Influence of Library Resources and Services on Research Activities Among Postgraduate Students of Southwest Federal Universities, Nigeria

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Abstract: Library resources and services are essential in postgraduate studies to conduct successful research, demonstrate academic scholarship and gain recognition for creative thinking. Hence, this study evaluated the influence of library resources and services on research activities among postgraduate students' in southwest Federal Universities, Nigeria. A study research design was adopted for the survey. However, a multi-stage sampling procedure was applied to select 378 respondents for the study. Data were assembled with the use of a designed questionnaire on library resources and services influencing postgraduate research activities. Standard deviation, mean, frequency counts and percentages were used to analyse the data. Results reveal that textbooks ($\bar{x} = 2.96$), World Wide Web ($\bar{x} = 2.80$) and e-books ($\bar{x} = 2.76$), ($\bar{x} = 3.12$), books ($\bar{x} = 3.61$) and e-books ($\bar{x} = 3.35$) were the major resources that enhanced postgraduate students research activities by the respondents. Also, reference ($\bar{x} = 2.85$) and Wi-Fi services ($\bar{x} = 2.75$) Wi-Fi services ($\bar{x} = 3.17$), referral services ($\bar{x} = 3.16$) and user education ($\bar{x} = 3.10$), were library services that promote postgraduate students research activities. Findings further revealed that books ($\bar{x} = 2.72$), e-journals ($\bar{x} = 2.68$), print journals ($\bar{x} = 2.65$) internet ($\bar{x} = 2.61$), reference services ($\bar{x} = 2.65$) and reprographic services ($\bar{x} = 2.37$) were the most influencing library services among postgraduate students. The study concluded that the library provides resources and services that influence the research activities of postgraduate students. However, the use of library resources and services is crucial in postgraduate studies to achieve their academic objectives. The study, therefore recommended that provision and preservation of library resources should be given more attention in the universities, while library services should be improved upon for better service delivery. In addition, the library should make enough internet access points available for students.

Keywords: Influence, Library Resources, Library Services, Research Activities, Postgraduate Students', Southwest, Nigeria

1. Introduction

Research is a crucial activity in universities and is central to postgraduate training. Research activities form the basis for the realisation of national development goals. Generally, quality of education is critical in providing the needed foundation for the knowledge economy for any country. Research credibility and capability are among the standards by which libraries gain acceptance as reputable members of the global intellectual community. Such research includes the ones carried out by postgraduate students. Hence, postgraduate research constitutes a vital component of library effort and contributes significantly to the institution's

research profile. Postgraduate students' researches are a form of apprenticeship taken under the supervision of lecturers. Research enables postgraduate students to systematically investigate society's challenges and proffer solutions to them. It is through research that postgraduate students can contribute to knowledge.

Library serves as the storehouse of intellectual knowledge of the society and manages them in a manner that postgraduate students can have access to them. Postgraduate students need access to different types and formats of library resources, including textbooks, journals, indexes, abstracts, newspapers, magazines, reports, CD-ROM databases, internet, email, videotapes/cassettes, computers and microforms. Also, electronic resources like usable computers, photocopying machines, microforms, microform readers, fax machines, internet, local area network, radio messages, telephone and lighting.

These resources available in the university libraries must be capable of supporting the research activities of postgraduate students. The library needs to provide postgraduate students with important library resources such as online journals, user-friendly Online Public Access Catalogue (OPAC), well organised and easy to access. There is a need for libraries to understand the resources that facilitate the research activities of postgraduate students, ongoing updates on new information resources, maintaining research repositories and provision of database training sessions [16]. These resources are needed for varieties of purposes and their uses depend on their availability. For centuries, libraries have been the source of keeping and disseminating information through books, journals, maps and other resources that are used by students in the universities. It is clear that library resources i.e., human resources, physical resources, printed and e-resources are essentially important in preparing postgraduate students to conduct their researches [6].

However, the use of library resources is a crucial recurring theme in the literature. The more accessible library resources are, the more likely they are to be utilised. Postgraduate students tend to use library resources that require the least effort to access [12]. Understanding library use would aid the planning of future services but will also encourage patronage among postgraduate students and researchers. Postgraduate Students will make more use of the library if they have access to library resources.

