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Effect of Research Productivity on Lecturers' Economic Advancement in Colleges of Education in North-Central Geo-Political Zone of Nigeria

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ABSTRACT: The most significant factor used by global college and university ranking systems to determine a lecturer's rating is research. Numerous steps are being taken by universities all over the world to encourage a research culture among their academic personnel. But this is challenged by some barriers making it impossible for the goals of research productivity to be achieved. The purpose of the study was to examine if there is any significant effect of research productivity on lecturers' economic advancement in colleges of education in North-centra geographical zone. Simple cluster sampling technique alongside random sampling technique was used to select 140 lecturers from a target population of 1420 lecturers in North-central geographical zone of Nigeria. Self-constructed questionnaire was used as relevant tools to gather data from respondents. Descriptive statistics, frequency, and mean were used in analyzing data and reporting the study findings. Pearson product moment analysis and linear regression analysis were used to (i) establish the relationship between research productivity and lecturers' economic advancement and (ii) effect of research productivity on lecturers' economic advancement. The findings reveal that research productivity plays a pivotal role in determining the economic advancement and well-being of lectures. Higher research productivity translates into research grants, promotion, salary increment, and other accolades that contribute to a lecturer's economic status. The results indicated that factors such as salary, promotion, motivation, funds and grants influence research productivity but gender is no. It was discovered that the major challenge of research productivity was inadequate research funding. It was therefore recommended that the way forward is to improve funding structures, provide more flexible working, lectures to be train and equipped with research skills.

KEY WORDS: Research productivity, lecturers, economic advancement, challenges, factors

I. INTRODUCTION

Research productivity encompasses the ability of a researcher or research team to generate research outputs that are accepted for publication in a recognized peer-reviewed journal. It is the measure of a research team's performance in terms of overall output, impact, and quality. It is an important indicator of a research team's success in terms of research achievements [1]. Despite the importance of research productivity, there are several challenges that researchers and research teams must face to be successful. Research involves scientific studies carried out to uncover new information, and its operations play a crucial role in advancing any country's growth. Research's main purpose is to investigate solutions to topics that attempt to address society's problems [2]. Research and the development of human potential are related [3]. In the pursuit of knowledge advancement, a researcher's productivity is assessed based on research findings that may be used by other academics, stakeholders, policymakers, businesses, and the general public [4]. According to [5], research productivity in academia is measured by the number of articles published in "peer-reviewed" journals, referred books, book chapters, h-index, awarded research grants, conference proceedings, and patents of academics. According to several studies [6], [7], research output boosts an academic staff member's social standing and is linked to appointments, promotions, and high wages. When compared to academics whose reputation is listed among those of low status, researchers with high reputation status are more likely to publish in journals with high impact factors.

Most African nations have less funding for research [8]. Many African countries spend less than 1% of their GDP on research and development, according to an assessment of R&D as a percentage of GDP conducted globally [9]. According to [9], a bigger proportion of research projects conducted by academic employees in Nigeria are self-funded from their meager salaries. Although the Tertiary Education Trust Fund (TETFund) in

Nigeria is the largest funding source for tertiary institutions (universities, polytechnics, and colleges of education), it does not fund research at research institutes, which have a sole focus on conducting research. The main barriers to obtaining research funds in Nigeria include policymaking in the selection of research projects, a lack of advertising for grant applications, and ignorance of funding organisations. One of the responsibilities of the education agency is to encourage academics to participate in cutting-edge research in the nation, which is why the goal of setting up an Institution Based Research Fund (IBR) was to promote academic research in public higher education institutions in Nigeria [10]. The Tertiary Education Trust Fund was instrumental in enhancing the socio-economic empowerment of academicians in tertiary institutions of learning in Nigeria. In Nigeria, several government research institutes and universities conduct research, but these organisations frequently face significant obstacles, most notably severe underfunding and a lack of accordance with national research priorities [11], which have a significant impact on the accomplishment of their mandates and the development of the country. A significant barrier to Africa's growth has been identified as the lack of core financing for research-focused institutes [12]. However, the research industry struggles the most in many African nations, including Nigeria [13]. Although there are many research institutes, universities, polytechnics, colleges of education, and mono-technics in Nigeria that are controlled by the federal, state, and private sectors (Supplementary Material S1), they are struggling with several issues, including brain drain. The purpose of this study is to determine the impact of research productivity on the financial progress of lecturers in light of the challenges, while also acknowledging this constraint and setting out on this research project. In this paper, the problems with research productivity will be discussed, along with recommendations for solutions.

