

Impact of Funding and Resource Control on Research Productivity in Nigerian Universities

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Abstract

The need to increase research productivity in Nigeria, is attracting the interest of academic scholars in recent times. Hence, this paper examines the impact of funding and resource control on research productivity in Nigerian Universities. Four hypotheses were formulated to guide the study based on the parameters of funding and research control namely Government grants/subvention, institutional self financing, and international aids. The data collected was thereafter analyzed with the use of frequency count and percentage, chi –square statistics and analysis of variance (ANOVA). The findings from the study revealed that there was a significant impact of Government grant/subvention on the volume of research output ($X^2 = 14.85; P < 0.041$). There was also a significant impact of institutional self financing and international aid on the number of research output, with $X^2 = 10.9; P < 0.041$, $X^2 = 11.0; P < 0.041$ respectively. It was also found that the extent to which funding parameters increase research productivity is largely dependent on the level of control of financial, human and material resources within a given university. Based on the findings made, the study recommended amongst other things, that Government should make frank effort to increase funding of universities. Also university management team should create resource control department that would be saddled with the responsibility of ensuring judicious use and accountability of university resources.

Background to the Study

Research productivity is one of the pivotal points on which university education rests (Bassey, Akuegu and Udey, 2007). It has emerged a cardinal responsibility of tertiary institutions in the new millennium. Although turning out research works is very important, difficulties are being encountered by academic staff in different universities. Such problems emanate from lack of funds to carry out research studies to full completion.

Some of the factors that are contributing to the decline in research were identified by Okebukola (2005) to include, Lack of research skills in modern research methods; Lack of equipment for carrying out scientific research; Overloaded teaching and administrative schedules which leave little time for research; Difficulty in accessing research funds and Diminishing ability of seasoned and senior researchers to mentor junior researchers due to brain drain.

There are rising opinion that the bottom line of these challenges stem from lack of sufficient finance to fund research activities. It is anticipated that increased funding and making it accessible would bail the nation out from low research level of research production. According to Olabisi (2005), that there are three major sources of university revenues namely; grants from the government (NUC/Federal/State), internally generated funds within the university itself (e.g. fees tuition; incomes from investments), and endowments/gifts.

Moreover, it is imperative that university resources (human, material and financial) are adequately managed. Where the control of resources is poor, research productivity could be adversely affected. It is these tendencies that necessitated the study. This study therefore seeks to

investigate the impact of funding and resource control on research productivity in Nigerian Universities in South-West Nigeria.

Concept of Research and Research Production

According to Ogbogu' and Christiana (2009) research is a thorough, scholarly and scientific investigation or inquiry. It is a journey into the unknown based on systematic processes, observations and inference. Basically, there are two groups of research namely theoretical and applied research. While theoretical research aims at advancing the frontiers of knowledge, applied research aims at giving practical (empirical) content to theoretical constructs.(Christiana,2009).Applied research has an aspect, known as policy research. This aims at ensuring that policy decisions can be based on objective evidence and it is normally addressed to the main actors in the policy making process, namely, the politicians, bureaucrats and special interest groups. Research production on the other refers to the formal documentation of research processes, methodology and findings. It is often approved by relevant personnel and sealed in relevant journals.

Government Grants, Subventions and Research Productivity

Babalola, Okunola, Adeyemi and Ibekwe (1996) have reported that in Nigeria, universities depend on government for over 95% of its funds. This however have always been insufficient to meet the needs of universities especially in funding academic research. Adetanwa and Olabisi (2005) opined that considering the high rate of inflation in the country, the increase in NUC grants may not be commensurate with increase in the cost of running the university system. This implies that funds available for several studies have examined the relationship between research funding and research publications . For example, Arora and Gambardella (1998) find that past productivity and other observable researcher characteristics like gender of researcher, experience etc affects subsequent volume of research output. While these studies generally suggest that government funding can increase research output, Klette, Moen and Griliches (2000) have noted that all of these studies are susceptible to serious selection biases.

Institutional Self Financing and Research Productivity

In this study, institutional self financing refers to various means in which Nigerian universities now generate money from within, to finance its operations. Adetanwa and Olabisi (2005) have noted that the inadequate funding of universities has, no doubt, had calamitous effect on teaching and research and universities have been forced to embark on income generating projects in order to source for funds. Since universities expend its money along the objective that establishes it, it is expected that increase in the overall money generated by a university would imply more funds voted to research activities. This would subsequently increase research productivity.

Statement of the Problem

There has been a gradual decline in research productivity in higher educational institutions in Nigeria..This singular problem has devastating consequences in multiple directions. For instance, improved productivity and serious commitment to rebuilding capacity in all sectors of Nigerian economy have not been attainable over the years due to neglect of the government and inadequate funding of research work .Even when funds are eventually released, their effective utilization is still a challenge. Hence, Nigerian universities is yet to be ranked among the best in the world.

Research Hypotheses

Ho₁. There is no significant effect of the total amount of Government grants/ subventions on the volume of research output in the Universities in South West Nigeria?

- Ho₂. There is no significant effect of institutional self financing of research activities on the number of research output in the Universities in South West Nigeria?
- Ho₃. There is no significant effect of obtaining funds through international aids on the rate of research output in the Universities in South West Nigeria.
- Ho₄. There is no significant impact of resource control on the rate of research output in Universities in South West Nigeria.

Methodology

Population of the Study

The population of study comprises 14 public universities in South West, Nigeria namely; University of Agriculture Abeokuta, Olabisi Onabanjo University, University of Oye Ekiti, Ekiti State University, University of Lagos, Lagos State University, Tai Solarin University of Education, Obafemi Awolowo University Ife, Osun State University, Ladoke Akintola University, University of Ibadan, Federal University of Technology Akure, Adekunle Ajasin University and Ondo State University of Science and Technology..