Library services are rendered to meet the information needs of users in the library. Libraries are the storehouse of knowledge where services like internet service, current awareness service, selective dissemination of information, reprographic service, bindery services, indexing and abstracting service, word processing and circulation of library information resources are rendered to users. However, in other to provide effective information services to enhance teaching, learning and research, it must endeavour to have adequate information resources. Resources are the materials that libraries acquire, catalogue, stock, and make available to their users, as well as use to provide various other services [4].

However, the library renders numerous services to users,

addressing their diverse needs, characteristics, and interest [29]. Several library services have been identified as aiming at facilitating the research activities of postgraduate students, the most commonly provided services include inter-library loan, indexing and abstract service, current awareness, micro text, library tour, library instructions, book selection for the general library collection, theses, dissertation, lending services, reservation, advisory services, literature searches, photocopying, document delivery and circulation services are one of the most vital services rendered by libraries in Nigeria to the users. These services are being rendered for the teeming population of users which constitute postgraduate students, lecturers and other potential users at large who are outside the academic environment such as the immediate community's members where the library is situated. The library renders these services by way of providing information resources that can cater for the needs of postgraduate students and lecturers [29].

1.1. Statement of the Problem

Library resources and services are provided to enhance students' research activities. Thus they are expected to use the library as their main source of information to support research activities. However, observations reveal that postgraduate students are not using library resources and services. In addition, during seminar presentations, postgraduate students are unable to provide adequate literature in support of their research works. It was assumed that postgraduate students could be experiencing problems in accessing the utilisation of library resources and services that are available.

1.2. Objectives of the Study

1) distinguish the library resources that enhance postgraduate students' research in Southwest Federal Universities, Nigeria;
2) ascertain the library services that encourage postgraduate students' research in Southwest Federal Universities, Southwest, Nigeria;
3) examine library resources and services that influence the research activities of postgraduate students;

2. Literature Review

The philosophy of the library is based on the idea of the provision of relevant materials as library resources for users. To this end, librarians continue to struggle to collect and organise printed and other forms of recorded knowledge to satisfy both present and future users [2]. The library as an entity improves the quality of life and reveals the country's rich scientific and cultural heritage in multiple forms. It acts as an intellectual motivation for the development of society and to acquire information and education as well as recreation [21].

Library resources are materials that users utilise in making decisions and also for problem-solving. These sources could

be primary or secondary. In other words, library sources are sources that users make use of from time to time to meet their information needs. However, Ubogu asserted that library users are expected to locate the resources they want in a digital form and accessible electronically and are beginning to demand a one-stop shopping in an integrated information environment [28].

Library resources available in the universities library, archives, records offices, documentation centres, and data centres) must be capable of supporting research activities [23] The redirection from print to electronic information means that both academic staff and students in a university system must use these resources for better quality, efficient, and effective research activities [5] and [13] conducted a study at Cape Peninsula University of Technology (CPUT) in Cape Town. The study aimed to find out the perception of the researchers towards the library in their research, what they expect and how their research expectations are met.

The study started with an in-depth interview with the Manager of the Research Information Support Centre (RISC) followed by a questionnaire survey e-mailed to 602 academic staff who doubled as researchers. The findings of the study suggest that academic libraries need to provide postgraduate students with other important library resources such as online journals, user-friendly Online Public Access Catalogue (OPAC), well organised and easy access to library materials. Perhaps there is a need for academic libraries to understand the resources that facilitate the research activities of postgraduate students, ongoing updates on new information resources, maintaining research repositories and provision of database training sessions.

However, libraries are service-oriented organisations established for the provision of relevant information resources and quality services to meet their user's information needs. Users are described as the reason for the existence of the library. Meeting the information needs of users requires the provision of the actual information resources and services that will satisfy the needs of users. Idiegbeyan-ose, and Esse and Ikolo, stated several factors that can influence user's satisfaction; these factors include responsiveness, competence and assurances, tangibles and resources. Implored librarians to make maximum efforts to ensure that their library users derived the best possible benefits from the services they render [14, 15]. Materials are to be provided by libraries to support the learning, teaching and research processes and to provide assistance to users. In addition, Adeniran argued that providing quality services in academic libraries is now a major issue among academic librarians; they see the library more in terms of the provision of and access to service quality than as just a physical place. Technology and automation have also changed the way people perceive libraries [3].

