chatchawa, 2017). However, creativity and innovation are vital for organizational effectiveness as organizational success is often dependent on employees who exceed "standard work behaviours" by being innovative rather than merely fulfilling their formal work requirements as stated in the job description and specification (Christian, Andranik and Isabell, 2018).

Innovative behaviour is considered as a series of activities about idea generation, idea promotion, and idea realization for new technologies, processes, techniques, products or services (Lei, 2019). Putting it all together, innovative work behaviour is opportunity exploration, idea generation, idea promotion and idea application. These four distinctive phases are influenced by management grace and personal incentives, which enhance the research productivity of academic staff in universities.

For this study, Innovative Work Behaviour will be seen as a way in which an academic staff looks for opportunities in terms of a research event i.e. to attend a seminar, to look for suitable but acceptable journal publications, to explore various means of generating ideas concerning current issues that may be necessary to visit in his domain or his area of specialization. It may also be inclusive of mobilizing or mentoring other colleagues towards a particular research endeavour or activity. Again, Innovative Work Behaviour entails putting together all related efforts, actions or doings that may encourage a research set-up.

In the long run, the implementation of innovative work behaviour is finally put in place by the time a research consolidates all the efforts or activities that result in coordinating, organizing, and presentation of research effort. Innovative work behaviour and knowledge sharing practice are essential in a fast-changing global environment where development in research is based on a worldwide collaborative, cumulative, sustained effort and the self-corrective cycle of publishing, accessing and using research output to ensure progress in generating further findings, applications and publications. It is assumed that innovative work behaviour can enhance research productivity of academic staff.

Research Productivity is a combination of two terms: Research and Productivity. Research means very careful observation and vigilant study or investigation of phenomena, particularly to search and find out new particulars, information and facts. Research can provide an important background for academics to become successful by increasing the number of citations, increasing the number of published papers, participation in international and local academic events, increasing number of issued patents, raising your own h-index, creating accounts in many reputable academic platforms like ORCID. Academia Productivity, on the other hand, means production or output, produced in duration of time (Zafar and Azhar, 2011).

Research productivity is defined as actual amount of researches conducted by academics in universities and related contents within a particular period. Research productivity of academics in Nigeria rests largely on the quality and often the quantity of research in published textbooks, chapters in books, journals articles, conference proceedings, monographs, book reviews, bibliographies, abstracts and indexes published thesis or dissertation, Technical and scientific reports. Research Productivity is often used synonymously with publication output, publication productivity or research output. This is expressed by research conducted by academics in different disciplines over a time period.

These indices include among others: publication in peer-reviewed journals, books, chapters in books, conference proceedings, monographs, book reviews and many others. Again, publication output refers to production of papers in professional journals, books and articles or presentation of research papers in a conference (Chepkorir, 2018).

Through research, lecturers improve expertise and effective analytical study and communication skills that are generally desired and extremely beneficial. Knowledge generated by research is the basis for sustainable development, which requires that knowledge be positioned at the service of development, be converted into applications, and be shared to ensure widespread benefits (Kearney, 2009). However, in every country, research plays an important role in social, political and economic progress of the society, essential for forming foundations of governmental policies.

Research has a symbolic impact on universities, as a university's research and granting record is seen and used as a measure of its excellence. Some university rankings today list institutions based on the number of publications as well as research grants attracted (Chepkorir, 2018). In the long run, the main aim of conducting research is production of new knowledge or deepening and understanding of an issue or a topic. It can be congregated from the above-mentioned that research productivity of academic staff in any university determines the growth and development of such a university. It is assumed that academics that share their knowledge with colleagues are likely to be more productive in research.

Thus, this study seeks to ascertain, the influence of

innovative work behaviour on research productivity of academic staff in Kaduna State University, Kaduna, Nigeria.

STATEMENT OF THE PROBLEM

There are three main duties of academic staff in universities, which are: teaching, research and community development. In all these, research is probably the most important because through research, academics develop critical thinking, enhancement of quality teaching; earning of promotion, recognition and visibility both locally and internationally. In the light of this, academic staff in universities is expected to be productive in research. Literature has established that the quality and quantity of research output from Nigerian universities are generally low as to make a huge impact on national development (Yusuf, 2012).