Sample and Sampling Technique

The study sampled 6 public universities from the entire 14 public universities in the region. The researcher further sampled 70 academic staff from each of the 6 universities under investigation. This brings the total number of academic staff for the study to 420. The sampling technique employed is multistage sampling technique following proportionate procedures.

Instrument

The instrument for data collection is questionnaire. The questionnaire is titled "Impact of funding on research output questionnaire (IFROQ). The questionnaire has three sections A,B and C. Section A deals with general information about the respondents while section B elicit information on funding as it affects research works. Section C deals with research out put. The questionnaire is structured with four options according to Likert's scales namely strongly agree, agree, disagree and strongly disagree.

RESULTS AND DISCUSSION

Hypotheses 1

There is no significant effect of the total amount of Government grants/subventions on the volume of research output in the universities in South West Nigeria.

Table 4. 1: Chi – Square result for the Effect of the Independent variable (Government Grants/Subvention) on the Dependent Variable (Volume of Research Output).

Variable	N	Degree of freedom	χ^2 (Calculated)	χ^2 (Theoretical)	Level of Sig	P Value	Remark
Government Grant/Subvention	402	4	14.85	7.81	0.05	0.033	Hypothesis Rejected
Volume of Research Output							

N = 402; Level of Sig = 0.05

From the table above, since χ^2 -calculated (i.e 14.85) exceeded the χ^2 -table value (i.e 7.81), the null hypothesis is therefore rejected. It follows that there is a significant effect of Government grant/subvention on the volume of research output in the universities in South-West Nigeria.

The above results showed that Government grant/subvention have significant influence on the volume of research output in Universities in South West, Nigeria. This could be due to the fact that the production of research work has cost implication. Money is spent in the process of carrying out research projects. This finding is in consonance with the submissions of Arora and Gambardella (1998) who reported that Government funding can increase research output in Nigeria. Similarly, Kwanshie and George (2005) asserted that funding from the government increases research output in higher education institutions.

Hypotheses 2

There is no significant effect of institutional self financing of research activities on the number of research output in the universities in South West Nigeria.

Table 4.2: Chi – Square result for the Effect of the Independent variable (Institutional Self Financing) on the Dependent Variable (Number of Research Output).

Variable	N	Degree of freedom	χ^2 (Calculated)	χ^2 (Theoretical)	Level of Sig	P Value	Remark
Institutional Self-financing	402	4	10.90	7.81	0.05	0.033	Hypothesis Rejected
Number of Research Output							

N = 402; Level of Sig = 0.05

From the table above, since χ^2 -calculated (i.e 10.90) exceeded the χ^2 -table value (i.e 7.81), the null hypothesis is therefore rejected. It follows that there is a significant effect of institutional self financing on the number of research output in the universities in South-West Nigeria.

This is due to the fact that when funds are available for research purposes, no matter its source, research output is boosted. This finding agreed with the submission of Adetenwa and Olabisi (2005) who opined that due to the calamitous effect of inadequate funding, universities have been forced to generate their funds. Since universities expend its money along the objective that established it, it is expected that increased institutional self financing would imply more funds voted to research activities. This would subsequently increase research output.

Hypotheses 3

There is no significant effect of obtaining funds through international aids on the rate of research output in the universities in South West Nigeria.

Table 4.3: Chi – Square result for the effect of the Independent variable (Funding through International Aids) on the Dependent Variable (rate of Research Output).

Variable	N	Degree of freedom	χ^2 (Calculated)	χ^2 (Theoretical)	Level of Sig	P Value	Remark
International Aids	402	4	11.0	7.81	0.05	0.033	Hypothesis Rejected
Rate of Research Output							

N = 402; Level of Sig = 0.05

From the table above, since χ^2 -calculated (i.e 11.0) exceeded the χ^2 -table value (i.e 7.81), the null hypothesis is therefore rejected. It follows that there is a significant effect of funding through international aids on the rate of research output in the universities in South-West Nigeria.

This findings is in support of the earlier assertion of Erinosh(2006) who reiterated that several international agencies have provided specific scientific and technological research and developmental support to Nigerian universities. Also, Faniran and Akintato (2012) noted that international aids to Nigeria has improved research output but this was retarded when Nigeria gave the world the impression that she has money by her declaration of free tuition.

Hypothesis 4

There is no significant impact of resource control on the rate of research output in Universities in South West Nigeria.

Table 4.4: ANOVA result for the impact of the Independent variable (resource control Funding through International Aids) on the Dependent Variable (rate of Research Output).

Sources of Variation	Sum of Squares	Degree of Freedom	Variance	F-ratio (critical)	F-ratio (calculated)	P Value	Conclusion
Between Groups	46.4 2	2	23.21	3.02	5.79	0.038	Hypothesis Rejected
Within Groups	1601.82	399	4.01				

N = 402; Level of Sig = 0.05

From the table above, since F – ratio calculated (ie 5.79) exceeded the F – ratio table value (ie 3.04), the null hypotheses is therefore rejected. That is, there is a significant impact of resource control on the rate of research output in Universities in South West Nigeria.

Conclusion

Based on the results obtained, it is therefore concluded that the various aspect of university funding namely Government grant/subvention, institutional self financing and international aid, all exert significant impact on research productivity in the universities in South West Nigeria. It is also concluded in this study that the extent to which funding parameters increase research productivity is

largely dependent on the level of control of financial, human and material resources within a given university.

Recommendations

This study therefore recommended amongst other things, that Government should make frank effort to increase funding of universities. Also university management team should create resource control department that would be saddled with the responsibility of ensuring judicious use and accountability of university resources.

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