



Influence Of Library Information Resources And Services On Research Productivity Of Agricultural Scientists In Agricultural Institutions In Benue State

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ABSTRACT

The study investigated the influence of Library Information Resources and Services on Research Productivity of Agricultural Scientists in Agricultural Institutions in Benue State. Three purposes with corresponding research questions and two hypotheses were formulated and tested at 0.05 level of significance. The study adopted survey research design. The population of the study comprises of 242 Agricultural Scientists in Agricultural Institutions in Benue. Sample size of 151 Agricultural Scientists was arrived at using proportionate stratified and simple random sampling techniques. The instrument employed for data collection was a self-constructed structured questionnaire which was validated by experts. The internal consistency of the instrument was established using Cronbach alpha method and an overall reliability index of 0.81 was obtained which shows that the instrument was highly reliable. The data for the study were analyzed using Frequency Count, Mean and Standard Deviation to answer the research questions and Chi-Square Statistic to test the hypotheses. The findings of the study revealed that the research productivity of the agricultural scientists is considerably low. The researcher concluded that, the research productivity of Agricultural Scientists is low despite the high availability and utilization of library information resources and services.

Keywords: Agricultural institutions, Benue state, information resources, information services, research productivity.

1. INTRODUCTION

The library and information services delivery has been recognized to be essential for effective research productivity of scientists in agriculture. This is because researchers need current and relevant information resources to be able to carry out quality research. It is in the recognition of this fact that government established libraries in agricultural institution to provide library information services and resources to

support research activities to solve agricultural problem and enhance food production of the nation. To achieve this, it has to involve the development of viable agricultural research libraries, with strong mandate to provide information resources and services to meet the information needs of agriculturalists and other stakeholders in agriculture to find solution of improvement on agriculture. Agricultural research holds a great potential for raising agricultural productivity and reducing poverty in every nation. This is because research in agriculture is required to meet the food and economic needs of the nation, provide employment for the populace, as well as preserve the natural resources [1]. The policy makers, researchers and stakeholders in agriculture are also of the opinion that information resources and services provision and utilization are key components of research and development efforts in agriculture, thus the need for effective library and information service provision [2]. Modern agricultural research and development efforts have also been partly attributed to the spread of information and the ability of researchers to access and utilize research results. The key tenet of this information provision view point is that researchers need to access and utilize information in order to optimally enhance their Research and productivity outputs in agriculture [3].

[4] define information resources as those information-bearing materials that are in both printed and electronic formats, such as textbooks, journals, indexes, abstracts, newspapers and magazines, reports, CD-ROM databases, the Internet/E-mail, video tapes/cassettes, diskettes magnetic disk, computers, micro forms and so on. These information materials are the raw materials that libraries acquire, catalogue, stock, and make available to their patrons. According to [5] a good library should be well equipped with books and periodicals in all subjects to advance study and research. The duty of a university library is to collect, organise and disseminate information to academics,



research scholars and students, and support the generation of new knowledge.

The up-to-datedness of contents in courses, the continuous academic growth and competence of academic staff members and research productivity as well as the quality of learning environment depend on how effective the academic library is in identifying and connecting information on current developments in various subject fields with the academic community. [5] claims that, in order to satisfy the diverse information needs and interests of the academic community (agricultural scientists), the library collection must be adequate in terms of quantity, quality and currency. The collection must also be accessible to the agricultural scientists for use. The provision of quality information will invariably have positive impact on research productivity in agriculture; on the contrary, if the quality of the information provided leaves much to be desired, the result or productivity would be worse. From the foregoing, one can conclude that information resources are pertinent to research productivity.

From a food policy perspective, [6] maintains that sustainable strategies aimed at reducing poverty and hunger and improving nutrition in Africa requires access to high quality information resources that enable decision makers to articulate and plan for the long term, as well as to enable researchers to enhance their research activities. Thus high quality information services provision is fundamental to research in agriculture, and the necessity to provide the information services rest squarely on agricultural research libraries in Nigeria. [7] States that one major factor that makes agricultural libraries different from other information gateways is their ability to provide information resources and services unique to the institutions they serve. The author concludes that other information gateways such as Google scholars, internet among others do not provide such information and services.

Libraries has also provided a range of services which facilitates the inter-change of library data, promote the interoperability of library system, and support the operation of national and international networking of libraries. These services include reference services, circulation services, current awareness services, selective dissemination of information, internet services, inter-library loan services among others. These services play important roles in the library

collection, in collections of other libraries or which are accessible in the World Wide Web.

These libraries remain societal mechanism designed essentially for provision of needed information resources and services for high quality agricultural productivity through research.

