MARKETING TO ENHANCE THE USE OF INFORMATION RESOURCES AND QUALITY OF SERVICES IN MEDICAL LIBRARIES OF PUBLIC UNIVERSITIES IN NORTH-WEST NIGERIA.

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy (Information Studies) in the School of Social Sciences, College of Humanities, University of KwaZulu-Natal, Pietermaritzburg, South Africa

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DECLARATION

I, **Mudassir Abule Abubakar**, declare that:

1. The research reported in this thesis, except where otherwise indicated, is my original research.

2. This thesis has not been submitted for any degree or examination at any other university.

3. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.

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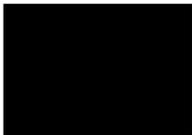
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ABSTRACT

The study investigated the marketing to enhance the use information resources and quality of services in Medical Libraries of Public Universities in the North-West Nigeria. The study was informed in order to find out the marketing situation in the medical libraries. The available literature indicates that marketing of information is concentrated in Nigerian academic libraries, thereby neglecting medical libraries. There is a dearth of literature on a similar research conducted in medical libraries. It is in line with this background that the study was conducted in order to investigate the marketing of information resources and services in Medical Libraries. This is underpinned by 4Ps, 7Ps, 4Cs marketing mix theory and the SERVQUAL model. The pragmatism research paradigm and explanatory sequential mixed methods research were employed in this investigation. A sample of 365 was drawn from a total population of 6644 of the study and all the four (4) heads of the medical libraries were purposely selected as participants for the study. Surveys, questionnaires, interviews and observations were the methods used to collect data for the study. Thus, the instruments were surveys (questionnaires) administered to medical students, while the interview guide were used in the interviews with the four heads of medical libraries and an observation checklist were used on the policy documents of the medical libraries, physical structure and its surroundings, the resources available in terms of volumes and the latest modern facilities available there, as well as the library user's turnout. The research instruments were pre-tested to ensure their validity and reliability. The quantitative data collected was analyzed using SPSS computer software for descriptive statistics. Equally important, the qualitative data obtained were analyzed, applying thematic data analysis technique with the assistance of Nvivo software.

The findings have revealed that marketing activities existed in all the medical libraries studied. Books were the dominant information resources available in the libraries. Current information was the most common service accessed and used by medical students. The Notice Board was found to be the common facility used for marketing in the medical libraries studied. Advertisement was also the major strategy used for marketing in medical libraries as acknowledged by students. As such, exhibitions, displays and user orientation programmes were found to be the least among the strategies used by the libraries in marketing their information resources and services to users. The study highlighted that inadequacy of information resources was a major factor that affected marketing in the medical libraries

studied. It recommends for adequate funding of the libraries for the provision of the resources and facilities essential for marketing. There should also be an effective policy to guide the libraries in marketing their information resources and services to users.

ACKNOWLEDGEMENT

DEDICATION

I dedicate this work to my beloved parents, the late Sheik Abubakar Abule Malumfashi, and my mother; Hajiya Binta Dawud, who brought me up in this world and provided me with a good upbringing and other moral and financial support for the good of society. May Almighty Allah reward them with Jannatul-Firdaus.

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ACRONYMS AND ABBREVIATIONS

AOAV AND NWGAV Action on Armed Violence and National Working
Group on Armed Violence

AV　　　　　　　　Audio-visual

B. A　　　　　　　Bachelor of Arts

B.A ED　　　　　　Bachelor of Arts Education

BMBS　　　　　　Bachelor of Medicine and Bachelor of Surgery

B.Sc.　　　　　　Bachelor of Science

B.Sc. Ed　　　　　Bachelor of Science Education

CAS　　　　　　　Current Awareness Service

CILIP　　　　　　Chartered Institute of Library and Information Professionals

EIRS　　　　　　Electronic information resources and services

FREQ.　　　　　　Frequency

HOD　　　　　　Head of Department

HOD'S　　　　　Head of Departments

ICT　　　　　　　Information and Communication Technology

IFLA　　　　　　International Federation of Library Associations and Institutions

IGNOU　　　　　Indira Gandhi National Open University

IIM　　　　　　　Indian Institute of Management

ILL　　　　　　　Inter Library Loan

ILSA　　　　　　Indian Library and Information Science Abstract

INSDC　　　　　Indian National Scientific Documentation Centres

L.R.C.N.　　　　Librarian's Registration Council of Nigeria

LIASA　　　　　Library and Information Association of South Africa.

LIBRA	Learning and Inquiry Based Reused Adoption
LIS	Library and Information Science
MAIG	Marketing and Advocacy Interest Group
MLIS	Master of Library and Information Science
N.C.C.	Nigerian Communications Commission.
N.I.T.D.A.	National Information Technology Development Agency
N.L.A.	Nigerian Library Association
N.M.L.A.	Nigerian Medical Library Association
NLA	Nigerian Library Association
OPAC	Online Public Access Catalogue
PERC.	Percentage
RFID	Radio Frequency Identification
RM	Relationship Marketing
SDI	Selective Dissemination of Information
SDR	Selective Dissemination of Resources
SERVQUAL	Service Quality
SNS	Social Network Sites
TETFUND	Tertiary Education Trust Fund
TV	Television.
UDUS	Usmanu Danfodio University Sokoto
UN	United Nations
USA	United States of America

CHAPTER ONE
INTRODUCTION

1.1 Introduction

The chapter presents the context of the study. It covers background of the study, statement of the problem, the research objectives, the research questions, the significance of the study, the originality of the study, preliminary literature, research, methodology, limitations and suggestions for further research, the scope and delimitations of the study, the definition of key terms, ethical issues and an outline of the thesis. The paragraph below discusses the study's background.