II. LITERATURE REVIEW

Concept of Research Productivity : The vast range of research productivity has been classified using a variety of criteria because there is no one definition [14]. But RP is often defined by the number of articles published in academic journals with peer reviews and scholarly books [14]. The final outcome of a research process is "research productivity." It may be quantified in a range of published outputs, including patents, books and book chapters, theses, and peer-reviewed journal papers. The number of grant proposals filed or the research funding obtained are other ways to quantify it. Professional development opportunities such as conference presentations and research seminars are another [15]. Publishing outputs (publication) are among the categories that are acknowledged as being regularly used as indicators to assess the research productivity of academics and researchers throughout the world. It plays an important role in spreading fresh information across the world, and publishing is the primary means through which this happens.

Concept of Economic Advancement : Economic advancement refers to the process of improving the economic well being of a society or nation. It involves the process of increasing the capacity of an economy to produce goods and services, creating employment opportunities, reducing poverty, and raising the standard of living of people. It is also encompassing improvements in health, education, and other dimensions of well-being. It is used to measure human development that combines indicators of income, education. And health [16].

Elements of Economic Advancement of a lecturer

1. Increased salary
2. Acquisition of new skills, knowledge and abilities
3. Innovation and Digitalization
4. Business savvy
5. Grant Funding
6. Consulting and Speaking Engagements
7. Commercialize intellectual Property
8. Receive Promotion
9. Awards
10. Job tenure and security
11. Human Capital Development

    It's the acquisition of new skills, knowledge and abilities [17]

Factors that Influence Research Productivity : Numerous investigations of the factors that influence researcher productivity have been conducted. A growing number of multivariate and complicated statistical studies have been conducted as a result of potential factors being proposed and the complexity of variation explained by any one component. According to the critical review of the literature, there are two categories of factors that impact research productivity: individual factors and institutional factors. A few of them are:

Educational Background : Higher-educated academics are more dedicated to their research and more confident in their ability to solve research challenges than less-educated academics. Ph.D. holders typically outperform their peers with master's degrees in terms of productivity. Academic rank and tenure have been positively correlated in studies, with higher-ranking professorial faculty members tending to have more publications before receiving official tenure. According to [18], when academics are still in their early stages and working in untenured posts, research production increases. Academics' research output significantly rises to a peak point in early career and then declines gradually. In Korea, many junior academics published more papers in foreign journals than senior academics.

Family-related variables and gender : [19] explored academic research production in connection with gender and family-related variables such as marital status, the number of children, and aging parents. The findings showed that family-related issues had little to no impact on the research productivity of those academics and that gender had little bearing on research output. Also, [20] reported no gender influence on research productivity.

Research motivation and interest : Academics are thought to do more research when they are motivated by their research interests. According to [21], academics with a research interest produce three times as much research as those with a teaching-focused interest. [21] emphasised that in the same discipline and under the same working conditions, the research productivity of the most intrinsically motivated academics is often twice as high as that of the least intrinsically motivated academics.

Time allocation for research : According to [22], academics should regularly devote time to research rooms, offices, and labs. More crucially, their tasks should be closely related to a specific research product, such as a manuscript for a journal article or a book chapter. Research has shown that full professors are more likely to have access to publishing-friendly research resources and to be active in networks that are known to support publications. Additionally, they have a higher likelihood of receiving external funds, which are among the finest indicators of production [23]. According to a study, academics who devote 50% or more of their time to research are substantially more productive than those who devote less than this amount of time to research [15].