Several library services have been identified as aiming at facilitating the research activities of postgraduate students. Brown and Swan conducted a study of researchers' use of the library in the UK [9]. Using quantitative and qualitative methods of a survey, focus group discussion and interviews

with 2,250 researchers and 300 librarians, their study revealed that Internet services such as Wi-Fi, electronic information services such as e-journals were very important in the promotion of research culture. However, the e-resources provide fast and reliable, up-to-date kinds of literature, which are less expensive and save time more than print materials [21]. Also, e-resources are easily accessible in remote areas [18] consequently; the e-resources are integrated with teaching, learning research and training for excellence. Mwantimwa noted that the use of e-resources enhances communication, career development, teaching and research in addition to providing subject-specific and updated information [21]. Similarly, Singh noted that access to e-resources raises awareness on the current research gaps, helps in the preparation of examinations and keeps the postgraduate students and researchers up-to-date in their respective disciplines [26].

Library services and use had a direct influence on research activities in a university setup. This was noted by Onuoha, Ikonne and Madukoma when they investigated the impact of library use on research productivity at Babcock University, Nigeria. Using a survey research method with self-designed questionnaires the study revealed that all the postgraduate students who participated in this study indicated having used the library [24]. It suggested that the provision of printed resources was ranked as the most important library service for postgraduate students, followed by Internet and electronic journals. Furthermore, the respondents indicated their appreciation for the assistance of library staff. Despite the provision of Internet services by the university, the respondents lamented the instability of the Internet services and therefore recommended a more stable Internet service in the library. In addition, respondents also recommended the provision of current materials in the library and the provision of research consultancy.

Duy and Larivière submitted that academic library services include document delivery, interlibrary loan transactions, the number of persons served in presentations, the number of presentations, public document service, current periodical, micro text and newspapers, library tour, library instructions, book selection for the general library collection and Processing of theses dissertation [11]. The major objective of the academic libraries is to serve users for meeting their best academic commitments. They are the channel for academics to impart education through means of teaching, learning and research [10]. Academic library services in the modern world are focusing more on the area of digital, virtual or libraries without borders all of which have transformed academic libraries and led to transition and transformation in the academic library environment [1].

Libraries have been providing short-range and long-range reference services from the documentary sources in their collection to meet the information requirement of their users. In addition, users' needs are not met through the in-house documentary collection and may be met by referring them to the resources of other libraries. This is called a referral service. Referral service, therefore, directs or refers the user

to a source of information, which may be a document, an individual or even an organisation. It is a process of linking a user with a need with a service or person who is likely to meet the need of the enquirer. It seems difficult to refer to another more appropriate source, such as a specialised library, a librarian, or any other expert. It is incumbent on the referring library/librarian to posse's detailed knowledge of the resources with a reasonable chance of success.

In addition, library services is germane to librarians in their quest to support research, the case may not be the same with users, especially postgraduate students. According to [19] the physical library serves to provide access to technology, instruction to library use, a place to study among other things. Tella, Tela, Ayeni, and Omoba revealed that students were satisfied with the library collections and services but not with electronic resources due to a lack of internet services [27]. The improvement of library services depends on the satisfaction level of users with the relevant collections, user-centric library services and library staffs' supportive attitude [8].

3. Research Method

A survey research design was used for the study. This involved the collection of data using a questionnaire. The population of the study comprised postgraduate students in Southwest Federal Universities, Nigeria. There are six Southwest Federal Universities in Nigeria. Four of which are conventional while the other two are specialised. A multi-stage sampling technique was used to select respondents for the study. The first stage in the sampling technique was a purposive selection in Southwest Federal Universities, Nigeria. The second stage was the use of the Krejcie and Morgan table to determine the sample size. The sample size

is 378 of 34,131 population and the final stage was a simple random sampling technique to select postgraduate students in Southwest Federal Universities, Nigeria. For analysis of data collected in the study. Results were analysed using descriptive and inferential tools. Descriptive statistics tools such as frequency count, mean and standard deviation presented in tables were used to describe the demographic information and also answer the research questions.

