HOMOPHILY-HETEROPHILY AND INFORMATION LITERACY AS CORRELATES OF EFFECTIVE REFERENCE SERVICES IN UNIVERSITY LIBRARIES IN NORTH- CENTRAL NIGERIA

BY

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ABSTRACT

This study examined homophily-heterophily and information literacy as correlates of effective reference services in university libraries in North- Central Nigeria. Descriptive design of correlational type was adopted. Multi-stage sampling procedure was used to stratify the universities into federal, state and private universities. Random sampling technique was used to select nine universities. Proportionate sampling technique was used to select 1,500 (1.21%) of undergraduates out of 123,950 undergraduates. The self-developed instruments used were: Effective reference Services (r = 0.95), Homophily-Heterophily (r = 0.91), Information literacy (r= 0.86). Data were analysed using Pearson's product moment correlation and Multiple regression at 0.05 level of significance. There were significant positive relationships between effective reference services delivery to undergraduates and homophily-heterophily. Homaphily-heterophily (r = 0.98), information literacy (r = 0.95). There was a significant composite contribution of the independent variables to effective reference services delivery ($F_{(3,1496)}$ = 19.31; $R^{2 =} 0.57$) Relatively its (β =0.03, t= 4.13) and(β= 0.01, t = 3.20). Interviews revealed Reference services in the university libraries were not effective as most students were not aware of these services in their libraries. Homophily-heterophily and information literacy influenced effective reference services to students in the university libraries in North Central Nigeria.

Keywords*:   Reference services, Homophily-heterophily, Information literacy, North- Central --- Nigeria, University libraries.*

INTRODUCTION

A university is established for the purposes of teaching, learning, research and community service. As a tertiary institution, the university offers a variety of courses leading to the award of certificates, diplomas, bachelors and post-graduate degrees. The university is generally regarded as a custodian of knowledge where every student, especially the undergraduates acquire knowledge in various disciplines. This knowledge is usually in various disciplines for self- development, which in turn prepares them for future roles in the society generally.

These functions of the universities can be adequately achieved when students are involved in taking class assignments, writing of term papers, projects and other academic research work in other in order to assess their level of understanding of the teaching and learning exercise. However, these feats would be achieved when these undergraduate students accustom themselves to the use of the university libraries. The university library is the principal instrument of the university in the conservation of recorded knowledge. Proper fulfilment of this role provides a sound basis for the transmission and advancement of knowledge.

The university library is a service organisation and the users have of necessity to be the central focus. Adequate services should be rendered by the library staff to support the intellectual, cultural and technical development of the undergraduates enrolled in the Nigerian universities. The section of the library that gives direct personal assistance to users in their quest for information is the reference section. Reference services are direct personal assistance to users in their quest for information that will lead them to knowledge. Reference services are undertaken to either provide or locate answers for the user. The answers may be limited or extensive, actual or citations to the information leading the user to other sources, human or material which will provide the necessary information. Reference services could range from

very simple questions that take little time to very complex questions that demand the expertise and various search strategies of the reference librarian.

TheUniversity libraries Nigeria provide reference services to support the curriculum. Some of the activities in reference section are (ii)Instruction in subject headings and classification, Searching both manual/computerised catalogues, Use of reference materials, CD-ROM databases, using microform equipment, assignments, instruction that ends with a theoretical/practical test etcetera. Selective dissemination of information services (SDI), bibliographic verification searches, indexing and abstracting are all carried out in the reference section.

Provision of effective reference services is very necessary and it involves involves supportive duties and actions, from selection of materials to adequate space and personnel. (Senna, 2003; Aina, 2004). Reference services also involve providing instruction on the use of library resources, through user education. It also includes all the functions performed by the reference librarian to meet the information needs of users in person, by telephone, or electronically including but not limited to answering substantive questions at the reference desk. The reference librarians instruct users on the selection and use of appropriate reference tools for finding information. They conduct researches on behalf of the users and direct users to the location of library resources, and assist in the evaluation of information, and refer them to resources outside the library when appropriate. They keep reference statistics and participate in the development of reference collections (Reitz, 2004; Fabunmi, 2010).

Information communication technology (ICT) has greatly impacted on reference services delivery to make it more effective. Onwukanjo (2015) citing Krubu and Osawaru (2011) believes IT has revolutionised access to information retrieval in the university libraries in Nigeria. The introduction of various (1CT) trends has led to reorganisation, change in work pattern, and demands for new skills, job retraining and reclassification positions. The electronic data base, online services, CD-ROMS, and the advent of the internet has radically transformed access to information in Nigeria. This is because online catalogue terminals, indexes and abstracts on CD-ROM work stations allow users to search data bases in their entirety. This saves the users the task of searching numerous catalogue drawers or annual volumes of printed indexes. Some reference librarians in Nigeria and now answer reference

questions by email and this boosts the competence of the librarian before their users. University libraries are using modern ICTs for their core functions, implementing effective and efficient library cooperation, and resource sharing networks, implementing management information systems, developing institutional repositories of digital contents, and digital libraries, and initiating ICT based capacity building programmes for library users.

The reference librarian must offer services that would attract users at all times. He should be amicable and approachable at all times, must have the desire to help the enquirer at all times, should be empathetic, resourceful and attentive among other qualities. He must have a high degree of bibliographical knowledge or broad subject knowledge, adequate knowledge of reference tools, keen analytical mind, flexibility of mind and the right psychological approach to information. He must be a person of intellectual depth and breath, who has the ability to keep users at ease. He must have an equable temperament so as to be able to always keep patrons at ease irrespective of their ages and temperaments, and must have the ability to communicate with different types of users. He must have the ability to decide at what stage to stop searching the resources of his library, and to resort   to outside resources or even engage in referral services for   his users (Clarke, 1997; Nwalo, 2000; Aina, 2004; Fabunmi, 2010, Ezeala and Yusuf, 2011).