1.1.1 Background to the study

Information is essential for a country's educational, economic, and technological advancement. This is why Posigha, Igbinlola and Idiedo (2019) defined information as data provided in an easily understandable format with a meaning assigned in the context of its intended usage. According to Agbo, Tsegbe and Anozie (2019) information is necessary for man's survival and essential for society's functioning. Correspondingly, Chegwe and Obiamalu (2015) regarded information as power and an important commodity to any person or country that understands how to exploit and utilize it. Information performs a key role in the existence of anyone in society irrespective of his or her position. With the advent of numerous information organizations and agencies, the management of information declines to be the exclusive responsibility of the library (Olaopa 2017).Information is hence acquired, organized and disseminated to users by various libraries and information centers as their primary objective (Umoh 2017) Medical libraries according to Note (2015) are not different conventional libraries; they aimed to provide for the information resources and services needs of their target clients (patients, students and medical professionals) to meet their educational, research and patient care missions through the acquisition of resources that can boost their research, education and teaching needs. Medical libraries are located at academic institutions, hospitals, and other health-related institutions, to serve the information needs of a particular group of people in the medical and health sciences institutions.

Marketing libraries involves comprehending of the library's objectives and investigating the target market needs, and the library and its services, to satisfy those needs. It also means

attracting users by advertising the library and its products (Aderibigbe 2015). Marketing is a multidimensional socioeconomic discipline that focuses on individuals and organizations collaboration to identify and satisfy the needs of clients. (Igwela and Owate 2016). Gupta and Savard (2010) opined that marketing consists of the processes that bring people, technology, methods, techniques and environment together to provide users with information resources and services. Based on the discussion above, it can be concluded that marketing libraries involve the process of identifying users' information needs, with a view to address those needs. The process of identifying the information needs and the provision of relevant information can be attained through marketing strategies and promotion.

Service quality, on the other hand, is defined by Ramya, Kowsalya and Dharanipriya (2019) as the ability of the services provider to satisfy users in a timely and effective manner to improve business performance. In addition, Asogwa et al. (2014) argued that service quality is defined as the gap between user's expectations and actual services received and the expectations about the services. Hence, this indicates that service quality is about meeting the needs of library users according to their expectations. Moreover, there should be a close-link between the marketing of information resources and services and the expectation of the users. Libraries adopt marketing practices in their operations to attract more users and satisfy needs effectively as well as to overcome the challenges of budgetary cuts. It involves the use of ICT's in terms of hardware/software license and maintenance, information explosion, networking demand, the emergence of multiplicity of users and rising cost of information resources etcetera (Patil and Pradhan 2014). Edewor, Amughoro, Osuchukwu and Egreajena (2016) suggested how to handle the challenges; that in order to reach a large audience of users,' information and communication technologies with stable Internet connectivity should be put in place. In addition, libraries should embrace and aggressively use social networking platforms to sell their products and services.

1.1.2 Historical development of the universities under study

A brief history of each of the four Universities will now be provided.

1.1.2.1 History of Ahmadu Bello University Zaria

Ahmadu Bello University was established in 1962 after the Ashby Commission report recommended the establishment of three universities in three regions, one from each and then in the capital city, Lagos. The university was an amalgamation of the Ahmadu Bello College in Kano, the Institute of Agricultural Research, Samaru, Nigerian College of Arts, Science and

Technology Samaru outside Zaria, the Veterinary Research Institute at Vom on the Jos Plateauand the Institute of Administration at Zaria and was named after Ahmadu Bello the then premier of Northern Nigeria. At its inception, the university comprised four faculties that consisted of 15 academic departments and 426 students in all the programmes, respectively (Ahmadu Bello University Zaria, 2021).

Presently, the University occupies an area of 7,000 hectares, which is made up of seventeen faculties (17), 106 departments, 16 research institutes and three colleges of agriculture (ABU Zaria, 2021). The total number of students registered with the universities' academic undergraduate and sub-degree programmes is about 35,000 coming from all the states of the federation and other countries abroad. Currently, the University has 1,400 academic staff and 5000 supporting staff respectively (Ahmadu Bello University Zaria, 2021).The Faculty of Medicine, on the other hand, was founded in 1967, the first of its kind in Northern Nigeria. The reason for the establishment of the faculty is based on the white paper passed by the central government of Nigeria in 1961 and endorsed by the National University Commission in its declaration of 1963. The university council later authorized the faculty in 1967 as a single undergraduate awarding faculty, with seven departments and later 17 and a multidisciplinary degree awarding faculty. The medical library was established alongside the faculty to provide the students, medical professionals and other staff of the faculty with the requisite information resources and services (Ahmadu Bello University Zaria, 2021). The next section discussed the history of Bayero University, Kano.

1.1.2.2 History of Bayero University, Kano

Bayero University, Kano (BUK) commenced as the Ahmadu Bello College established in 1960, situated in the historic city of Kano, around the School for Arabic Studies. By the creation of ABU, Zaria in 1962, it was called Abdullahi Bayero College. In 1964 it stepped out to a temporary site at Kano's former Airport Hotel and admitted the first set of undergraduates of Ahmadu Bello University's B.A. degree programme. The students completed their studies in 1966. However, it remained as Abdullahi Bayero College till 1980. Beforehand, the temporary site had been subjected to hostile fire during the civil war, which made it necessary to relocate to the permanent place (the present day-old campus) in the Dukawuya gates of Kabuga area along Kano-Gwarzo Road. Abdullahi Bayero College was uplifted to the rank of University College to offer several Bachelor's degree programmes for ABU and was described as

Abdullahi Bayero University College, with its governing council (Bayero University Kano Annual report 2021).

