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Analysis of Final Year Students' Satisfaction with Information Resources and Services in Four Nigerian Federal University Libraries

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Abstract This paper examined user satisfaction amongst final year students in four federal university libraries in South-East Zone of Nigeria. A rating scale designed for this study was validated by two experts while its reliability test using Cronbach Alpha produced a coefficient index of r = 0.86. The availability sampling technique was used to administer 200 copies of the research instrument to respondents in each of the institutions surveyed. A combination of descriptive and inferential statistics was used for data analysis while frequency tables were used to present the results. The level of significance was tested at 0.05% through independent sample t-test. The findings revealed that graduating students are satisfied with the traditional library resources, reference services, photocopying services, as well as ergonomic-related facilities provided by libraries in their respective institutions. However, majority of these students expressed disappointment with the level of access to computers and other ICTs, irregular internet services, outdated textbooks, among others. The recommendations include: provision of access to computers and other ICT facilities and provision of adequate financial resources.

Keywords *Library Resources; Library Services; User Satisfaction; University Libraries; Federal Universities – Nigeria*

1. Introduction

The university library is the hub around which higher scholarship and advanced research activities revolve. It supports its parent institutions by acquiring conventional information sources such as textbooks and serials, as well as, specialized and unconventional materials which have both research and educational value (Smith, 2006; Yusuf & Iwu, 2010). Perhaps, the most-cited reference to the importance of a university library remains its description as the 'central organ a primary and most vital equipment of the university' by the University Grants Committee, United Kingdom in 1921 (Nwosu, 2000). The philosophy and principle behind the establishment of university libraries derives from the need to generate, organise, preserve and disseminate new knowledge for enlightenment and societal

development. Embedded in this primary objective is the urge to ensure that those who patronize the services of any university library satisfy their information requirements through available collections of documents, infrastructural facilities and human resources. This means that a university library that lacks the capacity to meet the information, educational and recreational demands of its users loses its relevance.

The liberalization of ownership of universities in Nigeria following the reforms of tertiary education sector has led to the emergence of three broad categories of universities. These types are usually determined by their proprietorship. Hence, there are now federal, state and private universities in the country. Statutorily, these tertiary institutions are established alongside their libraries. Aniebo (2004) explained that compared to other types of academic libraries, the university library holds a relatively larger collection and is better funded and staffed. It has also been observed that university libraries in Nigeria, like their counterparts elsewhere, occupy prominent positions in the provision of tertiary education. These libraries exist to provide such information services that enable their parent institutions achieve excellence in the performance of the tripartite functions of teaching, research and community services (Idiebgeyan-Ose et al., 2005; Eyo & Nkanu, 2009). Libraries in Nigerian universities are therefore conceptualized as dynamic and complex agencies saddled with the critical task of providing variegated information resources, as well as cross-matching of services to meet an assortment of information needs.

Several research reports, including Okeodion and Anaehobi (2014) and Nnadozie (2016) have drawn attention to the fact that the major users of the resources and services of universities in Nigeria are members of the academic community within these institutions. This is understandable considering the involvement of these intellectuals in various levels of scholarly pursuits, researches and knowledge generation. However, it has been established in a recent study by Ahmed, Romle and Mansor (2015) that use does not always presuppose satisfaction. It therefore becomes necessary to find out the extent or level of satisfaction with the resources and services of federal university libraries in Nigeria using a sub-set of the academic community. This study covers only four (4) universities owned by the Federal Government of Nigeria. These institutions are located in the South-East Zone of the country. Two (2) of them are specialized, namely: Federal University of Technology, Owerri (FUTO) (for Science and Engineering studies) and Michael Okpara University of Agriculture (MOUA), Umudike (for Agricultural Science and allied disciplines). The remaining two (2), which are conventional, are Nnamdi Azikiwe University (NAU), Awka and University of Nigeria, Nsukka (UNN).