For maximum effectiveness in reference services delivery, there must be a reference interview between the reference librarian and the library patrons. According to Mc–Daniels and Ohles (1993), as cited by Onwukanjo (2017) An effective reference librarian should be able to conduct a good reference interview and produce satisfactory result. He must possess all the good qualities expected of a reference librarian, as such would impact on his performance. Efficiency is a limited concept that is concerned about the internal workings of the organisation, as against effectiveness which is a broad concept that takes into account a conglomeration of factors and criteria both inside and outside the organization. Efficiency is measured as the ratio of inputs to outputs; therefore, it refers to the ways in which resources are put to use. Onwukanjo (2015) citing (Narayana and Rayane, 1997). According to Millet (2009), being effective in its simplest terms, means having the internal and external processes that lead to the desired end result. It means having the means to produce the desired effect

in reference services which is maximum user satisfaction. In the same vein, Drucker (2006) posit that effectiveness implies causing the desired or intended result. It means doing right things and selling right targets to achieve an overall goal, and achieving your worthwhile goals that support your vision and mission. Management effectiveness relates to getting the right things done. The effectiveness of reference services could be influenced by information literacy. The reference staff in the university library must have very high degree of information literacy skills, so as to render effective reference services. According to the American Library Association (1989) as cited by Ojedokun (2007).

> To be information literate a person must be able to recognize when information is needed, and have the ability to locate, evaluate, and use effectively the needed information.   Ultimately, information literate people are those who have learned   how to learn. They know how to learn because, they know how information is organised, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they always find the information needed for any task or decision at hand.

This ability to evaluate and use information, is a prerequisite for lifelong learning and a basic requirement for the information society. It is a holistic interactive learning process. The concept of information literacy presupposes that an individual recognizes the need for information, and knows how to find, evaluate, and subsequently use information effectively to solve particular problems or to make decisions. Again, being information literate requires knowing how to clearly define a subject of interest, of investigation, and select the appropriate terminology that expresses the concept or subject, formulate search strategies, that takes into consideration different sources of information, and the various ways, their information is organised, analysed, and data collected for value, relevance, suitability and subsequently turned information into knowledge (Brevi; Babera, 1994).

Other integral components of information literacy are computer literacy and library literacy.

Computer literacy is a technology of how to manipulate computer hard ware and software, while

library literacy is the ability to use library collections and its services although there is a strong

relationship among all these concepts. Citing Gilton(1994) Onwukanjo 2017 assert that

> "Each of these literacies or competences require some level of critical thinking, but compared with computer literacy, information literacy goes beyond merely having access to knowledge of how to use the technology because technology alone does not guarantee quality learning

experience. Compared with library literacy, information literacy is more than searching through an online catalogue or other reference materials because it is not a technique but a goal for learners."

Libraries are service organisations and it is the information resources that determine their quality. Hermon and Nitech (2009) posit that service quality includes three areas (a) resources, information resources/content, (b) service environment and resource delivery, this bothers on effectiveness like reference services effectiveness; (c) service delivered by staff, which bothers on staff that is information literate and takes into recognition homophily–heterophily consciousness. Rehman and Shafiq (2011) corroborated the assertion by positing that the extent to which user needs are promptly satisfied is dependent on the size and quality of library collection, (the adequacy of the collections, organisation of the collections, the usefulness of the bibliographic tools (indexes and abstracts) providing access to the collections and the ability and willingness of staff to exploit these resources based on their level of information literacy and their homophily-heterophily consciousness in communication transactions

All these assertions need to be empirically clarified in Nigerian university libraries. That is why the researcher embarked on a study of this nature to investigate how homophily-heterophily information literacy would correlate effective reference services delivery in the university libraries in North- Central Nigeria. In the same vein previous studies like Pindlowa (2002), Fabunmi (2010), had concentrated on staff quality and effective reference services delivery. Oyediran- Tidings (2004) and Ugah (2007) dwelt on availability of information resources vis-avis reference services, while Ojedokun (2014) dwelt on information literacy and reference services. There is dearth of studies on combined effect of some of the variables in Nigeria especially on homophily- heterophily which could succinctly be said to be the extent to which the reference librarian's characteristics or behavioural qualities match with the users' characteristics or individuality. This is the gap that the study intends to fill. Therefore, this study investigated how homophily-heterophily and information literacy would correlate effective reference services delivery in the university libraries in North- Central Nigeria.

Conceptual framework

There are three constructs in this study. They are; homophily- heterophily, Information literacy and effective reference services. In the conceptual model figure (1) the variables are graphically presented and shown as being related and interdependent, indicating that each independent variable has a relationship with effective reference services. This could be so because the variables could collectively enhance effective reference services. The units of analysis, treatment

of data and rendering of research findings, recommendations and summary as a matter of fact be reflective and predicated on the constructs in the conceptual model.

Homophily-heterophily refers to the way individuals interact with one another based on similarity or dissimilarity in certain attributes. The attributes that lead to homophily are demographic characteristics like age, education, socio-economic status, attitudes, beliefs, and values. The degree to which people differ in these attributes is the heterophily between them, (Rufner and Burgon, 1988; Lovin and Cook, 2001; Elliot, 2007; Bowik, (2008). The authors posit that homophily–heterophily factors are factors that originated from communication arts and communications research, social network analysis where the source and receiver relationships are the units of analysis.