4. Data Analysis

***Table 1.** Demographic information.*

Frequency distribution of respondents by gender		
Gender	Frequency	Percentage
Male	175	48.5
Female	186	51.5
Total	361	100
Frequency distribution of respondents by marital status		
Marital status	Frequency	Percentage
Single	230	67.7
Married	131	36.3
Total	361	100

Table 1: shows the demographic information of respondents of the study, namely gender and marital status. The table reveals that 175 (48.5%) of the respondents are males and 186 (51.5%) are females among the respondents of this study. The table also shows that 230 (67.7%) of the respondents are singles and 131 (36.3%) are married. The results on demographic information of postgraduate students that are studied showed that there were more females than their male counterparts.

Research question one: Library resources that enhance postgraduate students' research activities in the Federal Universities in Southwest, Nigeria.

***Table 2.** Library resources that enhance postgraduate students' research activities.*

S/N	Library resources	A	NA	NS	$\bar{x}$	S. D
1	Books	352 (97.5%)	4 (1.1%)	5 (1.4%)	2.96	0.25
2	World Wide Web	320 (88.6%)	10 (2.8%)	31 (8.6%)	2.80	0.57
3	E-Books (Electronic Resources)	309 (85.6%)	17 (4.7%)	35 (9.7%)	2.76	0.61
4	Periodicals (Journals, Newspapers, Reports and Magazines)	308 (85.3%)	19 (5.3%)	34 (9.4%)	2.76	0.61
5	Search engines	302 (83.7%)	19 (5.3%)	40 (11.1%)	2.73	0.64
6	Government Publications	293 (81.2%)	24 (6.6%)	44 (12.2%)	2.69	0.67
7	Online Catalogue	292 (80.9%)	19 (5.3%)	50 (13.9%)	2.67	0.70
8	Indexes	289 (80.1%)	22 (6.1%)	50 (13.9%)	2.66	0.70
9	Online indexes	277 (76.7%)	28 (7.8%)	56 (15.5%)	2.61	0.74
10	Electronic Databases (Hinari, Agora, Ebschost, Science direct	276 (76.5%)	28 (7.8%)	57 (15.8%)	2.61	0.74
11	Computers files	273 (75.6%)	28 (7.8%)	60 (16.6%)	2.59	0.75
12	Reserve Books and Videos	250 (69.3%)	30 (8.3%)	81 (22.4%)	2.47	0.83
13	CD-ROMs	234 (64.8%)	45 (12.5%)	82 (22.7%)	2.42	0.83
14	Microform.	110 (30.5%)	52 (14.4%)	199 (55.1%)	1.75	0.89
15	Brain Fuse	94 (26.0%)	61 (16.9%)	206 (57.1%)	1.69	0.85
Weighted Mean = 2.55						

The result presented in Table 2 showed that a four-point Likert scale classified into available, not available and not sure were used to elicit information from the respondents. Textbooks ($\bar{x}$ =2.96) was ranked highest by the mean score as the major library resources available to support

postgraduate students' research activities and was followed by World Wide Web ($\bar{x}$ =2.80) and E-Books (Electronic Resources) ($\bar{x}$ =2.76). Brain Fuse ($\bar{x}$ =1.69) was the least item indicated by the respondents.

Research question two: Library services that encourage

postgraduate students' research activities in the Federal   Universities in Southwest, Nigeria.

Table 3. Library services that promote postgraduate students' research activities.

S/N	Library services	A	NA	NS	$\bar{x}$	S. D
1	Literature search	329 (91.1%)	11 (3.0%)	21 (5.8%)	2.85	0.49
2	Reference services	333 (92.2%)	3 (0.8%)	25 (6.9%)	2.85	0.51
3	WIFI services	300 (83.1%)	31 (8.6%)	30 (8.3%)	2.75	0.59
4	Online research services	294 (81.4%)	19 (5.3%)	48 (13.3%)	2.68	0.69
5	Lending services	293 (81.2%)	14 (3.9%)	54 (15.0%)	2.66	0.72
6	Reservation service	280 (77.6%)	20 (5.5%)	61 (16.9%)	2.61	0.76
7	User Education	283 (78.4%)	13 (3.6%)	65 (18.0%)	2.60	0.77
8	Referral services	276 (76.5%)	18 (5.0%)	67 (18.6%)	2.58	0.79
9	Multimedia service	274 (75.9%)	21 (5.8%)	66 (18.3%)	2.58	0.78
10	Indexing and abstracting services	272 (75.3%)	24 (6.6%)	65 (18.0%)	2.57	0.77
11	Bindery	257 (71.2%)	32 (8.9%)	72 (19.9%)	2.51	0.80
12	Current awareness	253 (70.1%)	27 (7.5%)	81 (22.4%)	2.48	0.83
13	Exhibition and displays	250 (69.3%)	28 (7.8%)	83 (23.0%)	2.46	0.84
14	Electronic document delivery	239 (66.2%)	35 (9.7%)	87 (24.1%)	2.42	0.85
15	Selective Dissemination of Information	232 (64.3%)	30 (8.3%)	99 (27.4%)	2.37	0.88
16	Reprographic services	233 (64.5%)	30 (8.3%)	98 (27.1%)	2.37	0.88
17	CD/DVD-based search service	224 (62.0%)	39 (10.8%)	98 (27.1%)	2.35	0.87
18	Inter-library loan	214 (59.3%)	40 (11.1%)	107 (29.6%)	2.30	0.89
19	Translation services	194 (53.7%)	41 (11.4%)	126 (34.9%)	2.19	0.92
Weighted Mean = 2.54						