[8] Observed that there had been low patronage to the agricultural research libraries by agriculturalists in Nigeria in recent years, resulting to poor development of agricultural programmes. In the same vein, the researcher observed that Agricultural scientists in Nigerian universities and especially in Benue state seem to be alienated in global research and publications in spite of digital revolution in research. This problem could be attributed to inadequate library information resources and services leading to low levels of accessibility and utilization of library resources and services. However, it is known that the provision of relevant information resources and services in research institute libraries will motivate/influence users' patronage and absence of relevant information resources and services on the other hand retards or limits maximum utilization of information in the libraries. "To what extent does the utilization of these resources and services influence the research productivity of agricultural scientist?" is the concern of this research. It is to this end that the study seeks to investigate the influence of library information resources and services on research productivity of Agricultural Scientists in the agricultural institutions in Benue State, Nigeria.

2. PURPOSE OF THE STUDY

The main purpose of the study is to investigate the influence of library information resources and services on research productivity of agricultural scientists in agricultural institutions in Benue state. The specifically, the study seeks to:

1. Determine the extent to which agricultural scientists utilize available library information services in the agricultural institutions in Benue State
2. Determine the extent to which the use of the available library information resources by agricultural scientists influence their research productivity in the agricultural institutions in Benue State
3. Determine the extent to which the use of the available library information services by agricultural



scientists influence their research productivity in the agricultural institutions in Benue State

4. Determine the quantity of research productivity among agricultural scientists in agricultural institutions in Benue State.

2.1 Research Questions

The following research questions guided the study:

1. To what extent does the use of the available library information resources by Agricultural Scientists influence their research productivity in the Agricultural Institutions in Benue State?

2. To what extent does the use of the available library information services by agricultural scientists influence their research productivity in the agricultural institutions in Benue State?

3. What is the quantity of research productivity among agricultural scientists in agricultural institutions in Benue State?

2.2 Research Hypotheses

The following null hypothesis guided the study and were tested at 0.05 level of significance

1. The use of the available library information resources by Agricultural Scientists does not significantly influence their research productivity in the Agricultural Institutions in Benue State

2. The use of the available library information services by Agricultural Scientists does not significantly influence their research productivity in the Agricultural Institutions in Benue State

3. METHODOLOGY

3.1 Design of the Study

The study adopted a survey research design. Survey research design is one in which a group of people or item is studied by collecting and analyzing data from a few people or item considered to be representative of the entire population. This design is therefore appropriate for this study because data on the influence of library information resources and services on research productivity of agricultural scientists in Benue State was collected from a sample of agricultural scientists in the agricultural institutions in Benue state.

3.2 The Area of the Study

The study was conducted in Benue State -Nigeria. Benue State was created on the 3rd of February, 1976 with the capital city at Makurdi. It is inhabited predominantly by the Tiv and Idoma peoples, who

speak the Tiv language and Idoma respectively. There are other ethnic groups, including the Igede, Etulo, Abakwa, Jukun, Hausa, Igbo, Akweya and Nyifon. Benue State is a state in the middle belt region of Nigeria with a population of about 4,253,641 in 2006 census. Benue State was formed from the former Benue-Plateau State in 1976. Benue is a rich agricultural region; some of the crops grown there are potatoes, cassava, soya bean, guinea corn, flax, yams, sesame, rice, and groundnuts. Benue state shares boundary with Nasarawa state in the North, Ebonyi State and Enugu State in the South west, Kogi State in the North West, Taraba state in the North East and Cross River State in the South. The state is located in the North Central Geo-Political Zone of Nigeria. Benue State has two agricultural institution; University of agriculture Makurdi and Akperan Orshi College of Agriculture, Yandev. The University of Agriculture Makurdi was established in 1988 with the mandate of complementing the effect of Federal Government in the area of agriculture while Aperan Orshi College of Agriculture Yandev was established in 1973 to complement the effect of the state government in the area of agriculture. The suitability of Benue State for the study is that, the state is predominant by agricultural activities and the researcher observed a lack of agricultural research productivity in terms of published books, articles, journals among others.

3.3 Population of the Study

The population for the study comprises of 242 Agricultural scientists in the two agricultural institutions in Benue State. Among the 242 agricultural Scientists, 160 were from Federal University of Agriculture, Makurdi (FUAM) and 82 Agricultural scientists from Akperan Orshi College of Agriculture Yandev (AOCAY), Gboko.