Homophily-Heterophily factors originated from disciplines like the communication arts, psychology, sociology, social network analysis, and now have implications for researches in library and information sciences, especially in information communication in libraries. It has become more pertinent to work with these factors in information communication in libraries as it has to do with

beliefs, values attitudes, and other demographic peculiarities between the source of information and receiver of information, which would bring about a change in behaviour. Onwukanjo (2011). This change in behaviour as far as this study is concerned would be as a result of satisfaction derived from effective reference services delivery. This means that the consciousness of such demographic peculiarities that are reflected in homophily-heterophily, affect source of information and receiver of information in reference service transaction and makes it pertinent for the reference staff to employ his skill of homophily-heterophily consciousness to deliver effective service to his users.

Homophily- heterophily had been applied in previous studies by Burgon and Ruffner (1988) in his study on human communications in communication arts where it was discovered that human interactions can only be successful with the consciousness of homophily- heterophily factor. Homophily-heterophily had also been applied in studies of Burkeman (2009), titled Birds of the same feather homophily where, homophily –heterophily was very necessary for human relationships. Bowik (2008) corroborated the views of all the afore-mentioned authors in his study titled Homophily-heterophily in social networks, which dwelt on social network analysis and patterns of social relations and social structures as networks of connections among individuals and groups.

Effective reference services in any university library cannot thrive without the consciousness of homophily-heterophily concepts on the part of the reference librarians.

The reference librarian and his staff have been entrusted with the task of assisting users exploit the library's stock of accumulated wisdom of mankind. Nwalo (2000) and Aina (2004) opined that no

matter how well and systematic the materials are organised, no matter how good the catalogue is, personal assistance to users in exploiting information resources is essential. The reference librarian is a link between the information and the user therefore, the homophily-heterophily factors have serious implications for reference services in libraries. This is because the search strategy consists of steps the reference librarian would use in supplying the required information. He would first analyse and clarify the query; identify the type of reference service; and identify the information source to use. This means that the success of the reference transaction process depends on how well the two parties have cooperated during this transaction.

Lending support to the foregoing, Nwalo, (2000); and Aina, (2004) all observed that if every user were to formulate his questions clearly, half of the problem would have been solved, but many users have vague ideas of what they want or need and might mislead the reference librarian into providing an unacceptable answer. This could be as a result of many factors like doubt on the ability and competence of the librarian, inferiority or superiority complex, limitations of language, limitations of users' knowledge by the librarian, lack of proper communication skills, attitude of the librarian to the user, notion of the reference librarian. All the foregoing factors that could impede effective reference services are hinged on the homophily-heterophily factors which shows the extent to which interacting individuals are similar or dissimilar in certain attributes. With homophily-heterophily consciousness, the reference librarian as observed by Carke (1997) and others should have the right psychological approach to all information seekers. For instance, a homophilous reference librarian may always empathise to a heterophilous user, so that the heterophilous user would give out successful reference transaction interview. This would enable the homophilous staff draw out all the clarification and information he needs, articulate his needs and help him out, for example if the patron is a stammerer who cannot even articulate his questions properly.

The effectiveness of reference services in any university library depends strongly on the reference staff's communication competence which engenders homophily. Homophily is necessary for effective reference services because reference staff are the means by which effective reference services are provided. Though Homophily- heterophly concerns the interaction between the users and staff of the reference department, this study has measured it from the user approach. Every service in the library ought to be user – centred. Therefore, any measurement of effectiveness of a service needs to be done from the user s point of view for an objective result to be produced.

Effective reference services which is the dependent variable will depend on all the independent variables. All the independent variables of homophily-heterophily and information literacy would positively impact on the dependent variable which is reference services which is the crux of the study. Homophily-heterophily consciousness would make the undergraduate users feel important, because of abundant empathy involved. This would make the reference transaction process flow smoothly, and the result is effective reference services, which would project the library positively before the university management. When all the undergraduates attended to become independent users of the library, they would graduate with good grades and the problem of unemployable Nigerian graduates would stop. This would project the image of the library in particular positively, and that of the university too.

Each of the independent variables has direct relationship with effective reference services because they would all encourage effective reference services which would bring about graduate students who are independent lovers of knowledge, would graduate with excellent grades, and bring an end to the problem of educational imbalance and academic maladjustment. Graduates who are employable in Nigeria and abroad, who would abolish the half -baked graduate syndrome.
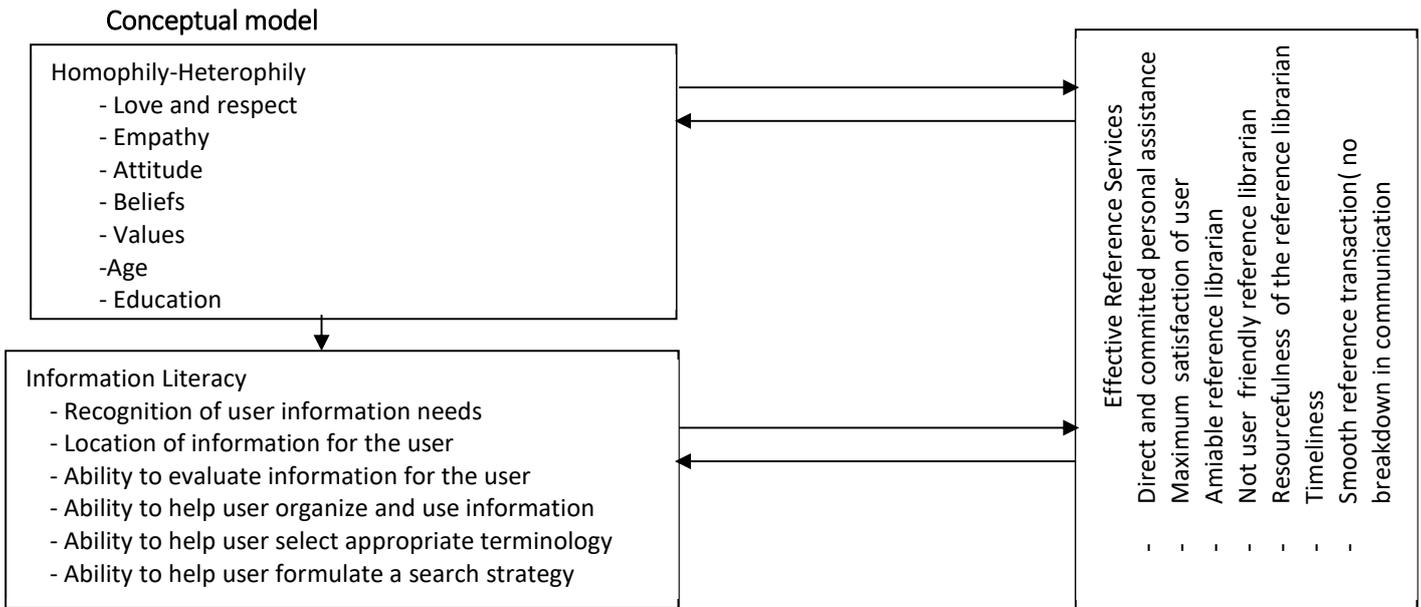
Conceptual model