Similarly, Okagbue, Opanuga and Oguntunde (2018) reported that research outputs of universities of technology in Nigeria are low. This trend may be observable in Kaduna State University where some academic staff remained in one position without being promoted. Could it be as a result of their low level of research productivity?

However, this researcher is of the view that innovative work behaviour of academic staff in universities may improve their research productivity through exploring opportunities, generating ideas, championing and application of new ideas in research activities, hence, this research set out to investigate the influence of innovative work behaviour on research productivity of Academic staff at Kaduna State University, Nigeria.

OBJECTIVE OF THE STUDY

The general objective of this study was to determine the influence of knowledge sharing practice on research productivity of academic staff in Kaduna State University. The specific objectives are to:

- 1. Find out the level of innovative work behaviour of academic staff in Kaduna State University.
- 2. Access the level of research productivity of academic staff at Kaduna State University.
- Determine the influence of innovative work behaviour on Research Productivity of academic staff at Kaduna State University.

RESEARCH QUESTIONS

In line with objectives of the study, the following questions were answered in this study.

- 1. What is the level of innovative work behaviour of academic staff in Kaduna State University?
- 2. What is the level of research productivity of academic staff at Kaduna State University?

Hypothesis

HO: innovative work behaviour has no significant influence on research productivity of academic staff at Kaduna State University

Innovative Work Behaviour and Research Productivity of Academic Staff

Studies have been conducted across the world on innovative work behaviour of different organisations including research institutions, some of which will be reviewed.

In Australia, Suserio, Standing, Gengatharen and Ngugen (2017)examined the roles of task characteristics, organizational social support, and individual productivity on innovative work behaviour in the public sector. The study analyzed empirical data from 154 employees from government agencies in Australia. study revealed that task characteristics, The organizational social support and proactive personality have positive impact on innovative work behaviour. The proactive personality is also found to be a moderator in relationship between task characteristics and innovative work behaviour.

The study finally suggested that there is need to build human resource practices to better identify proactive and innovative work applicants in the recruitment and selection exercise. Shyhnan, Letty and Angela, (2018) argued that there is a link between innovative behaviour and knowledge output such as patents and trademarks, journal publication and book publishing. This is stronger than that with creative outputs, including outputs from the creative industries (e.g., Visual Art, Cultural Performance, Entertainment, Films, and Broadcasting).

In Pakistan, Shahab and Rabia (2018) investigated the role of Ethical work context along with internal Social capitalin creation of Innovative work behavior among teachers in universities across Pakistan. Data from seven hundred and twenty four (724) faculty members from various public and private universities were analyzed in relation to Ethical work context, Internal Social capital and Innovative work Behavior. It was found that Ethical work context has a direct impact on Innovative work behavior. The study also revealed that Social capital played significant role towards creation of innovative work behavior and work as mediator between Ethical work context and Innovative work behavior.

In Malaysia, Leonga and Raslib (2013) studied The

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Relationship between innovative work behaviour and work role performance: An empirical study. The study examined how employees use innovative work behaviour to achieve performance. The sample selected for this study comprised 300 employees in an integrated automotive company based in Malaysia that was involved in designing and manufacturing cars for sale. The study revealed support for a one-factor innovative work behavior and a two-factor work role performance.

The results revealed that there was lack of differences in innovative work behaviour and work role performance based on gender and education. However, the result indicated that employees who were employed in a crossfunctional capacity and deal with market or customerrelated environment, tend to demonstrate high inclination of work role performance compared to divisions strictly related to research and development.

In China, a study by Xu and Hussain (2018) focused on Understanding Employee Innovative Behavior and Thriving at Work: A Chinese Perspective. The data were collected at three points in time from 402 participants occupying a variety of positions in Chinese organizations. Structural equation modeling and multi-level regression analysis results demonstrated that thriving of employees was positively related to organizational support of innovation, which in turn was positively related to innovative behaviour.

Therefore, moderated mediation findings demonstrated that employee external contacts strengthened the relationship between organizational support of the innovation and innovative behaviour, and enhanced the positive effects of thriving. Seeling (2015) found that Innovative Work Behaviour is important in research performance not only at the organizational level but as well onthe individual level.

