CORRELATES OF RESEARCH SUPPORT SERVICES DELIVERY IN UNIVERSITY LIBRARIES IN SOUTH-SOUTH NIGERIA

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ABSTRACT
The study examined the relationship that exists between information literacy constructs and research support services delivery in Nigeria. The descriptive correlational research design formed the blueprint for the study while the study`s population comprised 301 librarians from University libraries in South-south geopolitical zone of Nigeria. Given the manageable size of the population, the total enumeration sampling technique was adopted to ensure high rate precision. With a response rate of 83%, the study revealed that librarians` knowledge of their information need and their ability to use needed information significantly predicted research support services delivery in the area understudy, thus implying that a change in one variable affects the other. The study therefore concluded that information literacy skill variables are vital skillset which must be consciously developed by librarians and researchers in order to be an independent lifelong learner even in a constantly changing information society.

Keywords: Research Support Services, Information Literacy, Library services, University Libraries, Nigeria

INTRODUCTION

Universities are known to promote teaching, learning, community service and research. In order to understand some phenomena, make discoveries or solve problems, scholars are required to make some systematic investigations with the hope of proffering solution to the problem or making the world a better place. It is this act that scientist now refer to as research. Kowalczyk (2015) noted that research constitute the application of scientific method to solving society`s problem. This usually begins with the step of problem identification and formulation of research questions/statement of hypothesis to guide the study. Through research, scientists are able to provide explanations to social phenomenon and solve social problems. However, in order to promote quality research and improve the visibility of universities, university libraries offer diverse form of support to researchers throughout the research lifecycle. This is what is today known as research support services (Borrego & Anglada, 2018).

According to Borrego and Anglada (2018), research support services connote the contributions of library staff towards the successful completion of research activities in an institution. These intervention/contributions could come at any phase of the research process,

including the research planning phase, literature search phase and publication phase etc. Given the increasing complexities associated with retrieving just the right information from a pool of information, it has become more important for librarians to offer research support to researchers in any phase of their research work. Regardless of the phase, library staff are able to offer support and information to help meet the information needs of the researchers. Also, Corrall (2012) noted that research support services within the context of academic libraries refer to librarians overall services and activities aimed at meeting the research information needs of library users. While most research support services offered by academic libraries include bibliometric analysis, data management and provision of information on funding agencies; Afzal, Corral, and Kennan (2018) observed that provision of access to valuable information resources, reference and information literacy services, and managing institutional research outputs through institutional repositories are also services rendered by librarians that support research in universities.

Furthermore, Xue (2016) observed that research support services in many universities focus on literature resources support and management of research data, where the former relate to the provision of research databases and the latter focusing on different aspect of data management, including data analysis. However, studies (Okuonghae & Ogiamien 2016; Adeniran & Unuoha, 2018; and Udem & Anaehobi, 2020) have shown that information literacy constructs such as knowing when information is needed, and effectively using needed information are important variables in the delivery of library services such as granting researchers the needed support for the success of their research.

Adeniran and Unuoha (2018) emphasized that the ability of librarians to know the information need of researchers helps the librarian to support researchers better and recommend only relevant sources to them. This knowledge put the librarian in good position to make sound recommendations with respect to how the research should be tackled. Also, librarian`s ability to use needed information is crucial in the delivery of research support services, especially since their use of information directly influence the quality of support they render to researchers. However, Adomi (2015) and Oduwole and Sowole (2016) identified poor information search and use skills among librarians and researchers, internet accessibility challenge amongst others as factors affecting librarians ability to use information. Regardless of these factors, it remains unclear the influence of information literacy constructs (knowledge of information need and use of needed information) on research support services delivery. In addition, there seems to be lack of substantial literature that supports the relationship that exists among the variables. This study therefore investigated the correlates of research support services delivery in university libraries in South-south, Nigeria, with specific reference to librarians` knowledge of information need and use of needed information.

PROBLEM STATEMENT
Universities globally are primarily concerned with teaching, learning and research. This is why university libraries, being a subset of the University offer research support services with the aim of promoting quality research in the institution so as solve problems and foster institutional visibility. These research support services range from assistance in gathering relevant literature for a research study to research publishing and citation tracking. In fact, many

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university libraries in the global north and global south offer research support services across the research lifecycle. However, despite the benefit associated with the delivery of research support services, observation and preliminary investigation suggest a poor delivery of research support services in many university libraries. This could however be as a result of several factors such as the librarians' knowledge of their information need and their ability to use needed information. These factors which constitute the constructs of Information Literacy skills are vital in the delivery of research support services in libraries, hence, there is need to examine the relationship that exist among each of the factors and research support services delivery. It is on this note that this study investigated the correlates of research support services delivery in university libraries in South-south Nigeria.