| Homophily-Heterophily
- Love and respect
- Empathy
- Attitude
- Beliefs
- Values
-Age
- Education | Effective Reference Services
- Direct and committed personal assistance
- Maximum satisfaction of user
- Amiable reference librarian
- Not user friendly reference librarian
- Resourcefulness of the reference librarian
- Timeliness
- Smooth reference transaction(no breakdown in communication |

Information Literacy
- Recognition of user information needs
- Location of information for the user
- Ability to evaluate information for the user
- Ability to help user organize and use information
- Ability to help user select appropriate terminology
- Ability to help user formulate a search strategy

Fig. 1: Conceptual model of effective reference services

Source: Self constructed (2016)

Statement of the Problem

The Nigerian universities are expected to train high academic quality under graduates who would eventually metamorphose to high academic quality graduates needed for socio-economic development. Non usage and under-utilisation of university libraries because of lack of effective reference services has serious negative implications for the quality of undergraduates, who eventually become graduates that are churned out by the universities in Nigeria.

Non-application of the homophily-*heterophily* knowledge and skills in reference services transactions, low level of information literacy, may impinge on effective reference services delivery. The Nigerian universities are expected to train high academic quality under graduates who would eventually metamorphose to high academic quality graduates needed for socio-economic development. Non usage and under-utilisation of university libraries because of lack of effective reference services has serious negative implications for the quality of undergraduates, who eventually become graduates that are churned out by the universities in Nigeria.

Non-application of the homophily-*heterophily* knowledge and skills in reference services transactions, and   low level of information literacy, could result in ineffective reference services delivery. It is on this note that the researcher investigated homophily-heterophily, and information literacy as correlates of effective reference services   in university libraries in North Central Nigeria.

Objectives of the study

The broad objective of the study is to investigate the variables of homophily-heterophily and information literacy on effective reference services in university libraries in Nigeria. The specific objectives are to:

1. find out the perception of undergraduates on effectiveness of reference services in the university libraries in North Central Nigeria;
2. identify the homophily-heterophily consciousness of the reference librarians;
3. find out the ratings of undergraduates as regards the information literacy competences of the reference librarians in North-Central Nigeria
4. Find out the composite contribution of the independent variables of homophily-heterophily, information literacy, on the dependent variable (effective reference services)

5 examine the relative contribution of the independent variables of homophily-heterophily and information literacy, on the dependent variable (effective reference services)

Research questions

1. What are the perceptions of undergraduates as regards reference service effectiveness in the university libraries of the North - Central Nigeria?
2. Are the reference librarians in North - Central Nigeria homophily-heterophily conscious?
3. What are the ratings of the undergraduates as regards the information literacy competences of the reference librarians North - Central Nigeria?

Hypotheses

The following null hypotheses were tested in the study at 0.05 level of significance:

1. There is no significant relationship between homophily-heterophily of reference librarians and effective reference services delivery to undergraduate students in the university libraries in north central Nigeria.
2. There is no significant relationship between information literacy competences of staff and effective reference services delivery to the undergraduates of the university libraries in North Central Nigeria.

3. There is no significant composite contribution of the independent variables on the dependent variable.
4. There is no significant relative contribution of the independent variables (homophily-heterophily concept, and information literacy on the dependent variable (effective reference services in the university libraries).

Methodology

Research design

This study adopted the descriptive design of the correlation type. Nwaogu (1991), states that this type of study seeks to establish the relationship that exists between two or more variables. Usually such studies indicate the direction and magnitude of the relationship between the variables. The researcher has no intention to manipulate any of the variables but will study the effect of the independent variables on the dependent variables.

Population of the study

The population of the study comprises all the regular and full time university undergraduates in the twenty-one (21) universities in the North Central Nigeria. North Central Nigeria consists of the seven states situated geographically in the middle belt region of the country, spanning from the west, around the confluence of the River Niger and the River Benue. The region itself is rich in natural land features, and boasts some of Nigeria's most exciting scenery. The region is also home to many historical and colonial relics.