3.4 Sampling and Sample technique

The sample size of 151 Agricultural scientists was used for this study. This sample size was drawn using Taro Yamen formulae. The proportionate stratified random sampling technique was used to select the sample from the two agricultural institutions to ensure that, appropriate weights of the agricultural scientists in the two agricultural institutions are included in the sample.

3.5 The instrument for data collection

The instrument for data collection was a questionnaire developed by the researcher and titled "Influence of Library Information Resources and Services for Research Productivity of Agricultural Scientists"

(ILIRSRPAS). The instrument was divided into four sections A-D in consonant with the research questions raised for the study. Section A, has 16 items and contain information on the available library information resources, Section B has 12 items and contain information on the available library information services, Section C has 16 items and seeks to obtain information on the extent of use of the available library information resources while Section D has 12 items and seek to obtain information on the extent of use of library information services, Section E has 9 items and seek to obtain information on the extent to which the use of library information resources influence research productivity. The response format for items measuring the available information resources and services was AV=Available and NAV=Not available. For the items measuring extent of utilization, the response format was: VHI=very High Extent; HE=High Extent; LE=Low Extent and VLE=Very Low Extent.

3.6 Reliability of the Instrument

To establish the reliability of the instrument, it was subjected to trial testing. The result obtained from the trial testing was used to calculate the internal consistency reliability of the instrument using Cronbach Alpha with a coefficient of 0.81 which shows that the instrument was highly reliable.

3.7 Method of Data Analysis

The data collected were analyzed using descriptive statistics of Frequency Counts, Percentages, Mean and Standard Deviation to answer the research questions. For the instrument with two response format on availability, the benchmark for decision was 50%. This means that 50% and above was considered available and 50% below was considered not available. For the instrument in the form of a continuum (Very High Extent, High Extent, Low Extent and Very Low Extent) the items were scored using the format thus; VHE=4, HE=3, LE=2, VLE=1. The benchmark or anchor point was obtained thus = 2.50. A mean of 1.00 - 2.00 was considered very low extent, 2.00 - 2.49 was considered low extent, 2.50 - 2.99 was considered high extent and 3.00 - 4.00 was considered very high extent.

4. RESULTS

The presentation of result follows the sequence of the research question and hypothesis that guide the study.

4.1 Research Question One

To what extent does the use of the available library information resources by Agricultural Scientists

influence their research productivity in the Agricultural Institutions in Benue State?

The answer to this research question is presented in table 1.

Table 1, Analysis of the Extent to which the Use the available Library Information Resources Influence the Research Productivity of Agricultural Scientists

S N	Items Statement	Mean	SD	Remark
1	I use library information resources to investigate recent discoveries in Agriculture	3.09	1.00	VHE
2	I use library information resources for my agricultural term papers	3.11	1.04	VHE
3	I use library information resources to keep abreast with agricultural development to enhance my research	3.05	1.05	VHE
4	I use library information resources to write journals in agriculture	3.03	.94	V H E
5	I use library information resources to exchange ideas with colleagues on agricultural research	3.26	.96	VHE
6	I use library information resources to popularize my journals	2.99	1.04	HE
7	I use library information resources to stay up to date with current agricultural policies	3.26	.86	VHE
8	I use library information resources for my book writings	3.36	.90	VHE

9	I use library information resources to write articles in agriculture	3.13	1.01	VHE
	Grand Mean	3.14	.98	VHE

VHE=Very High Extent, HE=High Extent, LE=Low Extent, VLE=Very Low Extent

Table 1 shows the extent to which the use of the available library information resources influences the research productivity of Agricultural Scientists in the Agricultural Institutions in Benue State in Means and Standard Deviations. From the table as indicated by the Agricultural Scientists item 1 with Mean= 3.09 and SD =1.00 is to a very high extent, utilized; item 2 with Mean=3.11 and SD=1.04 is to a very high extent, utilized; item 3 with Mean=3.05 and SD =1.05 is to a very high extent utilized; item 4 with Mean=3.03 and SD=.94 is to a very high extent utilized; item 5 with Mean=3.26 and SD=.96 is to a very high extent, utilized; item 6 with Mean=2.99 and SD=1.04 is to a very high extent utilized; item 7 with Mean=3.26 and SD=.86 is to a very high extent utilized; item 8 with Mean=3.36 and SD=.90 is to a very high extent utilized and item 9 with Mean=3.13 and SD=1.01 is to a very high extent utilized. The table also reveal a Grand Mean=3.14 and corresponding SD=.98 which shows that the library information resources are to a very high extents utilized by the Agricultural Scientists in the Agricultural Institutions in Benue State to enhance their research productivity.

4.2 Research Question Two

To what extent does the use of the available library information services by agricultural scientists influence their research productivity in the agricultural institutions in Benue State?