The result is presented in Table 3. The findings from the respondents revealed that literature search ($\bar{x}$ =2.85) was ranked highest as the main library services available to support postgraduate students' research activities, this was followed by reference services ($\bar{x}$ =2.85) and WIFI services ($\bar{x}$ =2.75). The least service indicated was Translation services ($\bar{x}$ =2.19).

Research Question Four: Library resources that influence the research activities of postgraduate students in Federal Universities in Southwest, Nigeria.

Table 4. Influence of the use of library resources on research activities of postgraduate students of Federal Universities in Southwest, Nigeria.

S/N	Influence of use of library resources	HI	MI	LI	$\bar{x}$	S. D
1	Books	270 74.8%	81 22.4%	10 2.8%	2.72	0.50
2	E-Journals	256 70.9%	93 25.8%	12 3.3%	2.68	0.53
3	Print Journals	243 67.3%	110 30.5%	8 2.2%	2.65	0.52
4	Online database	254 70.4%	88 24.4%	19 5.3%	2.65	0.57
5	Dictionaries	211 58.4%	135 37.4%	15 4.2%	2.54	0.57
6	Encyclopaedia	184 51.0%	154 42.7%	23 6.4%	2.45	0.61
7	Indexes and abstract	180 49.9%	133 36.8%	48 13.3%	2.37	0.70
8	Bibliographies	171 47.4%	141 39.1%	49 13.6%	2.34	0.71
9	CD ROM Database	137 38.0%	144 39.9%	80 22.2%	2.16	0.76
Weighted Mean = 2.51						

The result reported in Table 4 shows that books ($\bar{x} = 2.72$) ranked highest by the mean score rating and was followed in succession by e-journals ($\bar{x} = 2.68$) and print journals ($\bar{x} = 2.65$). The least item indicated by the respondents was CD ROM Database ($\bar{x} = 2.16$).

Research question Five: library services that influence research activities of postgraduate students in Federal Universities in Southwest, Nigeria.

Table 5. Influence of the use of library services on research activities of postgraduate students of Federal Universities in Southwest, Nigeria.

S/N	Influence of the use of library services	HI	MI	LI	$\bar{x}$	S. D
1	Internet Services	254 70.4%	71 19.7%	36 10.0%	2.60	0.66
2	Reference services	198 54.8%	128 35.5%	35 9.7%	2.45	0.66
3	Reprographic services	175 48.5%	141 39.1%	45 12.5%	2.36	0.69

S/N	Influence of the use of library services	HI	MI	LI	$\bar{x}$	S. D
4	Borrowing/Loaning of materials	164 45.4%	155 42.9%	42 11.6%	2.34	0.67
5	Current Awareness Service	158 43.8%	161 44.6%	42 11.6%	2.32	0.67
6	Indexing and Abstracting services	167 46.3%	143 39.6%	51 14.1%	2.32	0.70
7	Selective dissemination of information	162 44.9%	144 39.9%	55 15.2%	2.30	0.71
8	OPAC/Web OPAC service	143 39.6%	144 39.9%	74 20.5%	2.19	0.75
9	Referral/Inter-library loan	129 35.7%	166 46.0%	66 18.3%	2.17	0.71
Weighted Mean = 2.34						

The result reveals that Internet Services $(\bar{x} = 2.61)$ ranked highest by the mean score rating and was followed in succession by Reference services $(\bar{x} = 2.45)$, Reprographic services $(\bar{x} = 2.37)$, Borrowing/Loaning of materials $(\bar{x} = 2.34)$, indexes and abstract $(\bar{x} = 2.33)$, Current Awareness Service $(\bar{x} = 2.33)$, Selective Dissemination of information $(\bar{x} = 2.30)$, OPAC/Web OPAC service $(\bar{x} = 2.19)$ and Referral/Interlibrary loan $(\bar{x} = 2.18)$ respectively.