The total number of undergraduate in North central Nigeria is one hundred and twenty-three thousand, nine hundred and fifty (123,950) students, according to ICT and Admissions Offices of the various universities. (2015-2016)

Sampling technique and sample size

Multi-stage sampling procedure was used to stratify the universities into states and federal universities. At the second stage, simple random sampling technique was used to select four states and four federal universities in the North- Central Nigeria out of twenty –one universities. Simple random sampling technique involves balloting where the elements are listed on small sheets of paper and wrapped to select the desired number or sample size. According to Aina (2004) everybody in the population is given a chance be part of the sample. The third stage involved purposive selection of a privately owned university in Abuja to serve as representative of other private universities in the zone, making a total of

nine universities. Choosing nine (9) out of twenty-one (21) universities was very representative because the percentage was 42. 86%. Next, proportionate sampling technique was used to select 1.21% of undergraduates. Stratified sampling technique was again employed for selecting the respondents according to their strata   or levels of study.

Also purposive sampling method was adopted to select two faculties from each of the universities. The technique was also used to select two departments from each of the two faculties. Purposive sampling method was considered appropriate because of the need to study homogenous population in terms of departments common to all the selected faculties. In purposive sampling, the researcher handpicks certain groups or individuals for their   relevance to the issue being studied. The advantage is that information is got from the respondents who are crucial to the study (Aina, 2001 and Nwaogu, 1991).

The sample size of this study would be 1500 of the 123,950 full time regular under graduate students of North Central Nigeria. The sampling fraction used for selecting the sample from 123, 950 students was 1.21%. This gave the researcher 1500   undergraduate students selected from the nine universities. The students for each university were selected through   proportionate sampling technique. The sample size of 1500 students was considered adequate and representative of the whole population, especially considering the fact that the population is a homogenous population of regular undergraduate students. Secondly, scholars like Jeeves (2010) states that for a population of fifty thousand (50,000), three hundred and ninety-seven (397) representing 0.79% could be used as sample. In the same vein, Onwukanjo (2017), citing Krejcie and Morgan (1970) state that for a population of 200,000, a sample of 384 representing 0.19% could be used. Based on these assertions, the researcher considered 1500 (1.21%) of 123,950 of the study population appropriate and representative of the larger population of the present study.

Accordingly, the sample size of 1500 of the 100-500 level undergraduate students were selected by proportionate sampling method from the nine universities for the study. This sample size of   1500 were shared based on the individual universities involved in the study, that is, the university that has more population of students gets larger proportion of the samples than those that have less population size of students. Proportionate Sampling according to Jeeves (2010) is a sampling strategy, or a method for gathering participants for a study used when the population is composed of several subgroups that are vastly different in number.

Stratified sampling technique was used for the selection of the   undergraduate students according to their levels, or strata. That is 100-500 level students. Stratified sampling technique is ideal

to address the heterogeneity introduced in the sample population as a result of their different academic levels.

Research instruments

The questionnaire was the research instrument that was used for this study. The questionnaire is designed under three different names known as effective reference services questionnaire, (ERSQ), Homophily-heterophily questionnaires (HM-HTQ), and Availability of

Information Resources questionnaire(AIRQ). This questionnaire was the main instrument for data collection.

Validity and reliability of the instruments

The Cronbach Alpha method was used to determine the reliability coefficients of the instruments. The values obtained was 0.95 for Effective Reference Services Questionnaire (ERSQ), 0.91 for Homophily-heterophily Questionnaire (HM-HTQ) 0.86 for Information Literacy Questionnaire (ILQ).

Method of data analysis

The data in the study with respect to research questions were analysed using descriptive statistics of percentages, mean and standard deviation, while the inferential statistics of Pearson product moment correlation coefficient and multiple regression were used for different purposes. Pearson product moment correlation was used to determine the relationship between the variables, while multiple regression was used to predict or determine the effect of the independent variables to the dependent variable. The socio-demographic information was also analysed using descriptive statistics of frequency counts and percentages.

Analysis of research questions

Results from analysis of the research questions are hereby presented in the order of the research questions as follows: Three research questions were answered in this study, to find out the correlations of all the independent variables to the dependent variable. The results are presented in order of the research questions.

Research question 1: What are the perceptions of the undergraduates on reference service effectiveness in the university libraries of the North Central Nigeria?

In order to determine how effective, the reference services given to the undergraduates are, the respondents were asked to identify with some questionnaire statements that could reveal effectiveness and maximum satisfaction. The findings are presented in Tables 1

Table 1: Frequency Table Showing effectiveness of reference Services to the undergraduate students

Table 1   Effective reference services to the undergraduate students

S/NO	Statements	Very Often frequency /percentage (3)	Often frequency /percentage (2)	Occasionally Frequency/percentage (1)	Never Frequency/percentage (0)	Mean _ X	Standard Deviation
1.	How often do you visit the reference services section of the library	_	446 (29.7%)	1054 (70.3%)	_	2.70	.45
2.	Do the staff give you satisfactory services?	_	250 (16.7%)	1250 (83.3%)	_	2.70	.45
3.	Are you assisted in surfing the web?	_	496 (33.1%)	1004 (66.9%)	_	2.68	.46
4.	Are you assisted in online searches and retrieval?	_	475 (31.7%)	1025 (68.3%)	_	2.68	.46
5.	Are you assisted in consulting the fact books / monographs?	_	276 (18.4%)	1224 (90.3%)	_	2.67	.67
6.	Are your reference enquiries always met efficiently and adequately?	__	389 (25.9%)	1111 (74.1%)	_	2.67	.46
7.	Are the reference assistances given to you adequate in quality and quantity for your intellectual and academic growth?	__	346 (23.1%)	1154 (76.9%)	__	2.66	.47
8.	Generally do the reference transactions go smoothly?	_	472 (31.7%)	1028 (68.3)	_	2.67	.47
9.	Overall, would you consider reference services offered by your library as effective	_	50 YES	1450(97%) NO	_	2.67	.48

From Table 1 the students' responses show that all of the questionnaire statements that reveals maximum reference services effectiveness and user satisfaction, all had high mean scores. Their high mean score is above 1.5 on the four point Likert Scale, where very often is 3, often is 2, occasionally is 1 and never is 0, that is the addition of 3,2,1,0 is 6. When 6 is divided by 4 it is 1.5. That is how 1.5 is the bench mark mean score therefore any mean score above it shows ineffectiveness. Unfortunately,

all the questionnaire items had high mean scores above 1.5All the 9 items had high mean scores which are above the 1.5 bench mark on the four point Likert Scale. This is a clear case of in effectiveness on the part of reference services delivery, as much as 1450 respondents (97%) indicated and said NO that generally reference services given to them were not effective.