Institutional determinants : The scientific literature on the factors influencing a researcher's performance [24] has shown how this is influenced by a variety of organisational and personal factors. Institutional characteristics (institution's size and kind, environment in departments, financing, number of labs, etc.)

Lecturing Workload : Universities in industrialised nations, including Australia, are depending on a higher number of casual or sessional teaching personnel when class sizes continue to rise while the number of permanent academics stays the same. In five state institutions in the Philippines, [25] performed a study on the productivity of the research personnel.

Departmental heads and their leadership styles : According to [26], academics' research output was shown to be highly impacted by departmental heads' research knowledge, leadership style, and professional expertise.

Salary raises and promotions : Promotion and tenure provided assistant professors with incentives to do research, while associate professors favoured income increases and promotions. According to [25], academic staff salaries in universities have a significant impact on the calibre and volume of their research output. Academic personnel in universities may do better in their research if their salaries are correlated with their number of publications.

The availability of research funding and the surroundings for doing research : Researchers [27] looked at the causes of academics' poor research output. The results revealed a favourable correlation between research productivity and the availability of research funding and a conducive research environment. [22] also discovered that access to research funding is perceived as a significant factor in research performance, particularly when government resources are distributed to institutions based on research performance.

University curriculum : [28] identified the weaknesses in the curriculum as a major institutional factor that can affect the research output. These weaknesses are due to lack of courses which focus on developing core research competencies, lack of intra- and external funding for dissertation research, and limited access to facilities.

Research Environment and Research Culture : The research productivity in Malaysian universities was found to be influenced by university factors (environmental factors) by [29]. According to [30], university variables, behavioural factors, and personal factors make up the majority of what influences university publishing and citation rates. The institutional climate, research policy, and leadership contributed to the academics at IIT being more productive in their research than those at IIM.

Challenges Militating Against the Productivity and Publication of Research : In Nigeria, several government research institutes and universities carry out research, but they frequently face significant obstacles, most notably severe underfunding and a lack of accord with national research priorities (Federal Ministry of Health Nigeria, 2018), which have a significant impact on the accomplishment of their mandates and the development of the country. A significant barrier to Africa's growth has been identified as the lack of core financing for research-focused institutes [12]. [13] note that the research industry in many African nations, including Nigeria, suffers from the most challenging obstacles. Nigeria has a large number of research institutes, universities, polytechnics, colleges of education, and mono-technics that are controlled by the federal, state, and private sectors, but they are up against many obstacles including brain drain.

The biggest challenge preventing Nigerian researchers from developing and surviving to achieve the Sustainable Development Goals (SDGs) are family issues, financial difficulties, inadequate research skills, an absence of employer motivation, brain drain, not enough training, an excessive number of administrative tasks, inadequate mentoring, an excessive amount of work (which means little time for research), insufficient research grants, poor facilities, misconduct in research, and shortages of research [31].

Research Productivity and Economic Advancement of Lecturers : Research productivity is an important aspect of the academic career of lecturers. It refers to the quantity and quality of research output including publications, grants, and presentations. Research productivity is a crucial determinant of academic promotion, tenure, and recognition. It is also a key driver of economic advancement for lecturers, as research activities generate income through grants, contracts, and patents, and contribute to the development of new knowledge and technologies that can be commercialized or transferred to industry. This paper aims to review the literature on the relationship between research productivity and the economic advancement of lecturers.The link between research productivity and economic advancement among lecturers has been a topic of interest in the academic literature. Research productivity refers to the quantity and quality of research output produced by an individual researcher. It can be measured using various indicators such as the number of publications, journal impact factors, citations, h-index, and grants received, among others [32]. On the other hand, economic advancement implies an increase in income or overall financial well-being. This paper reviews selected literature on how research productivity affects the economic advancement of academics.

