
Signage and Information and Communication Technology (ICT) Facilities as Correlate to Utilisation of Information Resources in Federal Universities' Libraries in South-South Zone of Nigeria

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ABSTRACT

This study was aimed at investigating the extent to which signage and ICT facilities correlate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria. The correlational research design was adopted for the study. Three research questions were answered while three hypotheses were tested. The population of the study comprised 32,190 registered library users for the 2017/2018 academic session and 776 library staff from six federal university libraries in south-south zones of Nigeria. The sample size for the study was 3,219 registered library users and 310 library staff representing 10% and 40% of the population respectively. A two-stage sampling technique of stratified and simple sampling techniques was used to select the sample size. Two Sets of instruments titled; "Signage and Information and Communication Technology Facilities Questionnaire (SICTFQ)" for the students and "Utilization of Information Resources Questionnaire (UIRQ)" were used for data collection. Face and content validity was ensured by three experts. The two instruments yielded reliability coefficients of 0.81 and 0.87 respectively with the use of Cronbach Alpha. Mean was used in answering research questions while Regression was used in testing the null hypotheses at 0.05 alpha level. It was found that to a great extent signage relates to the utilisation of information resources while information and communication technology facilities is the vice versa. Based on the findings, it was concluded that jointly, signage and ICT facilities are significant correlate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria. It was therefore recommended among others that library management should improve on the provision of signage by ensuring that well-designed signage suitable for the 21st century is placed at strategic location to guide library users on the utilisation of information resources in federal universities libraries in South-South zone Nigeria.

Keywords: Signage, Information and Communication Technology, Facilities, Utilisation of Information Resources, Universities.

BACKGROUND TO THE STUDY

The library is a linchpin of academic activities in the university. It is the largest single source of knowledge and information within the university system. The library will of course not make as much impact as expected without the librarians. Beside the need for the traditional roles of

acquisition, storage, and dissemination of information, librarians are saddled with the responsibility of connecting library patrons with the needed information resources. However, in a university library where fast paced services are in high demand by library patrons, there are facilities being adopted in ensuring that even with a handful of librarians when compared to the demand for service delivery, the users are not left to fate rather, they are better served. In this vein, scholars have identified signage and information and communication technology (ICT) facilities as measurement parameters of interest. Signage is an important part of communication and is essential for promoting safety and accessibility for library patrons because every library user who enters a library building in search of information must deal with the library's arrangement throughout the search process thereby making signage a vital part of the library so as to encourage the users to maximise the use of the library information resources.

Notably, library signage serves the purposes of informing library users and trying to influence their behaviour (Serfass, 2012). Library signage has been found useful by researchers in helping library patrons to feel comfortable and confident in using the library. Consequently, librarians have been observed in undertaking responsibilities around designing signage, brochures, informational hands-out, web pages, and promotional and instructional documents every day as part of their jobs. Hence, whether the library arrangement will be an aid or an obstacle to the user depends upon the extent to which the librarian acts to shape the library as an instructional tool which could have a lot of influence on the extent of information resources utilization. Signage is therefore essential in libraries as they give directions in and around the library which serves to define and attain the ultimate aim of a well designed library as a place characterised by adequate information services through the satisfaction of the information needs of patrons (Imeremba 2011). That is why scholars (e.g. Ibrahim & Zakari, 2017) reiterated that it is imperative for all libraries, especially those within the university system, to provide top-notch library services to users in a bid to engendering proper acquisition and dissemination of useful information.

Notably, service delivery of information can have a lot of influence on the extent of usage by library users. It cannot be overemphasized that the success of a library depends on the extent of the services it offers on account of the fact that library users are the rationale behind the establishment of university libraries with regards to satisfying their various information needs (Harvey, 2016). It is also incontrovertible that when a service has loyal patronage, it gains positive words of mouth marketing which is free and highly effective and the higher the perceived information and service delivery, the greater the level of patronage. In this vein, a university library may become the nexus of data gathering and a centre of self development for all students if the service rendered meet needs, aspirations and expectations of users over a long period of time. This further supports the position of Ig-Worlu (2021) who remarked that library services are described as the professional guidance and assistance rendered to library users. Howbeit, these guidance and assistance can never be met if the libraries are not in the best of shape especially in providing quick access to needed information resources by the library patrons.