Secondly, the results from Table 1 shows that the reference services to the undergraduate students in the university libraries in North Central States of Nigeria are occasionally effective. This is shown in Table 1 as the highest number of respondents in the 9 item questionnaire indicated that reference services were not effective.

Research question 2: Are the reference librarians homophily-heterophily conscious?

In order to ascertain the homophily-heterophily consciousness of the reference librarians, the respondents were asked to respond to some statements that revealed absence of homophily-heterophily consciousness or non-practice of the homophily concept. The findings are presented in table 2.

Table 2: Homophily-heterophily table (HM-HT Q) for undergraduate students

S/No	Statements	SA frequency /percentage((4)	A frequency /percentage 3	D Frequency /percentage 2	SD Frequency /percentage 1	Mean $\bar{X}$	STANDARD DEVIATION
1.	The reference staff is uncooperative in attending to you because he feels you are not a match educationally.	780 52.0	610 40.7	80 5.3	30 2.0	3.43	.68
2.	The reference staff is rude to you because he feels that you are of low socioeconomic status.	241 16.1%	1004 66.9%	149 9.9%	106 7.1%	2.92	.73
3.	The reference staff is unfriendly because of the apparent differences in religion.	210 14.0%	1030 68.7%	178 11.9 %	82 5.5%	2.91	.68
4.	The reference staff shows antagonism because of the differences in socioeconomic status	272 18.1%	1014 67.6%	153 10.2%	61 4.1%	2.99	.66
5.	The reference staff cooperates in the reference transaction process because both of you have similar dress codes.	275 18.3%	1050 70.0%	108 7.2%	67 4.5%	3.02	.65
6.	The reference staff show antagonism because of the differences in dress code e.g Islamic dressing	253 16.9%	954 63.6%	136 9.1%	157 10.1%	2.87	.81
7.	The reference transactions go smoothly because the reference librarians and students have the same native language.	780 52.0%	610 40.7%	80 5.3%	30 2.0%	2.67	.47
8.	The reference transactions go smoothly because of the reference librarians ideological leaning	749 49.9%	609 40.6	93 6.2%	49 3.3%	3.37	.74
9.	In another vein, the reference staff is unfriendly, antagonistic, insensitive and uncaring, rude and disrespectful, antipathetic, harsh and haughty.	692 46.1%	645 43.0%	85 5.7%	75 5.2%	3.30	.79

From table 2, the student's responses show that all of the 9 item questionnaire statements that reveal absence or unconsciousness of homophily-heterophily   all have high mean scores. Their high mean score was above2.5 on the four point Likert Scale, where very strongly agreed is 4, Agreed is 3, Disagreed is   2, and strongly disagreed is 1, that is the addition of 4,3,2,1 is 10. When10 is div ided by 4 it is 2.5. That is how 2.5 is the bench mark mean score therefore any mean score above it shows absence or unconsciousness of homophily -hetrophily. Unfortunately, all the questionnaire items had high mean scores above 2.5, These high mean scores reveal absence or un consciousness, or non-practice of the homophily-heterophily concept.

Secondly a majority of the respondents either agreed or strongly agreed to all the questions that revealed absence, un consciousness, or non- practice of the homophily-heterophily concept. All these in clear and concise terms, translate to   absence or un consciousness, or nonpractice of the homophily-heterophily concept in reference services delivery.

Research question 4: What are the ratings of the undergraduates as regards the   information literacy competences of the reference librarians, (Reference Staff)

The respondents were made to react to all the questions that revealed high information literacy skills of reference staff. The findings are presented in table 3

Table 3: Undergraduates rating of the Information literacy competence of staff (ILSQ)

S/NO	STATEMENTS	Very Often frequency /percentage (3)	Often frequency /percentage (2)	Occasionally Frequency /percentage (1)	Never Frequency/ percentage (0)	Mean $\bar{X}$	Standard Deviation
1	Do the staff recognize that you need information ?	100 6.7%	451 30.1%	908 60.5%	41 2.7%	3.18	.66
2	Do the staff have the ability to locate your information?	92 6.1%	461 30.7%	907 60.5%	57 3.8%	3.20	.63
3	Do they have the ability to evaluate the information?	92 6.1%	468 31.2%	896 59.9%	37 2.5%	3.20	.66
4	Do they have the ability to guide you in using the information effectively?	92 6.1 %	452 30.1%	899 59.9 %	57 3.8%	3.16	3.1
5	Can they help you organise and use information from a variety of sources?	28.2 13.5	423 28.2%	792 52.8%	83 5.5%	3.04	.79
6	Do they help you clearly define a subjects area of interest or investigation?	51 3.4%	494 32.9%	935 62.3 %	20 1.3%	3.27	.58
7	Do they help you select the appropriate terminology that expresses the concept?	73 4.9%	435 29.0%	952 63.5	40 2.7%	3.20	.64
8	Do they formulate a search strategy that takes into consideration, different sources of information and various ways of organizing them?	72 4.8%	559 37.3%	851 56.7%	18 1.2%	3.30	.61
9	Can they turn information into knowledge	44 2.9%	449 29.9%	950 63.3%	57 3.8%	3.19	.66
10	Can they evaluate the credibility of information in the webpage?	65 4.3%	376 25.1%	1032 68.8 %	27 1.8 %	3.17	.58