In 1977, all the University colleges in Nigeria had been promoted to the rank of fully-fledged universities by the central government and Abdullahi Bayero College changed to Bayero University, Kano (BUK). The faculty of medicine was founded in the 1984/85 academic session and the first qualification to be offered as a Bachelor of Surgery (MBBS).Primarily, the faculty was engaged in graduating doctors mostly qualified in infectious disease management, prevention and control at the state and national levels and the world at large for the benefits of humanity. The medical library was established to provide information resources and services to clinical and preclinical students and the faculty's entire membership, both professionals and support staff. Currently, the university has 17 faculties, 1,575 number of academic staff, 1,152 senior non-teaching staff, 1, 592 junior staff, 200 technical staff, and students' enrolment of 49,622 (Bayero University, Kano 2021). The next section discussed History of Kaduna State University.

1.1.2.3. History of Kaduna State University

Kaduna State University was founded as a state-owned institution by the Kaduna state government following the enactment of the law that gave room for the establishment of the university by the then state government in May 2004. The adoption was because of the apparent need to promote higher education in the State. Two campuses were authorized, one in Kaduna town and the other in Kafanchan. Presently, the University has a total number of two (2) colleges, two (2) schools, eight (8) faculties, fifty-one (51) academic departments, thirty two (32) undergraduate and fifty four (54) post-graduate programmes. Another interesting thing is that a college of basic studies runs remedial programmes on both campuses (Kaduna State University, 2021).

The Kaduna State University medical library is situated at Barau Dikko teaching hospital and was set up to cater for continued access to up-to-date medical information resources that include electronic and conventional formats. It offers access to different (medical) Online Databases, namely the Hinary database, Science Direct, EBSCOhost, Scopus, Springer and MEDLINE databases to medical students. They can access the website using the search engines like Google, Ask.com, Aol.com, Bing, DuckDuckGo and etcetera (Kaduna State University, 2021).

1.1.2.4. History of Usmanu Danfodio University (UDUS)

The Usmanu Danfodio University was originally the University of Sokoto and is among the four (4) universities set up in September 1975, by the Federal Government of Nigeria. The early growth of the university commenced at a temporary location (presently known as city campus), which is located alongside Sultan Abubakar Road, Sokoto. Lessons began on the 20th of October, 1977, with 93 number undergraduate students in B.A, B.A ED, B.SC, ED and B.SC programmes (UDUS 2021).

The medical faculty was established along with the other faculties at the commencement of the university. The library was therefore created to provide for the information resources and services of medical professionals, other staff of the faculty, students and the teaching hospital as well. Unobe (2015) noted that the library is equipped with a collection of 19,600 volumes of books, 1002 journal titles and various other publications from the World Health Organization. Currently, there are twelve (12) faculties in the university. These include: Arts, Arabic, and Islamic Studies, Agriculture, Education and extension services, Law, Management Sciences, Chemical and Life Sciences, Engineering and environmental Design, Pharmaceutical Sciences, Physical and Computing Sciences, Social Sciences, and Veterinary Medicine. Five (5) colleges include College of Health, Allied Health Sciences, Basic Clinical Sciences and Dental Sciences. There are also a school of Laboratory Sciences, School of Postgraduate Studies, Abdullahi Fodio Library and General Studies Division (UDUS 2021).The following section below described the area of the study.

1.1.2 5. Description of the study area
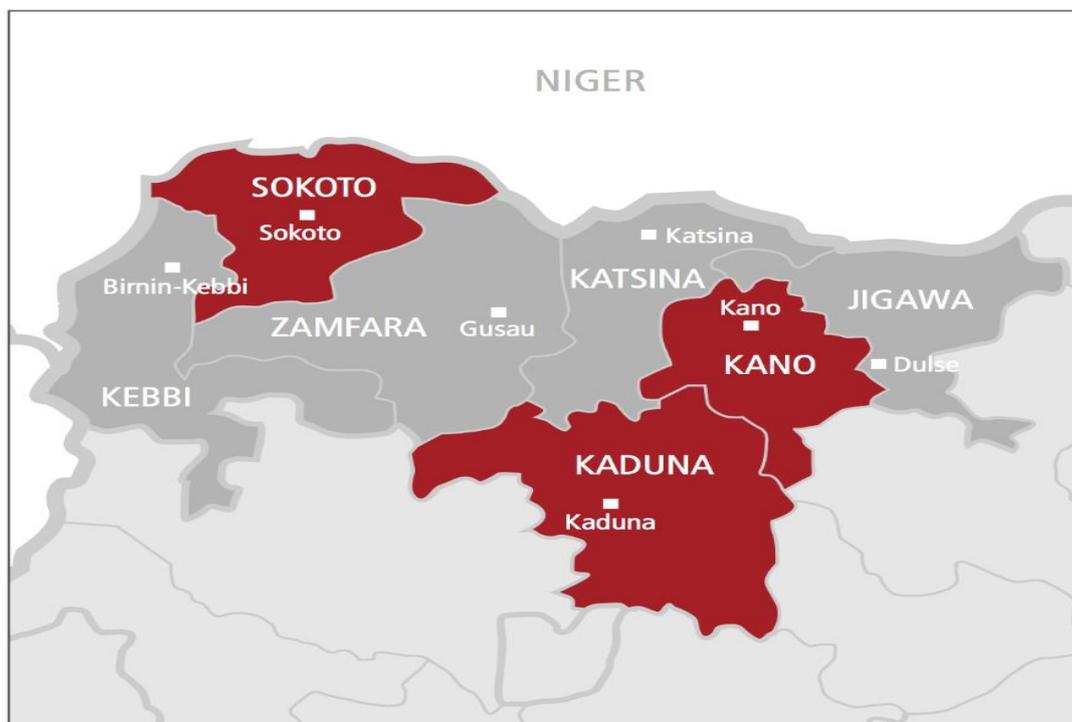
Figure 1.1.2.5: Map of Study

(Adopted from Action on armed violence and National Working Group on Armed Violence (AOAV & NWGAV 2013).