In delivering a competitive library service in the university system as noted earlier, scholars are of the opinion that information and communication technology (ICT) facilities are measurement parameters of interest. Besides, it can be generally acknowledged that with the emergence of the digital age and electronic resources, access to information is relatively enhanced as information is made available and accessible to academic staff and students through computers,

the internet, digital libraries and related electronic networks and is readily used in the research process. Consequently, information and communication technology facilities have become the tools that underpin the emerging information or knowledge society (Hicks & Given, 2013). The need for attaining the real goal of university libraries and librarians in making all published works of human kind accessible to everyone irrespective of where they are in the world has given rise to the evolving university libraries from traditional roles of conducive and papered library system into a flexible and well equipped ICT facilitated university libraries (Aguolu & Aguolu, 2002). So, the system of ICT facilitated library involves the electronic use of all forms of technology in the processing, storing and transmitting of information. It basically consists of three components which are: electronic processing using the computer, transmission of information using telecommunication equipments and the use of multimedia in the dissemination of information. However, truth be told, the state or extent of utilisation of information resources in federal universities' libraries in South-South zone of Nigeria has been under reported. While the libraries staffs have always defend their position as delivering quality service to the students, the students have not been specific on how much of satisfaction they have gained with regards to the extent of access to needed information resources in their various universities. To this end, this paper established that services are actually offered and there is an integration of ICT in the service delivery of university libraries by the librarians in the federal universities' libraries in South-South zone of Nigeria. Notwithstanding, this paper sought to establish the extent signage and ICT facilities correlate to the utilisation of information resources in federal universities' libraries in South-South zone of Nigeria.

STATEMENT OF THE PROBLEM

Evidences abound in federal universities in the South-South zone of Nigeria that provisions are made for libraries and there are staffs employed to offer professional service to the students. However, from anecdotal experience and dailies on the state of academic system within the federal universities in the South-South zone of Nigeria, students have turned more to the use of cyber café and other internet devices to access needed information with regards to secondary data gathering in their academic research when compared to how often they visit the university libraries. Reasons given are the stress they go through in accessing information resources relevant to their information needs. More disturbing is a situation where these students while seeking for better alternatives through different platforms end up gathering irrelevant data and/or information and sometimes, being defrauded by cyber café operators and online marauders—whereas, the students have been charged already by the school authorities to make use of the university libraries so as to access the right information in a safe environment and in a timely manner.

What therefore bothered and motivated the researcher is, could the needless exposure of the students to the sorry state of carrying out research and accessing the right information be attributed to the extent of available signage and/or ICT facilities in federal universities' libraries in South-South zone of Nigeria? Simply put, to what extent can signage and ICT facilities correlate to the utilisation of information resources in federal universities' libraries among the students in South-South zone of Nigeria?

AIM AND OBJECTIVES OF THE STUDY

This study was aimed at investigating the extent to which signage and ICT facilities correlate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria. Specifically, the study sought to:

1. examine the extent to which signage relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria;
2. ascertain the extent to which ICT facilities relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria; and,
3. find out the extent to which the joint variables (signage, ICT facilities) relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

RESEARCH QUESTIONS

1. What is the extent to which signage relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria?
2. What is the extent to which ICT facilities relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria?
3. What is the extent to which the joint variables (signage, ICT facilities) relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria?

HYPOTHESES

The following three (3) null hypotheses were tested at 0.05 alpha level.

1. Signage do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.
2. Information and communication technology facilities do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.
3. Joint variables (signage, ICT facilities) do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

CONCEPTUAL FRAMEWORK

The concept of this study is situated on signage and ICT facilities in the utilisation of information resources in university libraries as diagrammatically represented in figure 1 below.