In Nigeria, Ahmad (2018) in his research investigated Moderating Effects of Cyber-loafing Activity on Innovative Work Behaviour and Lecturers Job Performance; the study proposed and tested a model that linked employees' innovative work behaviour with three dimensions of lecturer's performance i.e. teaching performance, research performance and community service performance. The findings of the study lend support to the role of employees' innovative work behaviour in fostering lecturers' performance at work. The study also indicated that innovative work behaviour in schools assist faculties in enhancing their strength in teaching and research. Similarly, Akhigbe and Bibiebi (2017) found that innovative work behaviour improved an existing idea, product and service, designs, work practices and procedures.

METHODOLOGY

The study adopted survey research design, total enumeration was used, data was collected with validated questionnaire, and Cronbach's alpha reliability coefficients for the constructs range from 0.60 to 0.90data were analyzed using descriptive and inferential statistics.

RESULT

This section presents the data analysis of the study, interpretation and discussion of findings. This is divided into the following: Demographic information analysis, the extent of knowledge sharing practices, the level of research productivity, hypothesis testing and discussion of findings. The sections correspond with the research questions and hypothesis. Descriptive quantitative analysis approaches have been used in data analysis. Out of 398 questionnaires administered, 283 were retrieved and analyzed. This means the study had 71.1% response rate.

Table 1. Distribution of res	spondents according to t	heir Demographic information

Characteristics	Categories	Percentage
Gender	Male	67.5
	Female	32.5
	Total	100.0
Marital Status	Single	20.5
	Married	73.1
	Divorced	4.2
	Widowed	2.1
	Total	100.0

Table 1. Continues

Age	below 30	9.5
	31-40	43.1
	41-50	41.7
	51-60	5.7
	Total	100.0
Educational Qualification	BSc/BA	12.4
	MSc/MA	46.6
	PhD	38.9
	Post-doctoral	2.1
	Total	100.0
Designation	Graduate Assistant	13.1
	Assistant Lecturer	15.5
	Lecturer II	39.2
	Lecturer I	14.8
	Senior Lecturer	14.1
	Associate Professor/Reader	2.5
	Professor	.7
	Total	100.0
Length of Service	below 6 years	24.7
	6-10 years	47.7
	11-15 years	15.2
	16-20 years	8.5
	21-25 years	2.8
	26-30 years	1.1
October December 2 Field Ottomark	Total	100.0

Sources: Researchers' Field Survey, 2020

Table 1. presents the demographic information of the selected respondents from the academic staff of Kaduna State University, Kaduna Nigeria.

The findings in Table 1.1 showed that 67.5% of the academic staff of Kaduna State University are male while 32.5% are female. This shows that large proportions of the respondents (academic staff) fin Kaduna State University are male. Also, 73.1% of academic staff in Kaduna State University are married while 2.1% widows. This indicate that majority of the academic staff of Kaduna State University are married.

Table 1.2 also presents the age distribution of the selected academic staff of Kaduna State University. The result indicates that 43.1% and 41.7% of academic staff in Kaduna State University are still in their active lecturing years of 31-60 years of age. Lastly, Table 4.2 also reveals that the majority of educational qualification of academic staff in Kaduna State University are MSc/MA (46.6%) closely followed by PhD degree holders (38.9%).

Table 2. Level of Innovative Work Behaviour among Academic Staff in Kaduna State University

S/ N	Questions	Always %	Often %	Sometime%	Rarely (%)	Never	Mean	Std. Deviation
	Opportunity exploration							
1	I look how to improve my work	(54) 19.1%	(100) 35.3%	(90) 31.8%	(38) 13.4%	(1) 0.4%	3.5936	.95700
2	I search out new working methods, techniques or instruments	(35) 12.4%	(114) 40.3%	(89) 31.4%	(43) 15.2%	(2) 0.7%	3.4841	.91999
3	I pay attention to issues that are not part of my daily work	(34) 12.0%	(54) 19.1%	(83) 29.3%	(74) 26.1%	(38) 13.4%	2.9011	1.21052
							3.3262	