2. Objectives and Research Questions

The main purpose of this study is to find out graduating students' satisfaction level in relation to the resources and services of federal university libraries in South-East Zone of Nigeria. Based on this, the following specific objectives were derived, viz, to:

  i. Find out the types of information resources used by final year students in the libraries under study.
 ii. Identify the kinds of information services provided to final year students.
iii. Ascertain the level of satisfaction derived by final year students from resources and services provided.
 iv. Highlight the causes of final year students' dissatisfaction with available resources and services.
  v. Find out the consequences of final year students' dissatisfaction with resources and services.

Two (2) null hypotheses were tested in this study at 0.05% level of significance. They are:

HO_1: There is no significant statistical difference in the mean score of final year students' satisfaction with library resources in specialized and conventional federal universities.

HO$_2$: There is no significant statistical difference in the mean score of final year students' satisfaction with library services in specialized and conventional federal universities.

3. Review of Related Literature

Evaluating the use of library and information system, according to Ugah (2007), is one of the major concerns, and integral part of the duties, of library and information science practitioners. Oyewusi and Oyeboade (2009) explained that library services largely revolve around collections of textual matters and other bibliographic information sources. It also includes various information technologies like computers and the internet which support browsing, authoring and communication. It is worthy of note that with Internet and the availability of new technologies and numerous electronic indexes, abstract and databases, the range of services that academic libraries can provide has increased dramatically. In their study of information services provision and users' satisfaction in agricultural research libraries in Nigeria, Uganneya et al. (2012) observed that library and information professionals have provided a range of services including reference and circulation. These services facilitate the inter-change of library data, promote the inter-operability of library system and support national and international networking of libraries.

There has been a noticeable shift in the nature of information services provided in Nigerian academic libraries. Anunobi and Okoye (2008) captured this trend stressing that academic libraries no longer restrict themselves to print services such as collection development, cataloguing and classification, circulation and reference services, current awareness, selective dissemination, and other bibliographic services. This is in line with the result of a subsequent study by Okeodion and Anaehobi (2014) which showed that interlibrary services, document delivery, reference services and lending services were provided. Not only have these services been extended to non-members of the universities' immediate community, most of these libraries have stretched their efforts to inter-disciplinary concepts like computer software and hardware, telecommunication engineering and Internet technology (Adeyemi, 2014; Awodele, 2014; Diyaolu et al., 2015). However, Afolabi and Abidoye (2012) observed that most services provided in libraries are complemented by available facilities, some of which are technology-driven. This is the basis of the increasing technology application in the provision of library services to patrons in modern library systems.

Studies by Yusuf and Iwu (2010), Gunasekera (2010), Ababio et al. (2012) and Eiriemiokhale (2012) show that an overwhelming majority of their participants are satisfied with the resources and services provided in the surveyed institutions. On the contrary, Shafique et al. (2012) reveal that although respondents have shown their overall satisfaction with the major library services, the analysis of the data about users' satisfaction shows that they were not fully satisfied with their respective library services. This is a validation of an earlier report by Nnadozie (2008) in which students showed their displeasure with the resources and services in Nigerian academic libraries, especially, polytechnic libraries.

Ezeala (2009), in relation to effectiveness of library resources and services, argued that irrespective of whether the evaluation is quantitative or qualitative, parameters are set to be judged by users, who are in the best position to evaluate effectiveness of the library. She reported that more than three quarters of the respondents in her study indicated that the libraries are ineffective and this to her has the capacity to hamper the productivity of the research scientist. Respondents to the study by Okeodion and Anaehobi (2014) had a low perception of current awareness services (CAS), user education, internet services and exhibition/display of current materials as can be deduced from the low mean score of each of these services. Majid (as cited in Gunasekera, 2010) found out that the adequacy of collection, services, and facilities were closely linked to the perceptions of library effectiveness. The study stressed further that certain factors contributing positively to the perceptions of library effectiveness were: the adequacy and effectiveness of library promotion, involvement of

users in the selection of library materials, convenient library location, participation in user education programme, availability of assistance for using library resources and facilities and subject background of library professionals.