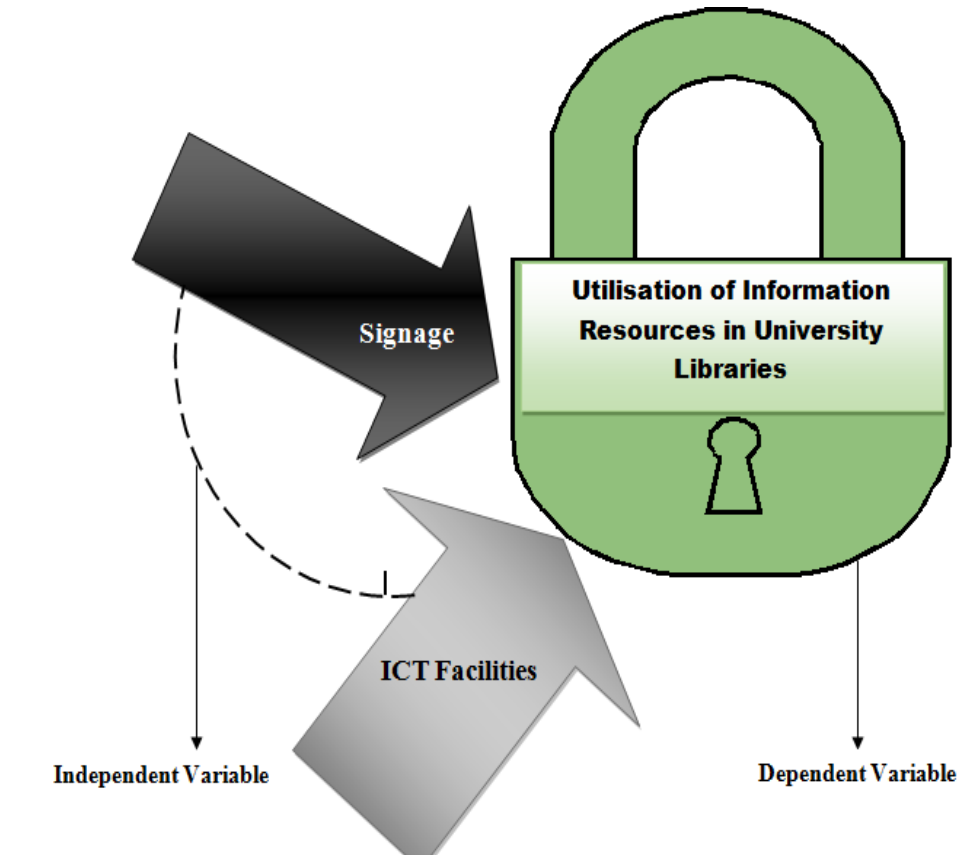


Figure 1. Source: Researchers' conceptualization

CONCEPTUAL REVIEW

Concept of Utilisation of Information Resources

Utilization is a term that qualifies the action of making practical and effective use of something (Hornby, 2006). To use means to apply, employ or practice something with the aid of benefiting from it. Uhegbu (2007) posited that utilization is the actual putting into appropriate use of something. It is the process of making use of something available. Utilization differs from person to person and from one corporate organization to another according to their information needs and other social-economic imperatives. According to Uhegbu, utilization is governed by several a principle among which is goal identification. Therefore, information utilization is the act of applying information on the actual purpose for which it is sought. Information can be sought by a user to satisfy personal needs or sought by a user to create knowledge. Utilization of information

resources is the extent to which the resources and services of the library are actually used for teaching, learning and research. The extent to which information resources are utilized in academic libraries is usually captured by the library statistics which is compiled on daily basis by the library staff. It therefore, becomes pertinent that in order to gauge the extent to which library resources are utilized, the library staff must be proactive in providing statistics of usage on daily basis. This will serve as encouragement or otherwise to the sponsors of the library (Ozioko, et al, 2012). Information utilization focuses on what people in a range of contexts do with information that they seek out or have provided to them:

Signage and Utilisation of Information Resources

Signage, as explained by a library science dictionary, is any kind of visual symbol/mark created to display particular meaning'. Dictionary of modern design (Park, 2016) explains signage as a basic unit of communication, creating massive possibilities by combining meaningless indicators. Signage uses marks, lights, and symbols to express or deliver a message. The range of signage is very broad, including library building itself, trees around the main entrance, and landmarks on the top of the building Korea Library Association (KLA) (2019). Signage is an important part of communication and is essential for promoting safety and accessibility for library patrons. Confusing floor plans, poor signage and use of library jargon confound library patrons, especially first-time visitors. It is important to have an attractive and effective sign system that is consistent throughout all public areas of the library. Great signage communicates your competence, understanding, and care for the people using your library. Every person who enters a library building in search of information must deal with the library's physical environment throughout the search process. This environment is the medium through which the user moves, and it is also a source of informational cues that he/she uses in making a series of way finding choices and strategic choices. Every user receives cues from the environment; this is true whether these cues are planned or unplanned, consistent or random, helpful or confusing. Whether the environment will be an aid or an obstacle to the user depends upon the extent to which the library acts to shape its environment as an instructional tool. Signage is the first issue in most public places, the purpose is to boost, encourage and enhance service delivery and it help libraries reflect on what they do, and how they can improve serving their community. Library users are bombarded by signs when they enter the library. First impressions are important and negative signage can start a library user's visit on a wrong note and as such library's signage is to be more welcoming and effective.

Information and Communication Technology Facilities and Utilisation of Information Resources

Libraries have undergone several changes in information formats and technology. Library professionals should focus on their traditional roles towards changing the library services and expectations of their patrons (Novak & Day, 2015). With the emergence of the digital age and electronic resources, access to information is relatively enhanced as information is made available and accessible to academic staff and students through computers, the internet, digital libraries and related electronic networks and is readily used in the research process. In the emerging electronic information environments in Nigeria universities, electronic resource now provides platforms for accessibility and utilization of information in the research process as they are perceived to have a positive effect on research productivity. With electronic resources, access to information and its

utilization is faster; hence promote research productivity among staff and library users. Since ICT is the order of the day in almost all institution, a leader should endeavour to move his or her followers to adopt the new changes. Information and communication technology is the tools that underpin the emerging information society or knowledge society (Hicks & Given, 2013). It can be described as a society in which the creation, distribution and manipulation of information and knowledge have become the most significant economic and cultural activity. More recently, libraries are understood as extending beyond the physical walls of a building, providing assistance in navigating and analysing tremendous amount of knowledge with a variety of tools. Its aim is to enable the users to make available and accessible the required information and facilitate the most effective use of such resources.

THEORETICAL REVIEW

Expectation Confirmation Theory

Expectation confirmation theory (ECT), developed by Richard L. Oliver in 1977, is a cognitive theory which seeks to explain post-purchase or post-adoption satisfaction as a function of expectations, perceived performance, confirmation, satisfaction and repurchase intention. The theory averred that expectations, alongside perceived performance, results in post-purchase satisfaction and it are intermediated via positive or negative confirmation of expectations by performance. Although the theory originally appeared in the psychology and marketing literatures, it has since been adopted in several other scientific fields in the dimensions of five constructs: expectation, performance, confirmation, satisfaction and repurchase intention, notably including consumer research and information systems, amongst others. The theory reiterated that if a product/service beats expectations (positive confirmation), post-purchase gratification will take form. On the contrary, if a product/service fails to meet expectations (negative confirmation), consumers' dissatisfaction is probable.

In this paper, users' expectation represented what their prospects are about the library and library information resources. A library user will form preconceived perceptions about library information resources before usage. According to ECT (as cited in Ig-Worlu, 2021) perceptions based on the performance of a product are directly prejudiced by pre-use expectations, and consequently directly impact confirmation of opinions and post-use satisfaction of library information resources. After interactions with library information resources, confirmation of the preconceived perception is arrived at. These assessments are arrived at in comparison to the user's initial expectations. When a service or product beats the user's preconceived expectations, the confirmation is positive, which is speculated to increase post-use satisfaction of library information resources. When the outcome is different from the user's initial expectations, the confirmation is negative, which is suggested to decrease post-use or post-adoption satisfaction of library information resources. Thus, the theory is very relevant to the study because, the main aim of any university library is to ensure maximum use of its information resources by maximum number of students which cannot be achieved when the library users who are mainly students are not satisfied with the services. When the library becomes appealing to the students with ease of access to information resources and impeccable service delivery by the librarians, it will increase post-use satisfaction of library information resources. Users will always visit the library if they feel

welcome with regards to seamless access to information resources which will invariably enhance the use of information resources in university libraries.