The above map shows the geographical location of the North-West geopolitical zone of Nigeria. There are six geopolitical zones. These include the South East (which consists of the following states: Abia, Imo, Ebonyi, Anambra and Enugu), the South-South Akwa Ibom, Bayelsa, Delta, Edo, Rivers and Cross River states), the South-West Ogun, Ondo, Osun, Oyo, Ekiti and Lagos, the North-East Adamawa, Borno, Bauchi, Gwambe, Taraba and Yobe, the North-Central Benue, Kwara, Kogi, Niger, Nasarawa,and Plateau. While the North-West which is the area of the research consists of the following states: Kano, Katsina, Jigawa, Kaduna, Kebbi Sokoto and Zamfara, respectively. In addition, the libraries fall within the North-West geopolitical zone in the following states and universities: ABU, KASU, Kaduna states, while BUK is in Kano state and UDUS in Sokoto state (UNOBE, 2015).

Consequently, all the states have a federal university in their domain as well as a state-owned university. Table 1.1.2.6 shows the number of zones in Nigeria and the public universities and studies on marketing medical libraries.

1.1.2.6. Distribution of universities by the zones and the universities in the zone

Table 1.1.2.6: Distribution of universities by geopolitical zones.

S/N	Zones	Number of Universities	Number of those with faculty of Medicine/Health Sciences	Studies on marketing academic libraries	Studies on marketing medical libraries
1	North-Central	15	6	8	NIL
.2	North-East	14	3	8	01
3	North-West	19	4	10	NIL
4	South-East	11	8	5	01
5	South-South	20	13	10	NIL
6	South-West	19	13	15	NIL
Total	6	98	47	56	

The Table indicates the number of universities in each geopolitical zone in Nigeria and those with Medicine/ Health Sciences faculties as of October 2021. More so, the numbers of studies conducted in marketing academic and medical libraries are based on my findings (Medical and Dental Council of Nigeria 2021). The next section discusses the contextual history of library and information science marketing in medical libraries.

1.1.2.7. Contextual history of marketing in the libraries

According to Gupta and Savard (2010) marketing as a concept was first introduced into the library in the 1970s when Philip Kotler, the marketing expert, began to extend the notion of marketing to non-profit organizations like the library. In the 1980s, the concept was widely accepted, particularly with the introduction of services marketing in libraries. Marketing continued to be promoted particularly with the contributions by some library organizations and associations, which went to various lengths, to ensure marketing was included into most of their programmes as well as training staff from time to time on marketing. Such was the interest

that a bibliography on libraries marketing was published. The United States (USA) based Special Library Association is one of the notable associations that contributed significantly to the promotion of marketing in libraries. This association showed interest in marketing their services through enhancing the promotion of themselves and exhibitions of their resources and services to target users. Various strategies were employed to promote the products usage, including improving the user-library relationship and attracting support from their parent organizations. Several important books on marketing were published during that period, that is, the 1920s (Gupta and Savard 2010).

From another perspective, marketing has technically been employed in the library since long before the formal introduction of the concept marketing in the 1970s by Philip Kotler (Renborg 1997:5). Renborg (1997) further emphasizes that the speech of Samuel Sweet Green, who advocated the "improved personal relationships between librarians and the readers" at the IFLA conference of 1876, has portrayed and confirmed this assertion. However, even in recent times, marketing information resources and services has primarily taken a user-centred approach, which explains why scholars, such as Kennedy and LaGuardia (2017) and Chandratre and Chandratre (2015), have emphasized the importance of a user-centred approach in which resources, services, facilities, rules and regulations are all centred on the client. In contemporary times, the origin of modern marketing often associated with some of the advanced countries like the USA with good library systems, which are achieved high literacy levels. Similarly, they have invested enormously in education. Thus, more libraries and library schools were established in these countries than in other countries of the world. This does not mean that other countries have had no interest in developing their libraries to cater for their users adequately. There was a significant development in marketing in some European and Asian countries as well. Other notable developments include the introduction of Ranganathan's "Five Laws of Librarianship" and the "National Library Week" in Australia, which was the first of its kind in the world, both in the 1930s and 40s, respectively (Renborg 1997).

The concept of marketing and practice continue to manifest in many countries of the world with different methods and strategies for promoting the use of the resources and services and providing of the requisite resources and services to users. In USA, for example, marketing activities continue to gain momentum and among the noticeable developments was the reopening of the Rochester Public Library in 1994 after it had gone through a period of refurbishment and expansion that gave them the opportunity to enhance its services. A team

headed by the public relations manager was delegated to devise a scheme to create alertness of the electronic resources in the library. The team deliberated and came up with three strategies. These include: -

i. Delivering messages via modern technology to enhance the image of the library to the public;

ii. Long-term campaign strategy for improving the awareness and the role of the library as a primary source of information resources and services to the community; and

iii. Modernizing the online system of the library to LIBRA and recommending a promotional game labyrinth to motivate the use of online services. The concern of the team was to enhance the relationship of the library with the mass media and discover the other means with which library messages will be delivered to users (Enache and Simona 2008).

However, the preceding arguments indicate the strategies used then to promote the use information resources and services in the USA. Presently, the situation has drastically changed as libraries use modern and emerging technologies to promote information resources and services. Rogers and Neilson (2017) identified some promotional strategies featured in the library environment in the USA. These include websites to feature the resources and services available, tutorials to educate users about the resources in the library, social media, such as blogs and info graphics (visual representation of information), and so on.