The effectiveness and efficiency of a university library is best measured by the extent to which library resources and services satisfy the needs of users. Thus, for a library to be worth its salt, the resources and services it renders must meet and satisfy the needs of its users. This fact is the thrust of the submission by Kebede (1999) who noted that performance evaluation of a library and information system or its components can be required for different reasons. For instance, the evaluation of the performance of library and information systems and the resulting data could be used to assess how well the system meets its objectives or justification of continuance of a service (Nnadozie, 2008).

It has been observed in separate surveys by Ezeala (2009), Oyelekan and Iyortsuun (2012) and Uganneya et al. (22012) that certain factors undermine the ability of academic libraries in Nigeria to satisfy their clients. Foremost of these factors that lead to system ineffectiveness are: gross underfunding of the libraries by their parent institutions; poor condition of essential services in the library such as photocopying machines, bindery equipment and inter-library cooperation; outdated library materials; irregular Internet services and staff irresponsiveness to users' information needs. These situations result to user dissatisfaction and low perception of the library by students (Nnadozie, 2008; Nwezeh, 2011).

Writing particularly about libraries funded by various state governments in Nigeria, Iwhiwhu and Okorodudu (2012) argue that these libraries can meet the satisfaction level of users if the following strategic approaches are adopted and implemented: adequate funds should be provided by the proprietors of these libraries to enable them acquire relevant information resources and ICT facilities and staff are expected to change their attitude to work and towards users and render the necessary assistance to facilitate information search and retrieval in order to satisfy their information need. In another study of a state public library, Umunnakwe and Nwachukwu (2009) suggested ways of improving libraries to make them perform all the expected roles and achieve 'education-for-all' goals in Owerri Municipal Council and these suggestions include: employment of knowledgeable and friendly staff, increased library vote, staging of rallies as a way of creating awareness, seminars and conferences, inter-library loan, consortium building and networking. Issa et al. (2015) harped on the need to expose undergraduate final year students to information literacy competency considering their heavy involvement with such academic engagements as assignment, term paper and writing of project report.

4. Justification for the Study

There is no doubt that there has been a sustained interest in user satisfaction in libraries. This claim is attested to, in part, by the volume of published reports reviewed for this study. Some of these works even focused on lecturers and students of tertiary educational institutions as the major components of the academic community within various universities. However, this general approach does not give room for adequate concentration on the specific sub-components of these user groups. The demographic differences amongst these user groups within the university academic environment may throw up variables that may make it difficult to generalize the results of studies done with one broad group or sub-group to others. This is more so with the student body that has distinct sub-populations. Besides their diverse socio-metric backgrounds, the differences in the courses of study and stages/level of their programme make it imperative that the extent of satisfaction among specific components of the student body be examined. Since final year undergraduate students are known to be major users of the resources and services of academic libraries because of their heavy academic engagements, it becomes particularly relevant to find out their satisfaction with the available

resources and information services. The review of available literature indicates that this aspect of scholarship has not been sufficiently investigated in Nigerian universities. This exposes a gap in the body of knowledge which is being filled by the present research. The result of this study will therefore provide the vital information for correlation analysis, as it further enriches the growing corpus of literature in user studies.

5. Methodology

The survey research method was adopted for this study while data was collected using a self-developed questionnaire. This customized research instrument is entitled: *Rating Scale for Final Year Students' Satisfaction with Information Resources and Services in Nigerian Federal University Libraries.* This instrument had Likert-type scales where Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1. The validation was done by a University Librarian and a Statistician/Data Analyst while the reliability test with Cronbach Alpha produced a coefficient index of r = 0.86. Respondents were students in the final year of their respective bachelor's degree programmes selected through availability sampling during the 2014/2015 academic session. Two hundred (200) copies of the research instrument were distributed in each of the four (4) universities with the help of volunteer research assistants during the 2014/2015 academic session. Administration of the instrument lasted for two weeks in each institution and accounts for the return-rate of 690 (86.3%). A combination of descriptive and inferential statistics (mean and standard deviation) was used for data analysis while frequency tables were used to present the results. Independent sample t-test was used to ascertain the level of significance at 0.05%. The criterion benchmark for the study is 2.5 mean score. Table 1 shows the distribution and return-rate of questionnaire.