Impact on Promotion and Tenure : Academic rank promotion is primarily based on research productivity for most universities worldwide [33]. Researchers who have published more often or in high-impact journals tend to secure tenure or senior lecturer promotion faster than those who fail to meet these criteria. Promotion to a higher rank often translates into increased salaries or other benefits that improve one's financial status.

Research Funding Opportunities : Research output is often essential in obtaining external grants and funding opportunities that improve the lecturers' financial position (The Royal Society, n.d.). Lecturers with a successful track record of publishing in reputable journals can attract grants from government agencies or private institutions for their current and future projects. For example, academics who publish frequently are more likely to receive grant support for their research than those who do not [34].

Consultancy Opportunities : Highly productive researchers are more likely to be called upon as consultants by companies or organizations requiring expert advice. Such opportunities are not only financially rewarding but also provide exposure to new ideas that may lead to further publications or collaborations with other researchers [35].

Networking and Collaboration Opportunities: Researchers who have demonstrated a high level of productivity are likely to attract attention from other researchers in their field or those with similar research interests. This exposure can lead to future collaborations, co-authorship of papers, and even opportunities for sabbatical leave in prestigious institutions. Collaboration and networking can thus enhance research productivity and the financial well-being of an academic [34].There has been a significant amount of scholarly work on the effect of lecturers' work on their economic development. Here are a few examples of relevant studies:'The Economic Impact of University Research and Development' by [36] investigated the relationship between university research and economic development. The authors found that university research has a positive impact on lecturers' economic growth and this effect is even bigger when the research is focused on high-tech industries.'The Economic Value of College Majors' by [34] explores the relationship between college majors and economic outcomes. The authors find that majors in science, technology, engineering, and mathematics (STEM) fields are associated with higher earnings and that this effect is particularly strong for individuals who go on to work in research and development.

'The Relationship Between Research Productivity and Teaching Effectiveness: Complementary, Antagonistic, or Independent Constructs?' [37] examine the relationship between research productivity and teaching effectiveness among faculty members. The authors find that there is a positive correlation between research productivity and teaching effectiveness, promotion, and job satisfaction but that this relationship is not necessarily causal.'The Relationship between Research and Salary in Higher Education' by [10] examines the relationship between research productivity and salary among faculty members. The authors find that research productivity is positively associated with salary, particularly for faculty members in research-intensive universities.

'Research Productivity and Academic Promotion: A Study of Australian Law Schools by [38] investigates the relationship between research productivity and academic promotion among law faculty members in Australia'. The Study finds that research positivity is positively associated with promotion to higher academic ranks and that this relationship is particularly strong for publication in prestigious journals.'Research Productivity ad Salary among Business Faculty: An Empirical Analysis' by [39] examines the relationship between research productivity and salary among business faculty members in the United States. The authors find that research productivity is positively associated with salary, particularly for faculty members at research-intensive universities.

'The Effect of Research Productivity on Academic Salaries: Evidence from Canadian Universities' by [40] examines the impact of research productivity on academic salaries among faculty members at Canadian universities. The authors find that research productivity, as measured by publications in top-tier journals and research grants, has a positive effect on salary, particularly for faculty members in science and engineering disciplines.'The Relationship between Research Performance and Promotion: A Case Study of Turkish Academics' by [41] investigates the relationship between research performance and promotion among faculty members in Turkey. The study finds that research performance, as measured by publications in top-tier journals, has a positive and significant effect on promotion to higher academic ranks.Overall, these studies suggest that research productivity and publication are important factors in determining lecturers' economic advancement, particularly in terms of salary and promotion. However, the relationship between research productivity and economic outcomes may vary across disciplines, universities, colleges, and countries. But this research was carried out in Europe and the United States of America which variables may not be peculiar to Nigeria. Also, all the research was carried out in universities while the current has its target population from colleges of education. After the critical review, it was found that there is an adequate number of research being conducted on factors affecting research productivity in various countries but there is no specific research to explain the association of both individual factors and Institutional factors and faculty research productivity in Nigeria.