11	Do they help you use the computer in your university library ?	169 11.3%	280 18.7%	978 65.2%	73 4.9%	2.98	.70
12	Do they help you access any of the following sources for research and academic advancement:						
	---print materials in the library	106 7.1%	519 34.6%	813 54.2%	62 4.1%	3.20	.73
	---electronic materials in the library	151 10.1%	527 35.1%	735 49.0 %	87 5.8%	3.13	.81
	---databases in the library both (CD-ROM and online)	82 5.5%	511 34.1%	872 58.1%	35 2.3%	3.48	.70
	--www in the library(internet)	92 6.1%	677 45.1%	711 47.4%	20 1.3%	3.36	.65
13	Do they assist you, use your library computer terminals for information search?	186 12.27%	314 20.93%	906 60.4%	94 6.27%	3.36	.67
14	Did they participate in your library use instruction as a fresh student ?	88 5.9%	686 45.7%	716 47.7%	10 0.7%	3.39	.62
15	Did they empower you to make use of your university library effectively?	94 6.27%	186 12.27%	906 60.4%	314 20.93%	3.38	.73

From table 3, all the questionnaire items have high mean scores. Their high mean score is above 1.5 on the four point Likert scale, where very often is 3, often is 2, occasionally is 1 and never is 0, that is the addition of 3,2,1,0 is 6. When 6 is divided by 4 it is 1.5 That is how 1.5 is the bench mark mean score therefore any mean score above it shows ineffectiveness. Unfortunately, all the questionnaire items had high mean scores above 1.5. These high mean scores show lack of information literacy skill.

Presentation of hypotheses / hypotheses testing

Four hypotheses were tested in the study at 0.5 level of significance. The results are as follows:

Hypothesis One:

There is no significant relationship between homophily-heterophily concept and effective reference services delivery to undergraduate students in the university libraries in North Central Nigeria.

Table 4: Correlation table showing relationship between homophily-heterophily and effective reference services delivery

Variable	N	Df	Mean	Std Deviation	R	P	Remark
Homo-Heterophily	1500	1498	48.54	7.20	0.981	0.000	Sig
Effective Service Delivery	1500		56.72	7.41			

The result from table 4 shows the relationship between homophily-heterophily and effective reference service among undergraduate students in the North Central. The relationship was found to be

significant (r = 0.981, P < 0.05). It implies that there is significant positive relationship between homophily-heterophily and effective reference service among undergraduate students in the North Central, Nigeria. Therefore, the null hypothesis is rejected.

Hypothesis Two: There is no significant relationship between information literacy and effective reference services to the undergraduate students of the university libraries in North Central Nigeria.

Table 5: Correlation table showing relationship between information literacy of staff and effective reference services delivery

Variable	N	Df	Mean	Std Deviation	R	P	Remark
Information Literacy of Staff	1500	1498	71.89	8.83	0.949	0.000	Sig
Effective Service Delivery	1500	1498	56.72	7.41			

The results from Table 5 showed the relationship between information literacy and effective reference service among undergraduate students in the North Central. The relationship was found to be significant (r = 0.949; P < 0.05). It implies that there is significant positive relationship between information literacy and effective reference service among undergraduate students in the North Central, Nigeria. Therefore, the null hypothesis is rejected.

Hypothesis Three: There will be no significant composite effect of the independent variables on the dependent variable. The result has been presented in Table 6.

Table 6: Summary of regression analysis of the combined prediction of the

independent variables on effective reference services

R = 0.760 R^2 = 0.577 Adjusted R^2 = 0.575 Std. Error of Estimate = 0.10317						
	Sum of Squares	Df	Mean Square	F-ratio	P	Remark
Regression	82213.102	4	20553.276	19.31	0.000	Sig
Residual	15.914	1495	0.011			
Total	82229.016	1499				

Table 6 showed that the composite /combined effect of the independent variables (homophily-heterophily concept, information literacy such that these factors have positive multiple correlations with the dependent variable (R = .577). This however, showed that these factors are quite relevant and important in predicting effective reference services. This is in line with the result earlier obtained on

each of the two factors in their bivariate correlations with effective reference service. Also, the two factors combined could explain 76% of the total variance in effective reference service ($R^2 = 0.575$). The remaining 24% was due to other factors and residuals not included in this study.

The Table 6 also showed that the adjusted R^2 value of 0.575 obtained is not due to chance as it was found to be significant ($f_{(3,1496)} = 19.31$; $P < .05$). Consequently, the hypothesis which states that there will be no significant composite effect of the independent variables on the dependent variable was therefore not accepted.

Hypothesis four: There is no significant relative contribution effect of the independent variables (homophily-heterophily concept, and information literacy on the dependent variable (effective reference services in the university libraries)

Table 7: Summary of relative contribution of the independent variables to   effective reference services

Model	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta(ß)	Rank	T	Sig.
1 (Constant)	-2.447	0.205			11.926	0.000
HM-HT Q	0.006	0.002	0.006	2nd	3.320	0.001
ILSQ	0.023	0.006	0.028	1st	4.130	0.000

Significant at P< .05

Table 7 reveals the relative contribution of the two independent variables to the dependent variable, expressed as beta weights. The partial correlation coefficient of homophily-heterophily concept has positive relationship with the effective reference services of the undergraduate students. The positive value of the effects of information literacy implies that the effective reference services of undergraduate students is actually determined by reinforcement of these variables. Using the standardized regression coefficient to determine the relative contributions of the independent variables to the explanation of the dependent variables, information literacy of the staff (ß = 0.028, t= 4.130, P < .05) is the most potent contributor to the prediction and finally followed by homophily-heterophily factor (ß = 0.006, t = 3.320, p < 0.05) in that order.