Table 1: *Distribution and Return Rate of Questionnaire*

Institution	Distribution	Return	% Rate of Return
Federal Univ. of Technology, Owerri (FUTO)	200	172	86%
Michael Okpara Univ of Agric (MOUA), Umudike	200	193	96.5%
Nnamdi Azikiwe University, (NAU), Awka	200	170	85%
University of Nigeria, Nsukka (UNN)	200	155	77.5%
Total	**800**	**690**	**86.3%**

6. Findings and Discussion

The analysis is presented in Tables 2-6 while the test of hypotheses is shown in Tables 7 and 8, respectively. The analysis in each table is followed by a summary of findings and brief discussion of the result in line with report of earlier studies.

Table 2: *Mean Analysis of Information Resources Provided by Federal University Libraries (N = 690)*

Information Resources	FUTO	MOUA	NAU	UNN	Total x	Decision
Textbooks (Print)	3.82	3.51	3.85	3.87	3.76	Agree
Journals (Print)	2.50	2.01	2.53	2.61	2.41	Disagree
Electronic texts/Journals	2.11	1.77	2.72	2.33	2.23	Disagree
Reference Materials	2.53	2.51	2.54	2.7	2.57	Agree
Undergraduate Projects	2.22	1.72	2.3	1.54	1.95	Disagree
Postgraduate Theses	2.10	2.32	2.14	2.11	2.17	Disagree
Internet/Online Facilities	2.13	2.25	3.12	2.22	2.43	Disagree
Electronic Databases	2.44	2.1	2.24	2.4	2.30	Disagree
Others	2.12	2.35	2.12	2.23	2.21	Disagree
Grand Mean	**2.44**	**2.28**	**2.62**	**2.45**	**2.45**	**Disagree**

Table 2 analyses the major types of information resources provided by federal university libraries and utilized by final year students. Out of the eight (8) specific information resources listed, the mean scores for six (6) were less than the criterion which signifies disagreement. These resources which were either absent or unavailable are journals (print), electronic documents, undergraduate projects, postgraduate theses, internet/online facilities and electronic databases. Although hard copies of textbooks and reference materials were provided judging by their mean values of 3.76 and 2.57, respectively, the grand mean score of 2.45 for Table 2 implies that respondents (final year students) consider the information resources provided as inadequate. The low mean scores for projects and theses may be a direct result of the fact that access to these materials is restricted in most university libraries in the country as a deliberate strategy to curb plagiarism. A major inference from this result is that libraries in Nigerian federal universities still anchor their services on textual and bibliographic sources which is in line with the submissions of Oyewusi and Oyeboade (2009) and Uganneya et al. (2012). However, the low mean scores recorded for e-documents, internet facilities and electronic databases point to the fact that university libraries in Nigeria are yet to fully migrate to e-platforms. This aspect of the result contradicts the findings of Adeyemi (2014) and Diyaolu et al. (2015) whose separate studies of selected university libraries in Western Nigeria revealed an impressive number of ICT facilities.

Table 3: Mean Analysis of Information Services Provided by Federal University Libraries (N = 690)

Information Services	FUTO	MOUA	NAU	UNN	Total x	Decision
Current Awareness Services (CAS)	3.71	2.8	2.74	3.52	3.19	Accept
Lending services	2.62	3.74	3.1	3.41	3.22	Accept
Photocopying services	2.51	3.13	3.22	3.42	3.07	Accept
Bindery services	2.13	2.01	2.44	2.24	2.21	Reject
Reference Services	3.42	2.83	2.81	3.03	3.02	Accept
Readers' Advisory Services (RAS)	3.14	3.04	2.7	3.41	3.07	Accept
Abstracting/indexing services	2.51	2.13	2.53	2.52	2.42	Reject
Readers' orientation service	3.80	3.41	3.01	3.63	3.46	Accept
Electronic/online services	2.41	2.13	2.22	2.31	2.27	Reject
Book reservation services	2.31	2.10	2.41	2.53	2.34	Reject
Inter-library loan services	2.43	1.32	2.1	2.42	2.07	Reject
Grand Mean	**2.82**	**2.60**	**2.66**	**2.95**	**2.76**	**Accept**