METHODOLOGY

A correlational survey design was adopted for this study. The area of this study is the south-south geo-political zone of Nigeria. It comprises of six states: Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers. The study population comprised of 32,190 registered library users for the 2017/2018 academic session and 776 library staff from six federal university libraries in south-south zones of Nigeria. The sample size for the study was 3,219 registered library users and 310 library staff representing 10% and 40% of the population respectively. A two-stage sampling technique of stratified and simple sampling techniques was used to select sample of students and library staff from the population for the study. Two sets of instruments titled; “Signage and Information and Communication Technology Facilities Questionnaire (SICTFQ)” for students and “Utilisation of Information Resources Questionnaire (UIRQ)” were used for data collection. Face and content validation were ensured by three experts. SICTFQ consists of sixteen (16) items of two (2) sections while UIRQ has twenty (20) items only. This was coded in the four-point likert type scale of: Very Great Extent (VGE), Great Extent (GE), Little Extent (LE), and Very Little Extent (VLE) and weighted as 4, 3, 2, and 1 respectively. The two instruments yielded reliability coefficients of 0.81 and 0.87 respectively with the use of Cronbach Alpha. Mean was used in answering research questions while Simple Linear Regression and Multiple Linear Regression were used in testing the null hypotheses at 0.05 alpha level.

RESULTS

Answer to Research Questions

Research Question 1: What is the extent to which signage relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria?

Table 1: Mean and Standard Deviation scores of the extent to which signage relate to utilisation of information resources in federal university libraries

| S/N | Signage: | \bar{x} | sd | Remarks |
|-----|--|-----------|------|---------|
| 1. | Make the use of library seamless | 3.04 | 0.87 | GE |
| 2. | Provide information on special events | 2.58 | 0.99 | GE |
| 3. | Enhance self-direction | 2.98 | 0.85 | GE |
| 4. | Instruct on how to use library equipment | 2.72 | 0.89 | GE |
| 5 | Facilitate the quick identification of library resources | 3.03 | 0.90 | GE |

| | | | | |
|---|---|-------------|-------------|-----------|
| 6 | Show fire exit routes | 2.25 | 0.96 | LE |
| 7 | Instruct on safety procedures | 2.42 | 1.04 | LE |
| 8 | Show specific procedures at circulation desks | 2.54 | 0.95 | GE |
| | Cluster Mean | 2.70 | 0.93 | GE |

GE: Great Extent, LE: Low Extent.

The results in Table 1 showed the weighted Mean values for the response of students on the extent to which signage relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria. All the items indicated a great extent (GE, >2.5) except items 6 and 7. Thus, the cluster mean of 2.70 for all the items implies that to a high extent signage relate to utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Research Question 2: What is the extent to which information and communication technology (ICT) facilities relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria?

Table 2: Mean and Standard Deviation scores of the extent to which information and communication technology (ICT) facilities relate to the utilisation of information resources in federal university libraries.

| S/N | Information and Communication Technology (ICT) facilities | \bar{x} | Sd | Remarks |
|-----|---|-------------|-------------|-----------|
| | The library has: | | | |
| 9. | Adequate computers for the users | 1.81 | 1.03 | LE |
| 10. | 24-hour Interconnectivity (internet) | 1.73 | 1.02 | LE |
| 11. | Local Area Network (LAN) | 1.99 | 1.09 | LE |
| 12. | Wi-Fi | 1.89 | 1.08 | LE |
| 13 | Enough e-resources | 1.94 | 0.98 | LE |
| 14 | Scanner for document scanning | 1.77 | 0.96 | LE |
| 15 | Printer for the user to print downloaded materials | 1.85 | 0.98 | LE |
| 16 | Photocopy machine | 1.98 | 1.03 | LE |
| | Cluster Mean | 1.87 | 1.02 | LE |

The results in Table 2 showed the weighted Mean values for the response of students on the extent to which ICT facilities relate to utilisation of information resources. All the items showed a low extent (LE, < 2.5) of ICT availability and utilisation of information resources in federal university libraries. Thus, the cluster mean value of 1.87 for all the items implies that to a low extent ICT facilities relate to utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Research Question 3: What is the extent to which the joint variables (signage, ICT facilities) relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria?