Similarly, the medical libraries in the Dallas Library of the University of Texas followed a similar procedure by appointing a team to lead the marketing project. Among its objectives was to find out who their users are and their information needs; to establish new services and products that will adequately address the users' needs; assessing the users by exploring many techniques aimed at finding the ways that will facilitate and ensure the efficient marketing of information products in the libraries (Enache and Simona 2008). All these were efforts to boost the marketing of information products to satisfy the clients and to promote the image of the libraries and the librarianship.

In Australia, academic libraries like in many other countries are crucial and have been focusing on educational and institutional support. In the recent past, the products and services provided in their libraries have changed significantly. In their attempt to move forward most of the

libraries began to appreciate the application of the marketing concept in their libraries. Library administrators collaborated and formed a committee that came up with recommendations and strategies that enhanced marketing their libraries' information resources and services.

(Enache and Simona, 2008). One of the strategies adopted was a uniform price for access to the full text of various databases and electronic services among the libraries. Secondly, the public users in all the academic libraries can access the library for free and without formal identification, although they cannot have borrowing privileges or uses online resources without permission. All the services provided would be reviewed from time to time to ensure the users get what they want. Moreover, a user study was to be carried out every two years to verify the performance of the library, staff efficiency, service quality to users, and facilities and equipment. These and others are some of the strategies used by Australian academic libraries in the repositioning of library services to be more market –oriented (Enache and Simona, 2008).

In India, as reported by Sharma and Bhardwaj (2009) the development of marketing started in the 1980swhen literature on marketing emerged and at the same time marketing constituted the sub-themes of many conferences and seminars in the country. Other noticeable developments were the abstracting in the marketing area by the Indian Library and Information Science Abstracts (ILSA) in the same year and the development of a database on marketing library services by IIM Ahmadabad, which has benefited scholars in many ways. The Indian National Documentation Centre's (INSDOC) MLIS programme of the Indira Gandhi National Open University (IGNOU) has founded a blog dedicated to the marketing of information products. In fact, the topic of marketing was included in the syllabus of many Indian Universities. These and other innovations have made a significant impact regarding the marketing of information services in India (Sharma and Bhardwaj, 2009).

In Africa, on the other hand, the marketing of library services, as earlier reported by Enache and Simona (2008), concentrated mainly on publicity and public relations as the only medium for marketing of information resources. Due to inadequate funding, the absence of functional and accurate marketing strategies in the libraries, lack of marketing plan, lack of awareness by librarians for not knowing what to market and a shortage of facilities, many libraries in Africa are yet to have internet connectivity let alone automating library operations and services (Enache and Simona 2008 and Edewor et. al 2016). The funding issue, infrastructures, and related issues led to what transpired then in terms of library development in Africa.

Enache and Simona (2008) further emphasized that marketing in Africa has been defective and that marketing information resources and services was still based on booklets, posters, or websites. This is only for the privileged few libraries that have the relevant facilities. Every form of marketing requires a unique approach based on the background and the kind of library at which information will be disseminate and the information product to be promoted. In more advanced settings, the website is used as a medium for promoting the library services. Contrary to this, the reverse is case in Africa. Marketing of this kind is out of date; instruments and the facilities are conventional and cannot stand the test of time (Enache and Simona 2008).The researcher had no knowledge of literature that discussed the issues of the resources, services and facilities used then for marketing information resources and services.

The scenario has changed lately, because most of the libraries have changed their ways.that is to say, the modern trend of marketing resources and services was adopted, whereby several information resources and services are marketed to the clients. The application of ICT in libraries, especially the internet, social media and other emerging technologist pushed the libraries to market their resources and services via these media. Consequently, the social media, such as Facebook, Twitter, whatsapp, blog, etcetera were used effectively to market information resources and services namely, e-books, online databases, books/journals, electronic access to information and many online/ virtual reference and referral services by the libraries to ensure that users 'needs are adequately provided as corroborated by Miracle (2018) and Olurunfemi and Ipadeola (2018)**.**

 In Kenya, according to Enache and Simona (2008) marketing of library and information services was in the early development phase and enables libraries to administer their affairs efficiently. Many library managers perceived marketing as a means through which users are informed about the available resources in the library, not about library services. Various information and library service practices have many things in common as they focus on marketing awareness and marketing strategies. Different types of library services are at different stages. Finance and effective library policies remain their stumbling block to dynamic library and information services. Other issues reiterated by experts are library attitudes to implementing what is being practiced in advanced countries. This is without due consideration of their peculiar situation. Instead of designing domestic marketing policies and programmes that are practical and suitable to their marketing environment and the available infrastructural facilities. There is awareness among librarians of the importance of marketing practices in

libraries. Effort is underway to create a new concept of marketing that is suitable to the needs of the immediate environment (Enache and Simona 2008). However, there is not much difference in what happened in 2008 and the recent past, as reported by Edewor et al. (2016) that libraries are still lacking in terms of a good marketing plan, lack of awareness by librarians by not understanding what to market and shortage of facilities.

The history of marketing in Nigeria may not be so different from Kenya and other African countries because they share similar problems with regards to funding, infrastructure and other challenges. This has been corroborated by Okon and Umoh (2014) when they maintained that marketing information resources and services in Nigerian university libraries still lags behind than that of other countries because it has not been given the requisite attention from university library management and inadequate funding from the Government, which has added to the unfortunate marketing situation in Nigerian university libraries today.

It should be noted that the researcher did not find any literature reporting on how and when library marketing started in Nigeria. Various databases and search engines were searched, such as Google Scholar, Science Direct, EBSCOhost, ProQuest, Electronic Journal of Academic and Special Libraries, the International Journal of Library and Information Studies and the International Journal of Advances in Library and Information Science. This brief history of marketing library services indicates that marketing is not an emerging trend in the library, but an old trend that existed in the library (Enache and Simona 2008).The subsequent section reviewed the statement of the problem in the study.