Table 3 shows the rating of information services provided by federal university libraries by final year students. Out of the eleven (11) items listed, six (6) met the criterion mean score while five (5) did not. However, the grand mean of 2.76 indicates that overall, the services provided by these university libraries are considered adequate. Specific information services like CAS, lending, photocopying, reference, RAS (or counseling), and library instruction/orientation have mean scores above the acceptance level. This indicates that these services met the expectations of final year students in the universities surveyed. On the other hand, bindery services, abstracting/indexing, electronic/online services, book reservation and inter-library loan services did not meet the criterion mean score which suggest that they are below the expectations of respondents. The result of this study buttresses the submissions of Anunobi and Okoye (2008) and Okeodion and Anaehobi (2014) to the effect that though libraries in federal universities provide basic information services, some of these are still below the required standard. It is equally necessary to point out that the result in Table 3 concerning online services validates the earlier report in Table 2 that electronic information resources and services are lagging behind in Nigerian university libraries.

Table 4: Mean Analysis of Satisfaction with Specific Resources and Services based on Responses to the following item statements (N = 690)

Satisfaction with Resources/Services	FUTO	MOUA	NAU	UNN	Total x	Decision
Currency of available textbooks	2.51	2.53	2.3	2.13	2.37	Unsatisfactory
Available newspapers and magazines	2.60	2.51	2.71	2.64	2.62	Satisfactory
Photocopying services	2.54	3.1	2.53	2.51	2.67	Satisfactory
Available internet facilities	2.51	2.5	2.11	2.31	2.36	Unsatisfactory
Lighting system	2.24	2.21	2.14	2.23	2.21	Unsatisfactory
Adequacy of Staff	2.54	2.13	2.1	2.5	2.32	Unsatisfactory
Opening and closing hours	2.05	2.12	2.31	2.41	2.22	Unsatisfactory
Referral services	2.14	2.23	2.21	2.24	2.21	Unsatisfactory
Readers' Advisory Services	3.10	2.94	2.65	3.12	2.95	Satisfactory
Number of journals	2.12	1.73	2.41	2.30	2.14	Unsatisfactory
Duration of book loan	2.11	1.71	1.52	1.52	1.72	Unsatisfactory
Current Awareness Services	3.01	2.52	2.62	3.12	2.82	Satisfactory
Library instruction	3.15	3.31	2.91	3.41	3.20	Satisfactory
Binding services	2.12	2.05	2.41	2.31	2.22	Unsatisfactory
Grand Mean	**2.48**	**2.40**	**2.35**	**2.55**	**2.44**	**Unsatisfactory**

Table 4 highlights the level of satisfaction with specific resources and services in federal university libraries. A frequency count of the research instrument shows that only 251 respondents (37.5%) were satisfied with the resources and services provided while majority of them (431 0r 62.5%) were not. The analysis of the responses shows that out of the fourteen (14) items listed, only five (5) items had mean scores that were above the criterion mark. However, the mean values for the nine remaining items were unsatisfactory as they fell below the accepted criterion. Consequently, the grand mean of 2.27 indicates that the majority of the final year students are clearly unsatisfied with most of the resources and services investigated. It is evident that newspapers/magazines, photocopying service, advisory and counseling service, as well as library instruction/user education were considered satisfactory by respondents. However, the more critical resources and services provided did not meet the expectations of majority of the graduating students in these universities. This can be seen in the mean scores for currency of materials, internet facilities, lighting system, adequacy of staff, opening/closing hours, referral services, number of journals, length of book loans and bindery services. This means that though federal university libraries provide textbooks and other reading materials, the volume and level of currency of these resources remain unsatisfactory. Moreover, a closer scrutiny of the result reveals that respondents from specialized universities were comparatively more satisfied than those from conventional universities. However, aspects of the result of this study validates earlier reports that users of university libraries in Nigeria are not fully satisfied with the resources and services provided (Nnadozie, 2008; Shafique et al., 2012; Issa et al., 2015).