5. Discussion of Findings

The result of findings on demographic information of respondents of Federal Universities in Southwest, Nigeria shows that 175 (48.5%) of the respondents are males and 186 (51.5%) are females among the respondents of this study. The table also shows that 230 (67.7%) of the respondents are singles and 131 (36.3%) are married. The results on demographic information of postgraduate students that are studied showed that there were more females than their male counterparts.

The result of the findings on the library resources that support postgraduate students research activities in federal universities in Southwest, Nigeria revealed that Books, World Wide Web, E-Books (Electronic Resources), Periodicals (Journals, Newspapers, Reports and Magazines), Search engines, Government Publications, Online Catalog, Indexes, Online indexes, Electronic Databases (Hinari, Agora, Ebschost, Science direct, and Computers files are the major library resources that support postgraduate students' research activities. Textbooks were ranked higher and above the weighted mean of 2.55. In measuring institutions' excellence and quality, the library resources of the institution should be considered as a good yardstick. The ability of the library to support teaching, learning and research largely depends on the resources at its disposal. From the focus group discussion among the postgraduate students, it was also found that the library resources available to support their research activities were textbooks, Journals, E-books and the internet.

These findings agreed with [25] who asserted that library resources that are both in printed and electronic formats are mostly available as textbooks, journals, indexes, abstracts, newspapers and magazines, reports, CD-ROM databases, the Internet/E-mail, videotapes/cassettes, diskettes magnetic disk, computers, microforms and so on. In addition, [23] further affirmed that library resources such as textbooks, journals and e-books available in the university libraries, archives, records offices, documentation centres, and data centres are meant to support research activities.

The result of the findings on the library services that support postgraduate students research activities in federal universities in Southwest, Nigeria shows from the result using the weighted mean of 2.54 as the benchmark and from the ranking of library services revealed that literature search, reference services, WIFI services, "Online research and lending services are the major library services that support postgraduate students' research activities. This was because these were the items that ranked above the weighted mean of 2.54. In addition, the findings from the focus group discussion among postgraduate students, on the library services available to enhance their research activities show that services such as WIFI services, referral services, user education and reference service are the ones available.

This finding corroborates that of [22] who asserted that services provided by the libraries boost self-development, organisational developments as well as national development, library services of all kinds are catalysts for learning. Library services provided is of great interest to universities because of the importance of the high quality of their productivities. This study also agrees with [3] who argued that providing quality services in academic libraries is now a major issue among academic librarians; they see the library more in terms of the provision of and access to service quality than as just a physical place. Technology and automation have also changed the way people perceived libraries.

The result of the findings on the library resources that influence research activities of postgraduate students of federal universities in Southwest, Nigeria, shows that the majority of the respondents indicated that books, e-journals, online databases and print journals were the library resources that influence research activities of postgraduate students most. The findings from the focus group discussion also showed that books, e-journals, print journals, online database and dictionaries are the major resource that influences the research activities of postgraduate students.

This finding aligns with that of [20] who confirmed that the information resources available in institutional information systems must be capable of supporting research activities

among postgraduate students. The use of library resources is influenced most by users' perceived familiarity with the library and its resources. Those who are familiar with the library are more likely to use libraries. To encourage the greater usage of libraries, librarians need to educate users on how to use library resources not only in the confines of the library building but even when they access the resources remotely.

The result of the findings on the library resources that influence postgraduate students' research activities of federal universities in Southwest, Nigeria revealed that the majority of the respondents indicated that internet Services, reference services, reprographic services and borrowing/loaning of materials were the library services that have a major influence on the research activities of postgraduate students. In addition, the findings from the focus group discussion showed that reprographic services internet Services, borrowing/Loaning of materials and referral/Interlibrary loans are the services that influence the research activities of postgraduate students. This finding corroborated that of [17] who asserted that the universities impart imaginative education and facilitate research with the mission to produce sound and healthy manpower through quality services. In the same work, he noted that the services of university library namely, circulation, reference, indexing, abstracting etc. have been of great influence on research activities.