The answer to this research question is as presented in table 2.

Table 2, Analysis of the Extent to which the Use of the available Library Services Influence the Research Productivity of Agricultural Scientists

S/N	Items	Mean	SD	Decision
1	I use library information services to investigate recent discoveries in Agriculture	2.98	1.03	High extent
2	I use library information services for my agricultural term papers	3.04	.98	VHE

3	I use library information services to keep abreast with agricultural development to enhance my research	3.07	1.07	V H E
4	I use library information services to write journals in agriculture	3.15	.92	V H E
5	I use library information services to exchange ideas with colleagues on agricultural research	3.25	.93	V H E
6	I use library information services to popularize my journals	3.04	.97	V H E
7	I use library internet services to stay up to date with current agricultural policies	3.17	.91	V H E
8	I use library information services for my book	3.21	.91	V H E
9	I use library information resources to write articles in agriculture	2.96	.99	High extent
	Grand Mean	3.10	.97	VHE

VHE=Very High Extent, HE=High Extent, LE=Low Extent, VLE=Very Low Extent

Table 2 shows the extent to which the use of the available library services influence the research productivity of Agricultural Scientists in the Agricultural Institutions in Benue State in Means and Standard Deviations. From the table as indicated by the Agricultural Scientists item 1 with Mean= 2.98 and SD=1.03 is to a high extent, utilized; item 2 with Mean=3.04 and SD=.98 is to a very high extent, utilized; item 3 with Mean=3.07 and SD=1.07 is to a very high extent utilized; item 4 with Mean=3.15 and SD=.92 is to a very high extent utilized; item 5 with Mean=3.25 and SD=.93 is to a very high extent, utilized; item 6 with Mean=3.04 and SD=.97 is to a very high extent utilized; item 7 with Mean=3.17 and SD=.91 is to a very high extent utilized; item 8 with Mean=3.21 and SD=.91 is to a very high extent utilized and item 9 with Mean=2.96 and SD=.99 is to a very high extent utilized. The table also reveal a Grand Mean=3.10 and corresponding SD=.97 which shows that the library services are to a very high extents utilized by the Agricultural Scientists in the Agricultural Institutions in Benue State to enhance their research productivity.

4.3 Research Question Three

What is the quantity of research productivity among agricultural scientists in agricultural institutions in Benue State?

Table 3: Analysis of the Quantity of Research Productivity of Agricultural Scientists in the Agricultural Institutions in Benue State

S/N	Items	0-5	6-10	11-15	16-20	21+	Mean	SD	Decision
1	Co-authored textbooks	88	34	11	10	8	1.78	1.17	Low Qty
2	Abstracts	92	23	16	9	11	1.83	1.26	Low Qty
3	Textbooks written	116	34	1	0	0	1.24	.44	Low Qty
4	Technical reports	72	56	11	7	5	1.79	.99	Low Qty
5	Research report	121	18	8	4	0	1.30	.69	Low Qty
6	Term paper	80	22	14	12	23	2.18	1.51	Low Qty
7	Bibliography	151	0	0	0	0	1.00	.00	Low Qty
8	Edited books	117	22	6	1	5	1.34	.87	Low Qty
9	Chapter in book	109	31	5	3	3	1.41	.82	Low Qty
10	Journals	99	31	8	6	7	1.61	1.07	Low Qty
11	Articles	87	29	15	9	11	1.86	1.25	Low Qty
	Grand Mean						1.58	.92	Low Qty

Table 3 shows the quantity of research productivity of agricultural scientists in the agricultural institutions in Benue State in Frequency Counts, Means and Standard Deviations. From the table as indicated by the Agricultural Scientists item 1 with Mean= 1.78 and SD= 1.17 has low quantity productivity; item 2 with Mean=1.83 and SD= 1.26 has low quantity productivity; item 3 with Mean=1.24 and SD=.44 has low quantity productivity; item 4 with Mean=1.79 and SD=.99 has low quantity productivity; item 5 with Mean=1.30 and SD=.69 has low quantity productivity;

item 6 with Mean=2.18 and SD= 1.51 has low quantity productivity; item 7 with Mean=1.00 and SD=.00 has low quantity productivity; item 8 with Mean=1.34 and SD=.87 has low quantity productivity; item 9 with Mean=1.41 and SD=.82 has low quantity productivity; item 10 with Mean=1.61 and SD=1.07 has low quantity productivity and item 11 with Mean=1.86 and SD=1.25 has low quantity productivity. The table also reveal a Grand Mean=1.58 and corresponding SD=.92 which shows that the quantity of research productivity of Agricultural Scientists in the Agricultural institutions in Benue State is Low.