OBJECTIVES

The overall objective of this study was to investigate the correlates of research support services delivery in libraries. Specifically, the study sought to:

1. determine the relationship between librarians' knowledge of their information need and research support services delivery in university libraries in South-south, Nigeria;
2. find out the relationship between librarians' ability to use needed information and research support services delivery in the universities
3. find out the joint relationship among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in the universities.

RESEARCH QUESTIONS

In order to successfully conduct the study, some specific research questions were generated to guide the study. They include:

1. What is the relationship between librarians' knowledge of their information needs and research support services delivery in university libraries in South-south, Nigeria?
2. What is the relationship between librarians' ability to use needed information and research support services delivery in the libraries?
3. What is the relationship among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in the libraries.

HYPOTHESES

Null hypothetical statements were also tested in the study at 0.05 level of significance. The statements included:

H_{o1}: There is no significant relationship between librarians' score on knowledge of their information needs and research support services delivery in university libraries in South-south, Nigeria.

H_{O2}: There is no significant relationship between librarians' score on ability to use needed information and research support services delivery in the libraries.

H_{O3}: There is no joint significant relationship among librarians' scores on knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in the libraries.

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LITERATURE REVIEW

Information literacy skill is considered an important skill that should be possessed by individuals in the 21st century as it enables one to be independent lifelong learner (ACRL, 2017). The notion of information literacy demonstrates that an information literate person will be able to know exactly what information he needs, how to get the information as well as how to effectively use the information (Udem & Anaehobi, 2020). Other interesting component of the concept is the ability for one to access information in different formats (print and non-print) and different databases using appropriate search term and techniques. Consequently, in undertaking research, researchers need to develop all components of information literacy so as to be able to successfully solve a research problem and contribute to existing body of knowledge. This is why the Madison College Libraries (2020) identified information literacy components as an important skill to be developed by students at different levels of education. For examples, the knowledge of information needs helps students to know what gap they want to fill and then point them to the right place to fill the gap. Bolek (2018) opined that in order for librarians to help users solve their problems, they must understand the need of the users so as to proffer appropriate solution. Part of understanding the user`s needs is knowing when they need the information, why they need the information, and what information they really need. This therefore emphasizes the importance of the first construct of information literacy; knowledge of information needs (Adeniran & Unuoha, 2018).

Nevertheless, ACRL (2006) opined that excess information could become a barrier to the effective use of needed information. Librarians, researchers and library users need unique set of competencies to effectively deal with the challenges of the contemporary information society which is characterized by information explosion due to the advances in Information and Communication Technologies (ICT). Information resources are now being published in millions around the globe, thus making it increasing challenging for users to be able to retrieve relevant information from a vast amount of information currently in circulation. This is why Nkiko and Ilogho (2014) noted that the ICT age has presented an opportunity for librarians, as information literate experts, to positively affect their world by using their expertise to make access to relevant and accurate information more easily. This is only obtainable when the librarians possess the needed information literacy skills such as knowing when users need information, what type of information a user needs, what is the most appropriate source the users should consult to access the information, how to access the information amongst others. Gui and Argentin (2017) noted that librarians ability to use needed information effectively will enhance the delivery of research support services such as helping researchers to build their research metric skills, data curation, citation count, research visibility, funding information, information search and retrieval technique training etc. However, Ramson (2018) noted that services delivery will be unsuccessful if librarians do not possess the requisite information literacy competencies which typically include knowing how to search, retrieve, evaluate and use information.

According to Dadzie (2017), the delivery of research support services in libraries is hinged on the competency of the librarians in charge. This is because librarians need to be skilled in getting information needed to complete a research study. Dijk and Deursen (2019) observed that among the information needed to support researchers is information on funding, data management, data analysis, literature review and synthesis, research publishing, citation tracking

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amongst others. Thus, it is imperative for librarians to be information literate so as to be better positioned to support researchers at every point of the research process. In addition, Adebayo (2020) noted that researchers are always in need of support in the area of data, whether it is the collection, use and management of data. This therefore reinforces the need for the delivery of research support services in libraries, particularly university libraries.