Table 2. Continues

Table			1			1		1
	Idea generation							
4	I find new approaches to execute tasks	(31) 11.0%	(144) 50.9%	(71) 25.1%	(37) 13.1%	(0) 0%	3.5972	.85069
5	when something does not function well at work, i try to find new solution	(46) 16.3%	(91) 32.2%	(11) 641.0%	(30) 10.6%	(0) 0%	3.5406	.88783
6	I generate original solutions for problems	(27) 9.5%	(100) 35.3%	(100) 35.3%	(52) 18.4%	(4) 1.4%	3.3322	.93167
							3.49	
	Promotion of idea							
7	I attempt to convince people to support an innovative idea	(36) 12.7%	(108) 38.2%	(105) 37.1%	(34) 12.0%	(0) 0%	3.5159	.86434
8	when i have new ideas i try to persuade my colleagues of it	(20) 7.1%	(122) 43.1%	(119) 42.0%	(20) 7.1%	(2) 0.7%	3.4876	.75959
9	when i have new ideas, i try to involve people who are able to collaborate on it	(36) 12.7%	(91) 32.2%	(114) 40.3%	(42) 14.8%	(0) 0%	3.4276	.89376
							3.4770	
	Application of idea							
10	I put effort in the development of new things	(44) 15.5%	(114) 40.3%	(107) 37.8%	(18) 6.4%	(0) 0%	3.6502	.81729
11	I systematically introduce innovative ideas into work practices	(38) 13.4%	(108) 38.2%	(111) 39.2%	(24) 8.5%	(2) 0.7%	3.5512	.85471
12	I contribute to the implementation of new ideas	(27) 9.5%	(103) 36.4%	(95) 33.6%	(53) 18.7%	(5) 1.8%	3.3322	.94677
							3.5112	
	Grand Total						3.4511	

Sources: Researchers' Field Survey, 2020

Decision rule; ≤ 1.49 = very low, 1.5 – 2.49 = low 2.5 – 3.49 = high, 3.5-4.49 = very high, ≥

Table 2. depicts the level of innovative work behaviour among academic staff in Kaduna State University, with a grand mean of 3.4511. This implies that there was high level of innovative work behaviour among academic staff in Kaduna State University.

While application of idea (mean 3.52) was rated very high among academic staff in Kaduna State University, idea generation (mean 3.49), promotion of ideas (mean3.47),and exploration of opportunity (mean 3.32) on the other hand, was rated high among academic staff in Kaduna State University.

Table 3. Level of Research Productivity	of Academic Staff-Kaduna State University
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Items	Above 6	4-6	1-3	NONE	Mean	Standard Deviation
Journal Article	(63) 22.3%	(93) 32.9%	(82) 29.0%	(45) 15.9%	2.6148	1.00180
Conference proceedings	(64) 22.6%	(53) 18.7%	(100) 35.3%	(66) 23.3%	2.4064	1.07892
Chapters in Book	(50) 17.7%	(54) 19.1%	(89) 31.4%	(90) 31.8%	2.2261	1.08099
Dissertation/Thesis	(15) 5.3%	(42) 14.8%	(211) 74.6%	(15) 5.3%	2.2014	.61170

Table 3. Continues

Technical Report	(28) 9.9%	(49) 17.3%	(82) 29.0%	(124) 43.8%	1.9329	1.00305
Book(s)	(28) 9.9%	(44)	(90) 31.8%	(121) 42.8%	1.9258	.98830
Edited Book(s)	(27) 9.5%	(41) 14.5%	(88) 31.1%	(127) 44.9%	1.8869	.98280
Book Review	(23) 8.1%	(35) 12.4%	(92) 32.5%	(133) 47.0%	1.8163	.94239
Patent	(36) 12.7%	(17) 6.0%	(37) 13.1%	(193) 68.2%	1.6325	1.05820
Grand Mean					2.0715	

Sources: Researchers' Field Survey, 2020

Decision rule; $\leq 1.49 = \text{very low}, 1.5 - 2.49 = \text{low}, 2.5 - 3.49 = \text{high} \geq 3.5 = \text{very high}$

Table 3. gives details of the level of research productivity of academic staff at Kaduna State University. With the grand mean of 2.07, thus implies that there was low level of research productivity among academic staff in Kaduna State University from 2017 to 2019. Journal articles (mean 2.61) was rated high among academic staff closely followed by conference proceedings (mean 2.40). Patent (mean 1.63) on the other hand, was rated low among academic staff in Kaduna State Iniversity.