Table 5: Mean Analysis of Causes of Dissatisfaction with Library Resources and Services (N=690)

Causes of Dissatisfaction	FUTO	MOUA	NAU	UNN	Total x	Decision
Outdated information materials	2.53	2.51	2.51	2.5	2.51	Agree
Unavailability of needed materials	2.51	3.22	2.8	2.63	2.79	Agree
Unprofessional attitude of staff	3.10	3.51	3.02	3.21	3.21	Agree
Difficulty in locating materials	2.72	2.8	3.01	2.52	2.76	Agree
Location of the library	1.63	2.01	2.03	2.1	1.94	Disagree
Limited access to computer /ICTs	3.23	2.91	3.40	3.11	3.16	Agree
Inadequate reading space	2.32	2.04	1.92	2.03	2.08	Disagree
Inadequate ventilation	2.01	2.1	2.31	2.42	2.21	Disagree
Mutilation of documents	3.13	2.82	3.01	3.41	3.09	Agree
Restricted access to certain documents	3.12	3.11	2.53	3.10	2.97	Agree
Unsuitable opening/closing hours	2.51	2.8	2.4	3.01	2.68	Agree

Limited photocopying services	2.40	2.13	2.40	3.11	2.17	Disagree
Inadequate lending services	2.93	2.74	3.21	2.83	2.93	Agree
Irregular internet services	2.50	2.61	3.03	2.6	2.69	Agree
High cost of internet services	2.53	2.84	2.71	3.13	2.80	Agree
Epileptic power supply	3.22	2.5	2.9	2.81	2.86	Agree
Grand Mean	**2.65**	**2.67**	**2.68**	**2.72**	**2.68**	**Agree**

It can be concluded from Table 5 that majority of the respondents agreed with twelve (12) of the sixteen (16) items listed as the causes for dissatisfaction with library resources and services. This conclusion is confirmed by the grand mean of 2.68 which is above the criterion mark. It is clear that the work ethics of library staff is a major determinant of satisfaction. This reflects in the mean score for 'unprofessional attitude of staff' as one of the causes of dissatisfaction. Other factors responsible for dissatisfaction with library resources and services amongst final year students in federal universities, as indicated in Table 5 are: outdated copies and unavailability of needed materials, retrieval difficulties, and restricted access to certain documents, unfavourable operating hours, limited lending services and inadequate internet services. The high mean value for limited access to computers and ICT gadgets suggests inadequacy of modern information technologies in these academic libraries. There is no doubt that most final year students need information materials/services for assignments, term papers, seminars and project research. The absence or inadequacies of these resources/services will naturally result in dissatisfaction. However, the distribution of items with low mean scores underlines the claim that Nigerian university libraries provide effective photocopying services. It also suggests that final year students have no issues with ergonomics-related factors like location of library, size of reading halls, ventilation and lighting. This is contrary to the result of another study in which these library ergonomic factors were identified by lecturers as responsible for user dissatisfaction (Nnadozie, 2016).