Table 3: Joint variables (signage, ICT facilities) and the extent of relationship to utilisation of information resources in federal university libraries in South-South zone of Nigeria

| R | R ² |
|-------|----------------|
| 0.815 | 0.664 |

The results in Table 3 showed the analysis of signage and ICT facilities as correlates to utilisation of information resources in federal university libraries in South-South zone of Nigeria. The analysis indicated the joint regressions of signage, ICT facilities and utilisation of information resources obtained a correlation coefficient of 0.82 (R = 0.815) indicating a high correlation between the independent variables (signage, ICT facilities) and the dependent variable (utilisation of information resources). Furthermore, the R² of 0.664 was obtained as the coefficient of determination of 66%. This implies that signage and ICT facilities jointly predict the utilisation of information resources in federal university libraries in South-South zone of Nigeria by 66%.

TEST OF HYPOTHESES

Hypothesis 1: Signage do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Table 4: Result of Simple Linear Regression analysis on how signage relate to the utilisation of information resources in federal university libraries

| Model | Sum of Squares | df | Mean Square | F-cal | F-crit |
|------------|----------------|------|-------------|-------|--------|
| Regression | 6217.09 | 1 | 6217.09 | 79.49 | 3.85 |
| Residual | 274911.43 | 3515 | 78.21 | | |
| Total | 281128.52 | 3516 | | | |

*significant at .05 alpha level; df=1 and 3515; N=3517; R = 0.743; R²=0.552

The results presented in Table 4 showed the R-value of 0.74 as the strength to which signage relate to the utilisation of information resources in federal university libraries. The R²-value of 0.55 indicated that only 55% variation in utilisation of information resources in federal university libraries is related to signage. The result also showed that the calculated F-value of 79.49 is greater than the critical F-value of 3.85 at 0.05 alpha level and at 1 and 3515 degrees of freedom. With this result, the null hypothesis was not retained. This implies that signage do significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Hypothesis 2: Information and communication technology (ICT) facilities do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Table 5: Result of Simple Linear Regression analysis on how ICT facilities relate to the utilisation of information resources in federal university libraries

| Model | Sum of Squares | df | Mean Square | F-cal | F-crit |
|------------|----------------|------|-------------|-------|--------|
| Regression | 539.26 | 1 | 539.26 | 3.16 | 3.85 |
| Residual | 599889.97 | 3515 | 170.67 | | |
| Total | 281128.52 | 3516 | | | |

*significant at .05 alpha level; df=1 and 3515; N=3517; R = 0.506; R²=0.488

The result presented in Table 5 showed the R-value of 0.51 as the strength to which ICT facilities relate to the utilisation of information resources in federal university libraries. The R²-value of 0.49 indicated that only 49% variation in utilisation of information resources in federal university libraries is related to ICT facilities. The result showed that the calculated F-value of 3.16 is lesser than the critical F- value of 3.85 at 0.05 alpha level and at 1 and 3515 degrees of freedom. With this result, the null hypothesis was retained. This implies that library ICT facilities do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Hypothesis 3: Joint variables (signage, ICT facilities) do not significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Table 6: Result of Multiple Linear Regression analysis of how signage and ICT facilities relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria

| Model | Sum of Squares | df | Mean Square | F-cal | F-crit |
|------------|----------------|------|-------------|-------|--------|
| Regression | 1102.47 | 1 | 1102.47 | 5.24 | 2.02 |
| Residual | 739021.85 | 3515 | 210.25 | | |
| Total | 740124.32 | 3516 | | | |

*significant at .05 alpha level; df=1 and 3516; N=3517; R = 0.815; R² = 0.664

The result presented in Table 6 revealed the R-value of 0.82 as the strength to which signage and ICT facilities relate to the utilisation of information resources in federal university libraries. The R²-value of 0.66 indicated that only 66% variation in utilisation of information resources in federal university libraries is related to signage and ICT facilities. The result in the Table showed that the calculated F-value of 5.24 is greater than the critical F- value of 2.02 at 0.05 alpha level and at 1 and 3515 degrees of freedom. With this result, the null hypothesis was not retained. This implies that signage and ICT facilities, do significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