METHODOLOGY

The study examined the correlate of research support service delivery in Universities in Nigeria using the descriptive correlational research design. The study's population comprised 301 librarians from different university libraries in South-south Nigeria. The population also forms the sample size for the study as it is within manageable range; hence, the total enumerative sampling technique was adopted. Furthermore, the study employed a combination of a competency test and a checklist to retrieve data from the respondents. The instrument was validated by Professors in the Departments of Library and Information Science and Educational Measurement at Nnamdi Azikiwe University, Awka, Nigeria. The Cronbach's Alpha method was used to determine the internal consistency of the instrument and it yielded an acceptable reliability coefficient of 0.87 each for the two independent variables and 0.77 for the dependent variable. The instrument was thereafter administered directly to the respondents by the researcher through the help of research assistants. Data collected were then analysed using inferential statistics. All statistical analysis were carried out using the Statistical Package for Social Science (SPSS Version 25)

PRESENTATION OF RESULTS

This section presents the result of the study according to the study`s response rate, research questions asked and stated hypotheses.

Table 1: Questionnaire Response

Copies of Questionnaire Administered	Copies of Questionnaire Returned	Percentage of Questionnaire Returned
301	251	83%

Out of 301 copies of questionnaire administered, 251 copies were retrieved and found useful resulting to a response rate of 83%. This response rate is considered adequate for the study as it is in line with Okuonghae, Igbinovia and Adebayo (2022).

Section 4.2: Answering of the Research Questions
Research Question 1: What is the relationship between librarians' knowledge of their information needs and research support services delivery in university libraries in South-south, Nigeria?

Table 2: Pearson r on Librarians' Knowledge of their Information Needs and Research Support Services Delivery

Source of Variation	N	Librarians' knowledge of their information needs	Research support services delivery	Remarks
Librarians' knowledge of their information needs	251	1	.186	
				Low Positive Relationship
Research support services delivery	251	.186	1	

Table 2 shows a low positive relationship of r= .186 (19%) existing between librarians' knowledge of their information needs and research support services delivery in university libraries in South-south, Nigeria. The implication of this is that even though relationship exists between librarians' knowledge of their information needs and research support services delivery, the relationship that exists between them is low.

Research Question 2: What is the relationship between librarians' ability to use needed information and research support services delivery in the libraries?

Table 3: Pearson r on Librarians' Ability to Use Needed Information and Research Support Services Delivery

Source of Variation	N	Librarians' ability to use needed information	Research support services delivery	Remarks
Librarians' ability to use needed information	251	1	.123	
				Low Positive Relationship
Research support services delivery	251	.123	1	

Table 3 shows a relationship (r= .123 (12%)) existing between librarians' ability to use needed information and research support services delivery in university libraries in South-south, Nigeria. With r= .123, it therefore implies that a low positive relationship exists between librarians' ability to use needed information and research support services delivery in university libraries in South-south, Nigeria.

Research Question 3: What is the relationship among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in the libraries?

Table 4: Pearson r on Librarians' Knowledge of Information Need, Ability to Access Information, Evaluate Information, Use Information and Research Support Services Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.270[a]	.073	.058	.20275

Table 4 indicated a low level of prediction of r= .270 (27%) existing relationship among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery. The coefficient of determination R^2 = .073 implies that 7% of the independent variables (Librarians' knowledge of information need, ability to access information, evaluate information and use information) is the proportion of variation accounted for by the regression model. Thus, it implies that a low level relationship exist among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery.

Section 4.3: Testing of the Research Hypotheses

H_{o1}: There is no significant relationship between librarians' score on knowledge of their information needs and research support services delivery in the libraries.

Table 5: Significant Correlation between Librarians' librarians' score on knowledge of their information needs and Research Support Services Delivery

Source of Variation	N	Librarians' knowledge of their information needs	Research support services delivery	df	P value	Remarks
Librarians' knowledge of their information needs	251	1	.186			
				249	.003	Sig.
Research support services delivery	251	.186	1			

From Table 5, the result of the correlation indicated 19% of the variance (r = .186, df= 249, p= .003) which is a low positive correlation. Therefore the remaining 81% may be as a result of chance or other variables not accounted for in this study. The null hypothesis is therefore rejected implying that there is a significant relationship between librarians' score on knowledge of their information needs and research support services delivery in university libraries in South-south, Nigeria. This implies that increase in the librarians' knowledge of their information needs may lead to a corresponding increase in their research support services delivery and vice versa.

H_{O2}: There is no significant relationship between librarians' score on ability to use needed information and research support services delivery in the libraries.

Table 6: Significant Correlation between Librarians' librarians' score on ability to use needed information and Research Support Services Delivery

Source of Variation	N	Librarians' ability to use needed information	Research support services delivery	df	P value	Remarks
Librarians' ability to use needed information	251	1	.123			
				249	.051	Sig.
Research support services delivery	251	.123	1			

From Table 6, the result of the correlation indicated 12% of the variance (r = .123, df= 249, p= .051) which is a low positive correlation. Therefore the remaining 88% may be as a result of chance or other variables not accounted for in this study. The null hypothesis is therefore rejected implying that there is a significant relationship between librarians' score on ability to use needed information and research support services delivery in university libraries in South-south, Nigeria. This implies that increase/decrease in the librarians' ability to use needed information may lead to a corresponding increase/decrease in their research support services delivery.