Table 6: *Mean Analysis of Consequences of Dissatisfaction with Resources and Services (N=690)*

Consequences of Dissatisfaction	FUTO	MOUA	NAU	UNN	Total x	Decision
Reduction in patronage of libraries	3.41	2.53	2.74	2.83	2.88	Agree
Negative perception of librarians	2.72	3.12	3.43	3.11	3.10	Agree
Discouragement of others from using the library	2.52	2.71	2.63	3.33	2.80	Agree
Apathy towards the university library	3.10	2.6	3.42	3	3.03	Agree
Favourable disposition towards librarianship	2.10	1.72	2.11	2.3	2.06	Disagree
Enthusiasm to become advocates of libraries	1.91	2.01	2.1	2.34	2.09	Disagree
Increase interest in the services of other types of libraries	1.52	1.34	2.13	1.72	1.68	Disagree
Grand Mean	**2.47**	**2.29**	**2.65**	**2.66**	**2.52**	**Agree**

Table 6 which examined the consequences of dissatisfaction with resources and services provided in federal university libraries shows that out of the seven (7) items raised, respondents agreed with four (4) based on their mean scores. It can be deduced from this result that dissatisfaction amongst graduating students will reduce their patronage of library services. This state of affair will also make them habour negative perception of librarians, discourage other people from patronizing libraries and develop general apathy towards the university library. The grand mean of 2.52 indicates that majority of the respondents agreed with the listed items. This study contrasts with another research report which reported that respondents were satisfied with library resources and services and have developed a positive perception of library effectiveness (Gunasekera, 2010). The consequences of dissatisfaction among final year students are grave bearing in mind that these category of library users form the corps of future administrators, policy-makers, researchers, lecturers and other technocrats. When these young people develop a negative perception of librarianship, it would be difficult for them to be favourably disposed to the profession when they attain positions of influence and authority. The result of this study as presented in Table 6 implies that staff of university libraries should strive to leave a positive impression on graduating students through the provision of basic

working equipments and relevant reading materials. These resources should be complimented with qualitative information services.

7. Test of Hypotheses

HO_1: There is no significant difference in the mean score of final year students' satisfaction with library resources in specialized and conventional federal universities.

Table 7: t-Test Analysis of Final Year Students' Satisfaction with Library Resources in Specialized and Conventional Federal Universities (N=259)

Variables	N	$\overline{x}$	SD	t-cal	df	t-crit	P-value	Remark
Specialized universities	157	2.43	0.14	0.898	257	1.646	0.396	insignificant
Conventional universities	102	2.33	0.20					

P > 0.05

It is necessary to explain that the raw score for the t-tests in Tables 7 *and 8* was the 259 respondents that were satisfied with the resources and services provided in the university libraries under study. An explanation of this can be seen in the analysis of Table 4. Table 7 shows that the t-calculated value is 0.898 while the t-critical value at 5% significance level is 1.646. Since the t-cal (0.898) is less than t-crit (1.646), HO_1 is accepted. This test produces a 95% confidence that there is no significant difference in the mean score of first year students' satisfaction with library resources in specialized and conventional federal universities in Nigeria. This implies that the newer specialized universities in Nigerian are not significantly more equipped in terms of library resources than the older conventional universities. That explains the absence of any remarkable difference in the level of satisfaction amongst graduating students in both sets of universities.

HO_2: There is no significant difference in the mean score of final year students' satisfaction with library services in specialized and conventional federal universities.

Table 8: T-Test Analysis of Final Year Students' Satisfaction with Library Services in Specialized and Conventional Federal Universities (N=259)

Variables	N	$\overline{x}$	SD	t-cal	df	t-crit	P-value	Remark
Specialized Universities	146	2.45	0.51	0.050	257	1.646	0.961	insignificant
Conventional Universities	113	2.46	0.48					

P>0.05

Table 8 shows that the t-calculated value is 0.050 while the t-critical value at 5% significance level is 1.646. Since the t-cal (0.050) is less than t-crit (1.646), HO_2 is accepted. The conclusion is that there is a 95% confidence that there is no significant difference in the mean score of final year students' satisfaction with library services in specialized and conventional federal universities. This implies that conventional universities in Nigeria are not significantly better than specialized universities in terms of library services. The similarity of library services in both types of federal universities accounts for the lack of any striking difference in the level of satisfaction amongst graduating students from these universities.