DISCUSSION OF FINDINGS

The findings of this study are discussed under the following subheadings:

Signage and Utilisation of Information Resources in Federal University Libraries in South-South Zone of Nigeria

It was found that to a great extent signage relates to the utilisation of information resources and that signage do significantly relate to the utilisation of information resources in federal universities libraries in South-South zone of Nigeria. This is because signage is an important part of communication and is essential for promoting safety and accessibility for library patrons. The main purpose of signs is to communicate, to convey information designed to assist the receiver with decision-making based on the information provided. This finding supports the finding of Polger and Stempler (2014) who reported that regular visitors to a library need help to inform and guide them through the continual changes that a library undergoes. This assistance is often provided through signage, which must be regularly reviewed and updated. It has been found that library users may experience a fear of appearing 'stupid' and revealing ignorance by asking questions which can be a psychological barrier to requesting assistance thereby leading to poor library utilization. This is supported by the finding of Fawley (2016) who stated that inefficient signage, and confusing way finding can make a person visit frustrating and unsatisfying.

Information and Communication Technology Facilities and Utilisation of Information Resources in Federal University Libraries in South-South Zone of Nigeria

The finding showed that to a low extent ICT facilities relate to utilization of information resources while the hypothesis indicated that ICT facilities do significantly relate to the utilization of information resources in federal universities libraries in South-South zone of Nigeria. This is because the provision of ICT facilities is paramount to the utilisation of university library. Adequate ICT facilities enable libraries to locate, store, retrieve and disseminate information in a timely manner befitting for the 21st century library service delivery. ICT tools such as 24-hour interconnectivity (internet), local area network (LAN), Wi-Fi, scanner for document scanning, printer for the user to print downloaded materials and photocopy machines are used in libraries for digitisation and timely dissemination of information. This finding supports the finding of Onyinloye (as cited in Ig-Worlu, 2021) who remarked that information technology is responsible for the changing role of the traditional library setting. The library which is still a combination of the past (print collections) and the present (new information technologies must be viewed with a new perspective and understanding if it is to fulfill its potential in adding value to the advancement of the institutions academic mission and in moving with that institutions into the future. The integration of new information technology has actually become the catalyst that transforms the library into a move vital and critical intellectual centre of life at colleges and universities today. The finding is also supported by finding of Hicks and Given (2013) that information and communication technology is the tools that underpin the emerging information society or knowledge society.

Joint Variables (Signage and ICT Facilities) and Utilisation of Information Resources in Federal University Libraries in South-South Zone of Nigeria

The finding showed that to a great extent, signage and ICT facilities jointly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria while the hypothesis also indicated that signage and ICT facilities do jointly significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria. This finding supports the finding of Amusa and Iyoro (2013) who reported that about 76% of their respondents affirmed that adequate facilities had a great influence on library use.

CONCLUSION

Based on the findings of this study, it can be concluded that jointly, signage and ICT facilities are significant correlate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria. However, ICT facilities scored low as an independent correlate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Recommendations

The following recommendations were made based on the findings of the study

1. The library management should improve on the provision of signage by ensuring that well-designed signage suitable for the 21st century is placed at strategic location to guide library users on the utilisation of information resources in federal universities libraries in South-South zone Nigeria.
2. Niger Delta Development Commission (NDDC) should come to the aid of the universities by providing contemporary Information and Communication Technology (ICT) facilities to engender the utilization of information resources in federal universities' libraries in South-South Zone Nigeria.
3. There should be provision for adequate maintenance of available signage and ICT facilities so as to enhance the utilisation of information resources in federal university libraries in South-South zone of Nigeria.

Contributions to Knowledge

The review revealed that though several studies had been conducted in the study area, it seem none of the studies was based on signage and ICT facilities correlate to utilisation of information resources in federal universities' libraries in South-South zone Nigeria. This present study was conducted to fill this gap. The study had empirically established that signage and ICT facilities significantly relate to the utilisation of information resources in federal university libraries in South-South zone of Nigeria by 66%.

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