H_{O3}: There is no joint significant relationship among librarians' scores on knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in the libraries

Table 7: Significant Correlation among Librarians' Knowledge of Information Need, Ability to Access Information, Evaluate Information, Use Information and Research Support Services Delivery

Model	Sum of Squares	df	Mean Square	R^2	F	Sig.
1 Regression	.796	4	.199		4.841	.001[b]
Residual	10.113	246	.041	.073		
Total	10.909	250				

From Table 7, the result of the regression indicated the four predictors explained 7% of the variance (R^2 = .073, F(4,246) = 4.841, p= 0.001). All four variables added significantly to the prediction, $P < 0.05$. The null hypothesis is therefore rejected implying that there is a joint significant relationship among librarians' scores on knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in university libraries in South-south, Nigeria.

DISCUSSION OF RESULT

The result presents a low relationship between librarians' knowledge of their information needs and research support services delivery. The implication of this is that, the ability of librarians to know when information is needed could affect their service delivery with respect to

research. It is therefore important for librarians to be skilled in identifying information needs. This supports the assertion of Bothma (2014) that information literate librarians are able to support researchers at every point of the research process, including in the area of problem identification, sourcing for relevant materials for research study, management of research data, publishing, ensuring research visibility, developing authors` online research profile, and citation tracking. Therefore, librarians' role in supporting researchers begins with the knowledge of researcher`s information needs so as to know how to help the researcher.

Moreover, the study showed a low positive relationship exists between librarians' ability to use needed information and research support services delivery in the libraries understudy. This is supported by the view of Adebayo (2020) that the way information is used determines the level of satisfaction the beneficiary will receive. Hence, indicating that a relationship exists between usage of information and the delivery of research support services. The finding from this study is in agreement with Salaam and Adegbore (2020) that the effective usage of information by librarians will among other things, help librarians to effectively support researchers in their research activities.

Furthermore, a closer look at the relationship that exist among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in the libraries, shows that a low level relationship exist among Librarians' knowledge of information need, ability to access information, evaluate information, use information and research support services delivery. This explains the interconnectedness between information literacy skills and research support services delivery in a dynamic information society. This finding is in tandem with Horton (2018) that information literacy skill is an important skill for librarians as it enables them to effectively discharge their duties, especially with respect to research support services. In addition, the study revealed that a significant relationship exists between librarians' score on knowledge of their information needs and research support services delivery in the university libraries. This revelation is in conformity with Borrego and Anglada (2018) that the first step to supporting researchers is knowing what information they need. Thus, knowledge of information need is useful in the delivery of research support services.

More so, the study revealed that a significant relationship exists between librarians' score on ability to use needed information and research support services delivery in university libraries in South-south, Nigeria. This shows that the ability to use needed information puts librarians in good shape to support researchers. In fact, Anunobi and Udem (2014) affirmed that, the ability to use needed information, being a construct of information literacy, is vital in the discharge of library services. Thus, supporting the findings from this study.

Finally, the study showed that a joint significant relationship exist among librarians' scores on knowledge of information need, ability to access information, evaluate information, use information and research support services delivery in university libraries in South-south, Nigeria. This finding is in conformity with Afzal, Corral, and Kennan (2018) that information literacy skills variables play a major role in the delivery of information services in this era due to the complexities in information sources.

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CONCLUSION

The current state of information society makes it important for librarians and indeed all library users to be information literate in order to effectively use information for planning and decision making. Information literacy skills such as ability to know when information is needed and ability to use needed information are considered vital skills for researchers and librarians in the Fourth Industrial Revolution. The importance of these skills is evident in the findings from this study as it can influence the success of a research process and also the quality of support to be enjoyed by researchers. It is therefore important for librarians and library users to consciously develop this skill so they can be competent lifelong learners even in the midst of changing information technologies.

RECOMMENDATION

Given the findings from this study, it is therefore recommended that:
1. Information literacy skills curriculum should be introduced into undergraduate and postgraduate programmes so that the researchers can be groomed into being independent lifelong learners.
2. Librarians should as a matter of priority develop their information literacy skills as they are important in the discharge of library duties.
3. Library associations and library administrators should make conscious effort to help develop the information literacy skills of both professional and para-professional staff in the library by organizing and sponsoring periodic training and workshop aimed at improving the information literacy skills of staff.

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