6. Conclusion

The study concluded based on the findings that the library provides resources and services that influence the research activities of postgraduate students. The influence of library resources and services is thus indispensable to postgraduate students to achieve their academic objectives. The influence of library resources and services could significantly and independently predict the research activities of postgraduate students.

7. Recommendations

Based on the findings made and conclusions drawn from the study, therefore, it is recommended that:

1) The library should create awareness about their current resources in the institutions.
2) The librarians should create awareness about the services they render to the users.
3) The library should make enough internet access points available for students.

References

[1] Abubakar, B. M. 2011. Academic Libraries in Nigeria in the 21st Century. Library Philosophy and Practice, 2011. ISSN 1522-0222. Available at: https://www.researchgate.net/publication/277262052_Academic_Libraries_in_Nigeria_in_the_21st_Century

[2] Adegun, A. I., Oyewumi, O. O. O ladapo, Y. O. and Sobalaje, A. J. 2015. Effectiveness of Library Service and Resources in an African University. Information and Knowledge Management, 5 (3). Online: https://www.iiste.org/Journals/index.php/IKM/article/viewfile/20582/21003 Accessed on 25 August 2019

[3] Adeniran, P. 2011. User Satisfaction with Academic Libraries Services: Academic Staff and Students Perspectives. International Journal of Library and Information Science, 3, 209-216. https://doi.org/10.5897/IJLIS11. 045

[4] Adeoye, M. O. and Popoola, S. O. 2011. Teaching Effectiveness, Availability, Accessibility, and Use of Library and Information Resources Among Teaching Staff of Schools of Nursing in Osun and Oyo State, Nigeria. Library Philosophy and Practice (e-journal) Online: Accessed on 12 March 2019.

[5] Agba, K. and Nyumba. 2004. Utilization of electronic information resources by academic staff at Makerere University. September 2004 University of Dar es Salaam Library Journal 6 (1) DOI: 10.4314/udslj.v6i1. 26613

[6] Ankrah E. and Atuase D. 2018. "The Use of Electronic Resources by Postgraduate Students of the University of Cape Coast". Library Philosophy and Practice (e-journal). Retrieved from: https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4675&context=libphilprac (30th April 2021).

[7] Bhatt, S. and Rana, N. S. 2011. E-information usage among engineers' academics in college libraries. A case study of electronic journal of academic and speed librarianship.

[8] Bhatti, R. and Muhammad H. 2013. Impact of ICT on Social Science Faculty Members' Information Usage Pattern at Bahauddin Zakariya University, Multan. Library Philosophy & Practice (2013).

[9] Brown, Sheridan & Swan, Alma. 2007. Researchers' use of academic libraries and their services: A report commissioned by the Research Information Network and the Consortium of Research Libraries.

[10] Chinasa Iroeze, P., Agim Nneka, N. and Opara, G. 2018. "Availability and Utilization of Information Resources and Services in the Special Education Centre Libraries in Southeast, Nigeria". International Journal of Library and Information Science Studies, (4) 3. Retrieved from: http://www.eajournals.org/wp-content/uploads/pdf (12 August 2019).

[11] Duy, J and Larivière, V. 2014 Relationships between Interlibrary Loan and Research Activity in Canada. Vol 75, No 1 (2014). DOI: https://doi.org/10.5860/crl12-378

[12] Eiriemiokhale, K. A. and Ibeun, M. O. 2017. "Awareness, Availability and Accessibility of Library Resources by Students of Kwara State University, Malete, Nigeria". Library Philosophy and Practice (e-journal). Retrieved from: https://digitalcommons.unl.edu/libphilprac/1629/ (30th April 2021).

[13] Hart, G. & Kleinveldt, L. 2011. The role of an academic library in research: Researchers' perspectives at a South African University of Technology. South African Journal of Libraries and Information Science. 77. 10.7553/77-1-65.

[14] Idiegbeyan-ose, J. and Esse, U. C. 2013. Students Satisfaction with Academic Library Resources and Services: The Covenant University Library Experience. Journal of Information and Knowledge Management, 4 (1). pp. 64-75. ISSN 2360-99X.