Model	Unstandardi	zed Coefficients	Standardized Coefficients	t	Sig.		
	В	Std. Error	Beta				
(Constant)	11.255	2.198		5.120***	.000		
Opportunity exploration	.476	.466	.065	1.020	.309		
Idea generation	.162	.461	.023	.351	.726		
Promotion idea	1.146	.519	.149	2.209**	.028		
Application of idea	.411	.452	.057	.910	.363		
Source of Variation Sum of Sq	uares Df	Mean Square	F-Ratio)	Sig.		
Regression 628.84	4 4	157.211	3.495		.008 ^b		
Residual 12504.9	923 278	44.982					
Total 13133.7	767 282						
$R = 0.214;$ Multiple $R^2 = 0.040$	= 0.039	Standard error es	stimate =	6.72194			
a. Dependent Variable: research productivity							
b. Predictors: (Constant), opportunity exploration, Idea generation, Promotion idea, Application idea							

b. Predictors: (Constant), opportunity exploration, Idea generation, Promotion idea, Application idea Sources: Researchers' Field Survey, 2020

Note: *, **, & *** implies 10%, 5% & 1% significance level respectively.

Table 4. presents the result on the influence of Innovative Work Behaviour on Research Productivity of academic staff at Kaduna State University. The Fstatistics value of 3.495 with the corresponding probability of 0.008 indicated that the model is statistically fitted and significant. This implies that innovative work behaviour significantly influence research productivity, hence the null hypothesis of Innovative work behavior has no significant influence on research productivity of academic staff at Kaduna State University can be rejected. Therefore, the study concluded that Innovative work behavior has statistically significant influence on research productivity of academic staff at Kaduna State University.

DISCUSSION

The study sought data to serve as empirical evidence on influence of Innovative work behaviour and knowledge sharing practice on research productivity of academic staff in Kaduna State University. The finding of the first hypothesis reveals that the study shows that opportunity exploration has positive but insignificant effect on research productivity of academic staff at Kaduna State University. Also, Idea generation has positive but not significant effect on research productivity on academic staff of Kaduna State University. In addition, Promotion of idea has positive effect and significantly determines the research productivity of academic staff of Kaduna State University. Application of idea posits a positive effect on research productivity of academic staff of Kaduna State University.

Therefore, the study concluded that Innovative work behavior has statistically significant influence on research productivity of academic staff at Kaduna State University. The study was in tandem with the work of Islam, Ismail and Cheema (2017) who investigated on employee's innovative work behaviour and innovative output. The study reveals a positive significant effect on training and development, innovative work behaviour, organizational culture and management support on innovative output.

Ahmad (2018) in his research investigated Moderating Effects of Cyber-loafing Activity on Innovative Work Behaviour and Lecturers Job Performance. The study proposed and tested a model that links employees innovative work behaviour with three dimensions of lecturer's performance i.e. teaching performance, research performance and community service performance. The findings of the study lent support to the role of employee's innovative work behaviour in fostering lecturers' performance at work.

The study also indicated that innovative work behaviour in schools assist faculties in enhancing their strengths in teaching and research. Similarly, Akhigbe and Bibiebi (2017) found that innovative work behaviour improved an existing idea, product and services, designs, work practices and procedures.

CONCLUSION AND RECOMMENDATIONS

In view of the findings on the research productivity of academic staff in Kaduna State University, we concluded that they are affected by several factors. This study empirically proved the factors such as opportunity exploration, idea generation, promotion of idea and application of idea. Innovative work behaviour and research productivity while all indicators, others such as opportunity exploration, idea generation, promotion of idea and application of idea have positive effect on research productivity. Only promotion of idea significantly determined research productivity. Based on the findings of the study, the following recommendations are made:

i Kaduna State University management should make adequate budgetary provision for research and development for academic staff in Kaduna state university and provide more training programmes for the new faculty members to train them to conduct research and write research papers.

ii Kaduna State University management should put in place a mechanism that will sustain the current tempo of Innovative work behaviour of its academic staff.

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