1.2. Statement of the problem

Marketing in libraries refers to promoting the availability of information resources and services to clients. This is done using various strategies. According to Edewor et al. (2016) marketing entails the systematic assessment of a patron's needs and the creation of information products to fulfil the needs. To accomplish this, the library must first identify its users through a community study (market survey) to ascertain their needs and the best strategies for meeting those needs. This will facilitate successful marketing and will give the library an accurate picture of its users, their needs and which strategies to use. The benefits of marketing in libraries have included the encouragement of more users to return to the library on a regular basis, a change in the perceptions of the library and its employees, as well as ensuring the

library's relevance and encouraging efficient use of information resources (Okon and Umoh 2014).

Chandratre and Chandratre (2015) on the other hand, noted that marketing as a concept and practice is yet to be given the attention it deserves by many libraries and information centers. Moreover, the information resources and services provided are not user-oriented, which means they are not what users expect. Essential services, which include; online databases, e-mail, electronic alerts, selective information dissemination and electronic resources consortiums are, not available in the libraries. In addition, as opined by Kalita and Kumar Singh (2020) medical students must stay up with the most current information sources and the library is the only place that can deliver such information sources and services using new and emerging technology. This is why medical libraries should market their services as a way of enhancing the quality of their products.

The effective marketing of information resources and services of the libraries will attract funds to purchase quality information resources. In Nigeria, marketing information products mainly occurs in academic libraries, excluding medical libraries. Yet, the medical libraries are not exempted from the issues affecting the application of marketing strategies in academic libraries. Failure to address such problems might lead to enormous consequences, including libraries' loss of relevance as the most reliable information agency, negative impression of these libraries and loss of confidence from parent bodies due to inefficiency. This will have a significant effect on the quality of academic programmes. This would also give other competing information agencies (internet service providers, free web access providers, mega book stores and book dealers) to the detriment of the libraries, to mention but a few (Adekunmisi 2013).

It should be noted that very little literature was found on the marketing of medical libraries in general and specifically in Nigeria despite the effort made by the researcher (see table 3.1.1 Chapter Three for details of databases consulted). It is in line with this background that the study conducted an empirical investigation on the marketing to enhance use of information resources and quality of services in medical libraries in North-West Nigeria, with the view to proffer valuable recommendations to address the existing challenges of marketing in the medical libraries.

1.3 Research objectives

The focus is on marketing to achieve use of resources and quality of service in medical libraries of public universities in North-West Nigeria and come up with recommendations for an effective marketing strategy for such libraries. Therefore, the research is geared toward meeting the following objectives in North-West, Nigeria:

1. To identify the resources and facilities available for facilitating the marketing of resources and services in medical libraries;
2. To examine the marketing strategies and techniques currently employed in meeting users' needs in medical libraries;
3. To identify the factors that adversely affect the effective marketing of information resources and services to users in medical libraries
4. To determine the measures that can be employed to facilitate the effective marketing of information resources and services to users in medical libraries

1.4. Research questions

1. What resources and facilities are available to facilitate marketing resources and services in medical libraries?

2. What marketing strategies and techniques are currently employed in meeting users' needs in medical libraries?

3. What factors adversely affect the effective marketing of information resources and services to users in medical libraries?

4. What measures can be employed to facilitate the effective marketing of information resources and services to users in medical libraries?

1.5. The Significance of the study

The research aimed at investigating the marketing of information resources and services in medical libraries in the public universities of North-West Nigeria. The research reported the present situation and developed recommendations that would enhance marketing in medical libraries. The study will serve as a tool for medical libraries in the zone and Nigeria at large in enhancing and restructuring their operations and services and developing effective policies

related to marketing. The research will contribute to the existing knowledge/literature and fill a gap regarding the empirical study conducted in Africa, specifically in Nigeria, in the marketing of medical libraries. Very little literature was found on the marketing of medical libraries and there was none on the marketing of medical libraries, specifically in Nigeria, which is, therefore, the justification for this research. This has been discussed in detail in the section of originality below.

1.6. Originality of the study

In a general context, originality may refer to something new (for example, a new technique, theory and observation) that contributes to the existing body of scientific knowledge (Shibayama and Wang 2020).Similarly, originality, as remarked by Krapež (2013) is an essential process of invention and innovation of any intensity. In other words, it means creating a new idea out of the existing knowledge or inventing an entirely new concept.

Hence, the present research is unique because there was no literature showing that similar research was conducted on the marketing of medical library resources and services, specifically in North-West Nigeria. The studies conducted previously concentrated on marketing academic libraries to the detriment of medical libraries and left a gap that needs to be bridged through empirical investigation. The issues surrounding marketing have not always augured well in libraries, which drawn the attention of many scholars. For instance, Aderibigbe (2015) revealed that there were issues of utmost concern that adversely affect marketing in university libraries. These include inadequate funding, a lack of proper training for library staff and an unstable power supply. In support of this, Bello (2015) asserted that the lack of finances, an over-attachment to the Internet, a poor reading culture, a negative attitude of staff towards work, as well as outdated resources hinder the effective marketing of information resources and services. Also, Igbokwe, Ezeji and Obidike (2010) reported that other marketing challenges in selected Nigerian libraries were inadequate infrastructure and understaffing. More so, the literature is silent on the impact of marketing strategies used by the libraries to improve the usage of their resources and services. These are some of the issues that need to be addressed. In addition, issues concerning information resources, services, facilities, and strategies for marketing in medical libraries are not reported by the previous studies, which are the gaps that this study bridged. Other related areas included the use of resources and services in medical libraries.