Statement of the Problem : It has been noted that some lecturers in a college of education, particularly in the North-Central geopolitical zone of Nigeria, are typically not promoted over time. Some of the justifications centred on the lecturers' inability to publish because they did not participate in research in their chosen subject or vocation. This indicates that research and published papers are essential for the advancement of the academic community and are also a factor in determining the financial situation of promoted lecturers. Therefore, the purpose of this study is to determine if the lecturers' research abilities are related to their economic advancement.The connection between research productivity and lecturers' socioeconomic advancement is the problem that this review of literature attempts to solve. While there is evidence that research productivity can result in promotions and tenure, opportunities for research funding, consultations, and networking and collaboration, there are also challenges that must be addressed, such as preserving a healthy work-life balance and the lack of resources necessary for research productivity's impact on economic advancement while also examining the difficulties that may limit those benefits.

Research Objectives

The broad objective of the present study is to provide data on research productivity of lecturers in colleges of education in North-central of Nigeria. Besides, the study was guided by the following specific objectives:

1. To examine the effects of research productivity on lecturers' economic advancement in colleges of education;
2. To determine the relationship between research productivity and lecturers' economic advancement in colleges of education;
3. To find out the factors that influence research productivity among lecturers
4. To ascertain the challenges of that militate against research productivity and publications.

Research Questions

The following research questions were set up to direct the study:

1. What is the effect of research productivity on lecturers' economic advancement in colleges of education?
2. What is the relationship between research productivity and lecturers' economic advancement in Colleges of Education?
3. What are the factors that influence research productivity among lecturers?
4. What are the challenges of research productivity and publications in colleges of education?

Research Hypothesis

The researcher intended to use the study findings from this study to verify the following hypotheses below:

$H0_1$. There is no relationship between research productivity and lecturers' economic advancement in colleges of education.

$H0_2$. There is significant relationship between research productivity and lecturers' economic advancement in colleges of education.

III. METHODS

Research Design : The researcher applied descriptive research approach since the latter involves collection of data to determine whether, and to what degree, how one variable affect another variable; namely, research productivity on lecturers' economic advancement.

Population for this Research : The population for this study will comprise all the public colleges of education lecturers in the north-central geo-political zone of Nigeria. The targeted population will be lecturers drawn from the four randomly selected colleges of education in the north-central geo-political zone of Nigeria. The proposed four (4) colleges of education to be sample are, FCT College of Education Zuba-Abuja, Federal College of Education, Okene, Kogi state, College of Education Minna-Niger State, and College of Education Akwanga - Nasarawa state.

Sample and Sampling Method :A simple cluster random sampling technique was used to select 10% of the 2680 target population from four colleges of education (FCT College of Education Zuba-Abuja, Federal College of Education, Okene, Kogi state, College of Education Minna-Niger State, and College of Education Akwanga - Nasarawa state.) in Northcentral geo-political zone of Nigeria. Simple cluster random sampling was chosen so that every member of the population will have an equal chance of being selected and each college of education will have proportional representation. Hence, 1422 lecturers were chosen and made up the sample size of the study. The 140 sample size was arrived at by writing all the names of each lecturer on a piece of paper, folded and placed in two separate bowls, and the tenth person was selected till the required sample was ascertain. And this was done in each college of education.