4.4 Hypothesis One:

The use of the available library information resources by Agricultural Scientists does not significantly influence their research productivity in the Agricultural Institutions in Benue State

Table 4: Chi-Square Test of the Influence of Library Information Resources on Research Productivity of Agricultural Scientists

	df	χ^2_{cal}	Sig	Alpha Level	Remark
Pearson Chi-square	24	504.464	.000	.05	Significant
Number of Valid Cases		151			

Table 4 shows the Chi-square calculated value of 504.464 and a sig (P-value=0.00) which is less than the alpha value ($\alpha=.05$). Therefore, Library Information Resources significantly influence the research productivity of Agricultural Scientists in the Agricultural Institutions in Benue State. Hence, the null hypothesis is rejected.

4.5 Hypothesis Two:

The use of the available library information services by Agricultural Scientists does not significantly influence their research productivity in the Agricultural Institutions in Benue State

Table 5: Chi-Square Test of the Influence of Library Services on Research Productivity of Agricultural Scientists

	df	χ^2_{cal}	Sig	Alpha Level	Remark
Pearson Chi-square	24	473.656	.000	.05	Significant

Number of Valid Cases	151			
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Table 5 shows the Chi-square calculated value of 473.656 and a sig (P-value=0.00) which is less than the alpha value ($\alpha=0.05$). Therefore, Library Services significantly influence the research productivity of Agricultural Scientists in the Agricultural Institutions in Benue State. Hence, the null hypothesis is rejected.

5. DISCUSSION OF FINDINGS

Based on the findings derived from the results of the study, the following were discussed.

The findings of this study as shown on table 1 revealed that library information resources to a very high extent are utilized by the Agricultural Scientists for their research productivity in the Agricultural Institutions in Benue State. This implied that there is a high utilization of the available library information resources by the agricultural scientists for their research productivity. This finding agreed to that of Popoola (2008) who reported that, the use of information sources and services and its effects on research output of social scientists in Nigerian Universities is very high. This scenario as witnessed in the Agricultural Institutions in Benue State among the Agricultural Scientists could be as a drive to promote agriculture in the State since Benue State is widely regarded as an Agricultural State evident by its predominant agricultural activities. Similarly, hypothesis one on table 5 which state that, the use of the available library information resources does not significantly influence the research productivity of agricultural Scientists in Benue State was rejected which also concord with the report of Popoola (2008).

The findings of this study as shown on table 2 revealed that library services to a very high extent are utilized by the Agricultural Scientists for their research productivity in the Agricultural Institutions in Benue State. This implied that there is a high utilization of the available library services by the Agricultural Scientists for their research productivity. This finding concord to that of Popoola (2008) who submitted that, the use of information services and its effects on research output of social scientists in Nigerian Universities is very high. The situation as witnessed in the Agricultural Institutions in Benue State among the Agricultural Scientists could be as a drive to promote agriculture in the State. Similarly, hypothesis two on Table 6 which state that, the use of the available library services does

not significantly influence the research productivity of agricultural Scientists in Benue State was rejected which also concord with the report of Popoola (2008). Hence, the use of the available library services significantly influence the research productivity of Agricultural scientists.

Findings of this study as shown on table 3 revealed that the quantity of research productivity of Agricultural Scientists in the Agricultural Institutions in Benue State is low. Popoola (2008) however reported that, the use of information resources and services and its effects on research output of social scientists in Nigerian Universities is very high. This is not the case in the Agricultural Institutions in Benue State due to the fact that, despite the high utilization of the library information resources and services by the Agricultural scientists to enhance their research productivity, their productivity in terms of the number of published books, journals, articles, abstracts, term papers, co-authored books among others are low.

6. CONCLUSION

The study successfully investigated the influence of library information resources and services on research productivity of Agricultural Scientists in the Agricultural Institutions in Benue State. Based on the findings of the study, the researchers concluded that, Agricultural Scientists in the Agricultural Institutions in Benue State highly utilize the available library information resources and services to enhance their research productivity; however their research productivity is considerably low.

7. RECOMMENDATIONS

Based on the finding of the Study, the following recommendations were made

1. Academic Libraries should constantly organize and make available, library information services for the use of Agricultural Researchers as it enhance their research productivity.
2. Government should continue to make adequate provisions of library information resources in Academic libraries to enhance the research productivity of Agricultural Scientists.
3. Agricultural Institutions should stress the need for more research productivity among Agricultural Scientists as it can help increase their research productivity.



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