8. Conclusion and Recommendations

The findings of this study provide insight into the level of satisfaction by final year students in relation to the effectiveness of library resources and services provided in Nigerian university libraries. The students' level of satisfaction seems to be influenced by the adequacy of information services. Furthermore, the effectiveness of library services provided is hindered by factors such as lack of

access to computers and ICT facilities, inadequate internet services, inadequate infrastructural facilities, inadequate photocopying facilities, as well as, poor attitude of library staff. No doubt, various resources and services are provided but there is a gap in the provision of resources that has to do with the electronic environment. This explains the low level of use of online information resources. The test of hypotheses showed that final year students from the specialized universities were more satisfied than those from the conventional universities. Conclusively, if the level of satisfaction with resources and services provided in university libraries in the study location must increase, there is need for a shift from traditional library services to ICT and other electronic-driven services.

The following recommendations are put forward as measures for addressing the challenges in order to improve satisfaction amongst graduating students in federal universities:

i. *General upgrade of basic infrastructural facilities*: University libraries cannot function effectively without some basic facilities. This study shows that most of these facilities are either inadequate or totally lacking. Infrastructural facilities like good shelves and air conditioners should be provided in the right quantity and quality for Nigerian university libraries. The regulatory bodies should pay attention to the accommodation sizes in these university libraries, as well as the suitability of available reading tables, chairs and other furniture. Again, a more reliable alternative source of power (maybe a standby generator) should be provided for each of these libraries since the public source of electric energy has proved most unreliable in recent years.

ii. *Provision of access to ICT facilities*: The management and administrators of various university libraries in Nigeria should ensure that all ICT facilities that enhance the full functionality of the computer should be made available in university libraries. It is not enough to have these modern information technologies, it is imperative that they are accessed and utilized optimally by graduating students. Going by Ranganathan's *Laws of Library Science*, if books are for use and each reader should have the book that meets the specific need; it presupposes that in the present ICT era, *computers should not only be made accessible, they should be put to effective use,* especially by library patrons. Concerted efforts should be made to ensure that genuine and complete equipment are procured and installed because incomplete and dysfunctional ICT accessories are as good as not having them at all.

iii. *Partnering with critical services providers:* The management of university libraries in collaboration with the parent institution should liaise with the book vendors, ICT merchants and journal subscription agents for the supply of current books and journals, as well as installation computers and allied gadgets at favourable payment terms and conditions. Internet Service Providers (ISPs) with proven record of delivering quality services at moderate fees should be approached for partnership agreement. These collaborative initiatives would ensure that quality services are provided in order to enable the graduating students take full advantage of accessing electronic information resources (EIR) as they contend with their various academic engagements. This is the only way out for university libraries as they struggle for relevance and sustainability in an era of diminished funding.

iv. *Diversification of reprographic facilities*: Reprographic services provided by university libraries should not be limited to photocopying of documents. Rather, modern reprographic equipment such as printers, scanners, memory cards, flash drives, etc. should be made available to clients of Nigerian university libraries. This will make it easier for users to print downloaded information materials or copy and transfer same to their personal laptops within these libraries. In addition, the existing university binderies should be upgraded with state-of-the-art tools of the trade. The implementation of these innovations would not only enhance user

satisfaction amongst final year students, the revenue generation capacity of university libraries in Nigeria would be enhanced.

v. *Re-orientation of library staff:* Periodic re-orientation and in-house training programmes should be packaged for the various cadres of staff that work in Nigerian university libraries. The management staff and other senior officials should let their professionalism show in the general comportment, especially in the discharge of their various assignments. These steps would help to improve their attitude of staff, across all strata, in the provision of library and information services within different university libraries.

vi. *Proper funding of Nigerian university libraries:* At the root of the failings of university libraries in Nigeria is the issue of inadequate funding. Not only should the budgetary allocation for library services in universities be increased, the fund so approved should be released as and when due. When this is done, these libraries would then have the necessary financial resources to procure basic facilities, diversify their services and maintain basic equipment. Improved funding will definitely enhance the ability of Nigerian university libraries to deliver specific services targeted at special user-groups like final year students.

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