Instrument for Data Collection :A questionnaire was the instrument used to collect data. Because questionnaires are simple to deliver, simple to complete, and quick to grade, it takes very little time for both researchers and respondents to complete one. A self-completion questionnaire titled, RPLEA was chosen as the most suitable data collection instrument for the study. As a result, a 18-item, three-section, self-designed questionnaire (A, B, and C) was designed. Demographic information, such as the respondents' gender, was gathered in Section A. The questionnaire's Section B contained six questions that asked respondents about the effect of research productivity on economic advancement. Section C contained six questions about the factors that influence research productivity and section D also contained six items about the challenges that militate against research productivity. Items were developed from four Likert scales, which require an individual participant to respond to a series of statements in the questionnaire by indicating whether he/she strongly agrees (SA), agrees (A), disagree (D), or strongly disagrees (SD). SA=4, A=3, D=,2 and SD=1. The decision point for the means was fixed at a decision mean of 2.50. This was due to the four-point rating system that was employed. In other words, 4+3+2+1=10 and 10/4=2.50. The item was regarded to be in disagreement if the mean score was less than 2.50, and in agreement, if the mean was 2.50 or above.

The questionnaire's face and content validity were determined by two specialists in educational measurement and evaluation who reviewed the preliminary version of the tool and provided insightful feedback. Using 30 lecturers who were not involved in the study, a pilot test was conducted to ascertain the reliability of the questionnaire. SPSS computation revealed a Cronbach's Alfa coefficient of 0.891 > 0.75. The researchers thought that this number was adequate for the study since it had strong internal consistency.

IV. DATA ANALYSIS AND RESULTS

Regarding the analysis of data, the researcher applied a statistical tool, namely, Statistical Package for Social Sciences (SPSS) version 24 to analyze the gathered data. With this package, the researcher made use of descriptive statistics, notably, frequency, mean and standard deviation. Pearson product moment correlation analysis was used to test and analyse the first null (Ho1) hypothesis which states that there is no significant relationship between research productivity and lecturers' economic advancement and the second null (Ho2) hypothesis which states that there is no significant effect of research productivity on lecturers economic

advancement. Data on the rest of objectives was analyzed by using descriptive statistics, namely; frequency, mean and standard deviation.

The research model is stated below:

LED= β0+ β1RP + μ… equ. (1)

Where:

RP= Research Productivity

LED= Lecturers Economic Advancement

μ= Error term capturing other explanatory variables not explicitly included in the model.

β0 = Constant Parameter

All the process of data analysis was done with reference to research objectives, and findings to make recommendations to education stakeholders.

Findings, Analysis and Discussion

Research Question 1

What are is the effect of research productivity on lecturers' economic advancement?

Table 1

S/N	Items	MEAN	STD	DECISION
1	Research productivity affect lecturers in their career progression and economic advancement positively	3.396825	2.75	Agree
2	My research capacity proportion to my economic strength	3.190476	2.55728	Agree
3	Research in my work does not empower me economically	2.373016	1.834415*	Disagree
4	With or without my research work, I am empowered economically	3.047619	2.446248*	Disagree
5.	The more I research the more I my salary increases	3.269841	2.660708	Agree
6	My promotion is not hinged on my research work capacity	2.214286	1.781742*	Disagree
	Weighted Mean	2.915344	2.33963	Accepted

The data in table 1 indicates that the mean value for all the items except item 3, "Research in my work does not empower me economically" (M=2.37, STD= 1.83), item 4, "With or without my research work, I am empowered economically "(M= 3.04, STD = 2.44) and item 6. "My promotion is not hinged on my research work capacity" (M=2.21, STD =1.78) for lecturers in North central zone college of education exceeded the mid-point of 2.50. ITEM 1, "research productivity affect lecturers in their career progression and economic advancement positively" had the highest mean value (M=3.39, STD = 2.75) and this is in agreement with. In addition, the Weighted Mean (WM) scores of 2.91 clearly showed that research productivity has effect on lecturers' economic advancement and the findings of this research is in line with [34]; [36]; Adu-[10] and [38] who have all posited that research productivity has effect on lecturers economic advancement.

Research Question 3

What are the factors that influence research productivity?