Findings of the Study

1. The reference services delivered to undergraduate students in North Central Nigeria were ineffective.
2. There was unconscious and non-practice of the Homophily-Heterophily concept by the reference librarians.
3. The reference services ineffectiveness were partly as a result of information literacy skills.
4. There was significant relationship between Homophily-Heterophilyand effective reference services, thereby nullifying the Null hypothesis.
5. There was significant positive relationship between information literacy and effective reference services nullifying the Null hypothesis.
6. The independent variables of Homophily-Heterophily and information literacy jointly used have strong positive relationship with effective reference services nullifying the Null hypothesis.
7. The independent variables of Homophily-Heterophily and information literacy relatively applied have strong positive relationship with effective reference services nullifying the Null hypothesis.

Conclusion

The study shows that all the independent variables namely homophily-heterophily and information literacy showed strong positive and significant relationships both individually(relatively) and collectively (jointly or compositely) to the dependent variable which is effective reference services. Therefore, for effective reference services in university libraries all the independent variables need to be taken into consideration, that is they need to be in existence for effective Reference services.

Recommendations

Based on the findings of this research, the following recommendations are proffered to improve effective reference services to university undergraduates in North Central Nigeria. It is essential for Nigerian universities to produce high academic quality graduates needed for socioeconomic development. Under- utilization of the reference services section of the Nigerian university libraries because of unsatisfactory and ineffective reference services has serious negative implications for the quality of graduates churned out in particular, and for the Nigerian polity in general, therefore,

1. There is need to sensitize the library workers both professional and non- professional cadres on the importance of effective and satisfactory reference services. Librarians work in the reference section without realizing that the section is for direct personal assistances to users. The section exists to make

users feel loved and important, to respect the users ideological leaning, and to make the user and independent learner for individualized learning. There should be training and sensitization programmes on effective reference services using reference query slip as a measure of reference services effectiveness. Once there is adequate training on the need to satisfy the users on all the items mentioned in that reference query slip, which is a tool for effective reference services, (statistics), then the library would achieve effective reference services in all their reference transactions.

2. For effective reference services, there should be deliberate consciousness of the homophily-heterophily concept in communication and reference transactions as it engenders effectiveness in reference transactions. With the consciousness of homophily- heterophily in reference services transactions, the reference staff would show respect for the ideological leanings of the undergraduate students, be friendly, cooperate and empathise with them for smooth reference transactions, there would be influx of the students in the reference section seeking direct personal assistance that would help them in knowledge acquisition.

3. Librarians that should be deployed to the reference section are the ones that respect the existence and principle of homophily- heterophily concept. There should be adequate training about the homophily- heterophily concept for librarians and other workers that render services. Once employees become conscious of it in libraries or any organization, people would begin to respect each other's ideologies and feelings, people would employ empathy when dealing with others. Workers who are conscious of it would respect the likes and dislikes of others. This homophily- heterophily is a necessity for effective reference services delivery, be it effective reference services or any other services delivery in any organisation. It is a package that should be made popular to others by training and intensive sensitization. University library's management and university authorities should post staff that are homophily-heterophily compliant to the reference section. In employment generally, employees that are homophily –heterophily compliant should be given employed so that services would go on smoothly. This would make all customers to be satisfied with the organization and would result in profit maximization

4. Staff that are information literate should be employed for reference services effectiveness, especially those who are computer literate and who have high degree of library literacy, so as to help the undergraduate students make good use of the library. Once all this significant factors are taken care of, effective reference services would thrive in all the university libraries, be it North Central Nigeria or even the whole world.

. The reference staff should recognise when the students need information, have the ability to evaluate the information, and be able to organize and use the information from a variety of sources. The reference staff should guide the undergraduate students in effective usage of information. These would suggest effective- reference services delivery. The reference staff should help them in the usage of computer for their information search when it comes to computer literacy, which is an integral component of information literacy. Concerning library literacy which is the second integral part of information literacy, the reference staff should help them use library instructions to perfect their search strategy, and should be committed to the library use instruction courses. The implication of this is that reference staff with high information literacy skills should be employed to help the undergraduate students become independent seekers of knowledge that would lead to their academic advancement.

7. From the findings information literacy, significantly influences effective reference services. The university library management should employ staff that are able to locate, utilize and evaluate information when needed. It should be someone that could organize information from a variety of sources and turn it into knowledge. It should be staff that can select the appropriate terminology that appositely expresses the concept or subject.

8. Staff that are computer literate should be employed for computer literacy, that is staff that are able to use computers and its related technology as the world is now a global village. These are the people that can offer effective reference services in the university libraries and for other organisations, it is only such people that can link with the global village. Library user's education significantly affects effective reference services since it is the skills and instructions a reference librarian should have to deliver effective reference services. Therefore, university library management and university management should work together to ensure that the library staff they employ are those that know the importance of library user education towards graduating a sound undergraduate.

9. The prediction of all the independent variables to the dependent variable, effective reference services correlated positively with all the predictor variables. This implies that the joint contribution of the independent variables to the dependent variable were significant, to conclude the fact that all the independent variables are needed for effective reference services, These mean that these variables relatively or singly are all positively correlated to effective reference services. These imply that they are potent factors to consider when recruiting reference staff in libraries, or any other organisation.

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