Shehu (2015) conducted research on marketing information resources and services in tertiary institution libraries in Kaduna State at the Master's level. The study covered only tertiary institutions. With regards to methodology, it used the quantitative method with a questionnaire as the only data collection instrument. Students were selected as respondents for the study and there was the absence of any theory selected to underpin the study. Whereas the present study differs from that study regarding the study area, subject, level and method. The present study was on the marketing of medical libraries in North-West zone, Nigeria as a Ph.D. research work and used mix methods in conducting the study, with heads of medical libraries and medical students as the respondents for the study. At the same time, the research was underpinned by 4Ps, 7Psand 4Cs marketing mix and SERVQUAL theory, respectively.

Also, Odine (2011) conducted research on, marketing academic libraries in Niger state at the Master's level. The study was entirely a different zone from this study. Regarding methodology, the research used quantitative methods with a survey questionnaire as the only data collection instrument and librarians were chosen as respondents. The study also discussed 4Ps, marketing mix theory, relationship theory and total quality management theory but none of these theories was chosen to underpin the study. Hence, the present study differs from that study in terms of study, area, level and method and was conducted in the North-West zone as a Ph.D. research work that used mix methods with heads of medical libraries and medical students as respondents. At the same time, the study was underpinned by 4Ps, 7Ps and 4Cs marketing mix and SERVQUAL model, respectively.

Similarly, Unobe (2015) conducted research on the availability and utilization of on-line information sources and services in federal universities' medical libraries in North-West Nigeria. The research was conducted in the same area of the present study. However, it differs from the present study regarding the subject matter and level. The present study was on marketing while the former is on the availability and use of online resources at the Master level. The study used the quantitative method with a survey questionnaire as data collection instrument. Library staff, students and medical practitioners were used as respondents for the study and finally, the research does not use any theory to underpin it. While the present study used mixed methods with medical students and heads of the medical library as respondents. Also, it was underpinned by both 4Ps, 7Ps, 4Cs marketing mix and SERVQUAL theory, respectively.

In view of the above, the present study will bridge the existing knowledge gap. It will increase the literature in marketing of information resources and services, as there was no study conducted in marketing medical library resources and services in the North-West Nigeria. The next section discusses the preliminary literature for the study.

1.7. Preliminary literature

The literature reviewed in this section was derived from both print and electronic library resources in e-books, books, journals, databases, and other sources. The following search strategies were also identified and used in searching for the literature, namely on marketing services, marketing information resources, marketing medical libraries, information resources in medical libraries and information resources. The next section discusses research methodology for the study.

1.8 Research methodology

Mixed methods research was used in this research. It was guided and supported by a pragmatic approach considered suitable because of its ability to integrate both qualitative and quantitative methods (Creswell 2018). Furthermore, Explanatory Sequential Mixed Method was deemed fit for this research and therefore used. According to Creswell (2018) it is a method used when the researcher conducted quantitative research, analysed the results and then used qualitative research to explain the findings fully. Therefore, adopting this design is appropriate and justifiable because the data collection instruments are both quantitative and qualitative.

The target population of this study was divided into two groups. The very first group included 6644 medical students in four universities in the North-West Nigeria. The second group was made of four heads of medical libraries from the same universities in the zone. Hence, the sample size for the study was 365 medical students and four heads of medical libraries. The interview guide, observation checklist and survey questionnaires were the data collection instruments employed in the current study. To ensure the validity and reliability of the research instruments a pre-test validation was conducted. In addition, statistical analysis using Statistical Package for the Social Science (SPSS) software has been used to analyze the quantitative data collected and NVivo software was also used to analyse the qualitative data collected. See Chapter Four for details about the research methodology.

1.9 Limitations and suggestions for further research

The present study explored marketing of information resources and services in medical libraries of public universities in the North-West Nigeria. It is limited to North-West zone, which consists of seven states, namely Katsina, Kano, Kebbi, Kaduna, Jigawa, Sokoto and Zamfara states. It is recommended that future research should be conducted on how marketing contributes to the use of information resources and quality of services. It is also recommended that upcoming research be carried out in the remaining two zones to determine the similarity and differences in marketing information resources in these zones and whether a common marketing framework could be established. A similar study should also be conducted to investigate marketing information resources and services in medical libraries in Southern Nigeria. The present study was conducted in public universities. Future research could be carried out in private universities to study their marketing of information resources and services and relate to the findings.

In addition, a research on the viability of social networks or media and other essential media for LIS marketing in medical libraries should be conducted. The present study focused only on medical students and heads of medical libraries and did not include academics, who are also important users of library resources and services. Future research ought to understand the marketing of information resources and services from academic staff viewpoints. The present study used the 4Ps, 7Ps, 4Cs and service quality model to underpin it. Future research should use other theories, such as total quality management theory, relationship marketing theory and etcetera. The next section discusses the scope and delimitation for the study

1.10. Scope and delimitations of the study

This research focused on marketing of information resources and services in the medical libraries of public universities in North-West Nigeria. The respondents of this study covered only medical students and the heads of medical libraries, who are professional librarians part of the library management and responsible for driving library policy and practice in the library. The study did not cover students of other faculties of the universities under study. It involved four (4) medical libraries in four (4) universities across the North-West Nigeria. These universities were as follows: Amadu Bello University, Zaria, Bayero University, Kano, Usmanu Danfodio University, Sokoto and Kaduna State University, Kaduna. This means that other medical libraries in other universities in Nigeria were not be included in the present study.

The study did not cover other services in the main library of the universities under study. The next section discussed the definition of key terms.

1.11. Definition of key terms

Marketing entails all the efforts toward enhancing full user satisfaction by way of providing proper information resources and services (Bello 2015:59). In other words, marketing, according to Edewor et al. (2016) and Enweani (2018) entails a wide range of procedures geared at satisfying the needs and aspirations of users as well as organizational goals and objectives.