Table 2

S/N	**ITEMS**	**MEAN**	**STD**	**DECISION**
1	Salary and promotion do not influence research productivity.	2.333333	1.906547	Disagree
2	The College management encourages lecturers irrespective of gender.	3.563492	2.946615	Agree
3	Family-related variables and gender influence research productivity	2.126984	1.603567	Disagree
4	Motivation and interest influence my research productivity	3.531746	2.881248	Agree
5	The College does not encourage research in our college	1.849206	1.374369	Disagree
6	The availability of research funding influence research productivity	3.571429	2.9277	Agree
	Weighted mean	**2.829365**	**2.273341**	**Accepted**

The data in table 2 indicates that the mean value for all the items except item 1, "Salary and Promotion do not influence research productivity'' (M=2.333333, STD=1.906547,) item 3, "Family-related variables and gender influence research productivity" (M=2.126984, STD=1.603567) and item 5, "The College does not encourage research in our college" (M=1.849206, STD=1.374369) for lecturers in North central zone college of education exceeded the mid-point of 2.50. ITEM 6, "The availability of research funding influence research productivity'' (M=3.571429, SD=2.9277). item 3, "Family-related variables and gender influence research productivity" (M=2.126984, STD=1.603567) not agree by the respondents is in agreement with the finding of [4] who reported no gender influence In addition, the Weighted Mean (WM) scores of 2.82 clearly showed that 'The availability of research funding influence research productivity'(M=3.571429, STD=2.9277) is the major influence of RP and also since the respondents did not agree to item 1, it shows that salary and promotion has an influence on RP and this is inline with the submissions of [23], that academic staff salaries in universities have a significant impact on the calibre and volume of their research output.

Research Question 4
What are the Challenges militating Against Research Productivity?

Table 3

S/N	ITEMS	MEAN	STD	DECISION
1	Poor academic facilities and resources to work with	3.039683	2.572751	Agree
2	an excessive amount of work (which means little time for research and maintaining a healthy work-life balance	3.642857	3.026339	Agree
3	an excessive number of administrative tasks and inability to balance maintain healthy	3.5	2.957369	Agree
4	Limited of data access and data management	3.642857	2.968084	Agree
5	insufficient research grants or funds	3.753968	3.065424	Agree
6	inadequate research skills to develop appropriate research design and methodology	3.746032	3.091206	Agree
	Weighted mean	**3.554233**	**2.946862**	**Accepted**

The data in table 3 indicates that the mean value for all the items for lecturers in North central geographical zone college of education exceeded the mid-point of 2.50. The table shows that the respondents agreed to all the optional items of research productivity. Item 5,'Insufficient research grants or funds' scored the highest mean score of 3.74 and STD= 3.09 and this is inline with the works of [10] [29] who identified funds as a major barrier to research productivity. Item 1, 'Poor academic facilities and resources to work with' had the lowest mean (M= 3.03, STD = 2.57). In addition, the Weighted Mean (WM) scores of 3.55 clearly showed that there are several challenges that research teams and individual researchers must face in order to achieve their research goals.

Research question 2
What is the relationship between research productivity and lecturers economic advancement?

Research Hypothesis 1
$H0_1$. There is no relationship between research productivity and lecturers' economic advancement

Table 6
Relationship between research productivity and lecturers' economic advancement

Correlations

		OS5	OS7
PIS	Pearson Correlation	1	.751**
	Sig. (2-tailed)		.000
	N	6	6
TWP	Pearson Correlation	.751**	1

	Sig. (2-tailed)	.000	
	N	6	6

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 shows the correlation between research productivity (RP) and lecturers' economic advancement (LEP). The result shows that RP and LEP have the strong positive significant relationship 0.751** at 1% (0.001). That is an increase in research productivity (RP) will lead to an increase in lecturers' economic advancement (LEA). Therefore, since there exists a strong positive significant relationship between research productivity (RP) and lecturers' economic advancement (LEA), the null hypothesis is hereby rejected and the alternative hypothesis which states that there is a relationship between research productivity and lecturers' economic advancement is accepted.