[15] Ikolo, V. E. 2015. Users Satisfaction with Library Services: A Case Study of Delta State University Library. International Journal of Information and Communication Technology Education, 11 (2). Online: https//pdfs.semanticscholar.org/5c94/de598e4bed5123a2732e 0915dde1b6517.pdf. Accessed on August 2019

[16] Iroaganachi, M. A. 2018. A Comparative Analysis of the Impact of Electronic Information Resources Use Towards Research Productivity of Academic Staff in Nigerian Universities. Library Philosophy and Practice (e-journal). Online: https://www.researchgate.net/publication/ Accessed on 9 March 2019

[17] Khan, A. and Ahmed, S. 2013. The impact of digital library resources on scholarly communication: challenges and opportunities for university libraries in Pakistan, Library Hi Tech News, Vol. 30 No. 8, pp. 12-29. https://doi.org/10.1108/LHTN-07-2013-0046 Luzius and Webb (2002)

[18] Khan, A., & Khan, J. 2016. Use of Information Sources and Services in Academic Libraries. International Journal of Research -GRANTHAALAYAH, 4 (10), 53–57. https://doi.org/10.29121/granthaalayah.v4.i10.2016.2490

[19] Luzius, J. and Webb, B. 2005. Nontraditional Students' Library Satisfaction 2005. Library Philosophy and Practice (e-journal). 38. https://digitalcommons.unl.edu/libphilprac/38

[20] Maina, J. Mogaka M., Benard O. G. and Evans N. M. 2017. Usage and User Satisfaction of Library Resources in Kisii University Library, Kenya. International Journal of Library and Information Science Studies Vol. 3, No. 3, pp. 20-29, November 2017. Published by European Centre for Research Training and Development UK (www.eajournals.org)

[21] Mwantimwa, K. 2017."Utilisation of E-Resources to Support Teaching and Research in Higher Learning Institutions, Tanzania". University of Dar es Salaam Library Journal, 12 (2). Retrieved from: https://www.ajol.info/index.php/udslj/article/download/18458 2/173939 (2 August 2019)

[22] Okhawere, N. &Isibor, O. &Otoghile, N. S. 2019. Undergraduate Students' Perception and Attitude towards Library Services in Nigerian Universities. https://www.researchgate.net/publication/331235090

[23] Okiki, O. C. 2013. "Availability of Information Resources for Research Output: Perception of Academic Staff Members in Nigerian Federal Universities". International Journal of Computer Science and Telecommunications, 4 (8). Retrieved from: https://www.researchgate.net/publication/ (13 March, 2019).

[24] Onuoha, U. D. Ikonne, C. N, and Madukoma, E. 2013. "Perceived Impact of Library Use on the Research Productivity of Postgraduate Students at Babcock University, Nigeria". IOSR Journal of Research and Method in Education (IOSR-JRME), 1 (1). Retrieved from: http://www.iosrjournals.org/iosr-jrme/papers/Vol-1%20Issue-1/C0111116.pdf (4 March 2019).

[25] Popoola, S. O., & Haliso, Y. 2009. Use of Library Information Resources and Services as Predictor of the Teaching Effectiveness of Social Scientists in Nigerian Universities. African Journal of Library, Archives and Information Science, 19, 65-77.

[26] Singh, M. 2007 "Universities and Society: whose Terms of Engagement"? In: Sörlin, S. and Vessuri, H. (eds) Knowledge Society vs. Knowledge Economy: Knowledge, Power, and Politics.

[27] Tella, A., Tela, A., Ayeni, C. O., and Omoba, R. O. 2009. Self-Efficacy and Use of Electronic Information as Predictors of Academic Performance Electronic Journal of Academic and Special Librarianship (Summer 2007) 8 (2). available at http://southernlibrarianship.icaap.org/content/v08n02/tella_a0 1.html.

[28] Ubogu, F. N. 2000. The Paperless Society. Farce or Reality? African Journal of Library Archives and Information Science, 10 (1): 1-12.

[29] Unegbu, V. E. 2017. "Library Resources Availability and Accessibility as Determinants of Undergraduates Library Use in Lagos State University, Nigeria". Information Resources Management Department, Babcock University. Retrieved from: http://eprints.covenantuniversity.edu.ng/pdf (14 March 2019).