Research Hypothesis 2

$H0_2$. There is no significant effect of research productivity on lecturers' economic advancement

Table: 7

Results of the Regression Analysis showing the effect of research productivity on lecturers' economic advancement.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.677[a]	.541	.751	.578

a. Predictors: (Constant), RP

b. Dependent Variable: LEA

Source: *Researcher's Computation, 2022*

The model summary above shows that the regression model is of good fit. The co-efficient of determination R-square which measures the proportion of changes in the dependent variable that is explained by the independent was 54% (0.541) while the remaining 46% (0.469) is explained by other variables not included in the model.

Table 8

ANOVA table showing the relationship between research productivity and lecturers' economic advancement.

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.424	1	14.424	45.697	.000[b]
	Residual	5.366	5	.316		
	Total	19.780	6			

a. Dependent Variable: LEA

b. Predictors: (Constant), RP

Furthermore, table 8 shows an ANOVA table, which provides F test of whether the relationship between the independent variable and the dependent variable is significant. The F test gives a value of 45.697 and an asymptotic significance of p = 0.000 at 1%[s]. This suggests that the relationship between research productivity (RP) and lecturers' economic advancement (LEA) is significant.

Table: 9

Coefficients table showing the relationship between research productivity and lecturers economic advancement

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.298	.311		.879	.372
	RP	.619	.091	.861	6.680	.000

a. Dependent Variable: LEA

From the table 5, the constant gave a value of .298 which is the intercept, hence establishing a positive relationship between lecturers' economic advancement (LEA) and its determinant research productivity (RP). A 1% change in research productivity (RP) will result in 0.619% change in lecturers' economic advancement. The result further shows that RP has positive significant influence on LEA with a β value of 0.646 as shown in the model below:

LEA = 0.298+ 0.619RP.

Therefore, based on the findings we reject the null hypothesis and accept the alternate hypothesis which states that there is a significant effect of research productivity on lecturers' economic advancement.

V. CONCLUSION

Based on the research findings, it can be concluded that there is a positive correlation between research productivity and lecturers' economic advancement. This means that lecturers who are more productive in terms of research output tend to experience higher levels of economic advancement, such as salary increases, promotions, and grants. This conclusion aligns with the general understanding that research productivity is an important factor in determining academic success and is often considered in the evaluation and promotion of lecturers. Research productivity is essential for successful research teams and individual researchers. However, the outcomes of research productivity are hindered by challenges and these include Limited of data access and data management, insufficient research grants or funds, inadequate research skills to develop appropriate research design and methodology. By addressing these challenges, researchers and research teams can increase their research productivity and achieve their desired research outcomes.

RECOMMENDATIONS

The following have been recommended based on the findings of the study:

1. 1 them with the necessary resources and support. This may include funding for research projects access to research databases and libraries, and support from research staff.
2. Time management: Lecturers can be advised to manage their time effectively to ensure that they are able to balance their teaching and research responsibilities. This may involve prioritizing tasks, setting deadlines, and delegating tasks where appropriate.
3. Collaboration: Lecturers can be encouraged to collaborate with other researchers and academics in their field. This can help to increase productivity and improve the quality of research.
4. Training and development: Lecturers can be provided with training and development opportunities to enhance their research skills and knowledge. This may include attending conferences, workshops, and seminars, as well as participating in online courses.
5. Incentives: Institutions can provide incentives to encourage lecturers to conduct research. This may include bonuses, promotions, increment of salary and other forms of recognition for research productivity.
6. Mentoring: Lecturers can be provided with mentoring and guidance from senior academics to help them develop their research skills and advance their careers.
7. Networking: Institutions can facilitate networking opportunities for lecturers to connect with other researchers and academics in their field. This can help to foster collaboration and promote the sharing of ideas and knowledge.
8. Support for publishing: Institutions can provide support for lecturers to publish their research findings in reputable journals and other publications. This may include assistance with manuscript preparation, editing, and submission.

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