Quality: is a strategic tool for increasing operational efficiency and improving organizational success (Ramya, Kowsalya and Dharanijiya (2019).

Information Resources: simply refers to those medium or materials through which information is recorded and conveyed to users without which the information dissemination, storage and preservation for future consumption will not be realistic. These include books, journals, CDROMS, Internet and other related resources (Bello 2015).

Services: are referred to as the arrangement of the process, people, skills, resources and technology that are brought together to provide the desired services (Goldstein, Johnston, Duffy and Rao 2002). In addition, Ramya, et al. (2019) see services as any benefit provided by one party to another that is fundamentally immaterial yet does not result in the ownership of anything.

Medical Library: Medical libraries are libraries that provide resources and services that are designed to satisfy the aspirations of library patrons (Ekene, Agbo and Onyekweodri 2016).

University: University is an institution established for the transmission and flow of ideas as a way of personal interaction (Boulton and Lucas 2011).

Patrons/Users/Clients: any individual who utilizes the resources and services of a library, not really an enlisted/ registered borrower (Reitz 2004).

1.12. Ethical considerations

The researcher complied and adhered to all the relevant ethical requirements established by the University of KwaZulu-Natal (UKZN 2007:04). The respondents were given an informed consent form and permission was obtained for their participation in the study by attaching a copy of the consent form in each questionnaire and the consent of the respondents was sought before recording their voices during the interview.

1.13. Outline of the thesis

Chapter One: Introduction

This chapter discussed the context of the study. It covered background of the study, statement of the problem, the research objectives, the research questions, the significance of the study, the originality of the study, preliminary literature, research, methodology, limitations and suggestions for further research, the scope and delimitations of the study, the definition of key terms, ethical issues and summary of the Chapter.

Chapter Two: theoretical framework

This chapter discussed theoretical framework adopted for the study namely the 4Ps, 7Ps 4Cs marketing mix theory and Servqual model used. This guided the study towards addressing the research questions and summary of the chapter.

Chapter Three: review of related literature

This chapter presents a review of the available literature on the research questions and variables of the 4Ps, 7Ps, 4Cs, marketing mix theory and SERVQUAL model. The gaps in the literature were identified and summary of the chapter given.

Chapter Four: research methodology

This chapter presents the research methodology and methods that guided the study. These comprises the research paradigm, the research design, the population of the study, the sampling technique, the sampling for the study, the research instruments (questionnaires, interviews and observation), the data analysis techniques, ethical considerations and validity and reliability, as well as the pre-testing of research instruments as well as the summary of the chapter.

Chapter Five: Data analysis and presentation

This chapter discusses presentation and analysis of the data collected. SPSS software was used in the analysis of quantitative data, while Nvivo software was used in the analysis of qualitative data as well as the summary of the chapter.

Chapter Six: Discussion of research findings

This chapter discusses the findings of the research based on the variables of the theories and the summary of the chapter.

Chapter Seven: Conclusions and recommendations of the study

This chapter provides recommendations, conclusions as well as a summary for the chapter

1.14. Summary

From the literature reviewed, the major thrust of the previous studies conducted were on marketing academic libraries and presenting a limitation in marketing medical libraries resources and services. This needs to be addressed given its significance in promoting the image of the library and enhancing usage of its resources and services. Overall, the study differs from the earlier studies with regards to level, the area of study and method as clearly highlighted in the originality section above. The study also covered medical libraries in public universities in North-West Nigeria, including students in the faculties of medicine or health sciences and no other faculties. The ethical issues of the research were adhered to by the issuance of consent forms to participants and as well their permission to take part in the research was sought. Mixed method research was used to guide the study and survey questionnaire, interview guide and observation checklist were employed as data collection instruments. Finally, the key terms of the study were explained. The next chapter discusses the theoretical framework for the study.

<center>**CHAPTER TWO**</center>

<center>**THEORETICAL FRAMEWORK**</center>

2.1 Introduction

This section discusses the theories that guided the study. a theory, according to Kivunja (2018) is usually the result of a long research process that uses empirical data to establish claims based on deductive and inductive data analysis. As such, a theory serves as a headlight in a motor vehicle for the driver to see where he is heading to. The theoretical framework is a structure that summarizes the ideas and theories that you generate from previously established and published knowledge and synthesis to offer a theoretical basis for your data analysis and interpretation of the meanings contained in your study data (kivunja 2018). Thus, theory is therefore an important component of a research that will guide a research to its logical conclusion. The next section discusses the 4ps marketing mix theory.

2.2 The 4Ps marketing mix theory

The Marketing mix theory was conceived by Neil Borden and developed into seven (7) basic rules of marketing. These rules include the product, price, distribution, selling, advertisement, promotion and market research. The theory was later crystallized into the four Ps, (4Ps) namely products, place, price and promotion (Jefkins 1994). It is relevant to the issues related to marketing in the library and is also in conformity with the terms used in marketing activities as well. For example, the first P means Product, which refers to the product as well as services. The second P implies Place, which entails the location where the products and services are received. While the third P means Price and thus involves the value of the information provided through satisfaction. Finally, the last P implies Promotion, which consists of the use of media platforms for publicity and advertisement (Busari, Anyakola and Ladipo 2014).

The advantages of the 4Ps marketing mix are: marketing appears to be easy to organize and manage. It is autonomous from the activities of libraries and assigned to professionals, who will ensure the analysis, planning and implementation of some marketing tasks, such as an advertisement, sales, pricing and packaging. In fact, marketing mix research remains the marketing truth in significant parts of the academic world even today (Gronroos 1994).Figure

<center>22</center>

2.2 below shows the scope of the 4Ps marketing mix, as well as the elements that are involved and how they are connected.

Figure 2. 2: 4Ps Marketing Mix

(Internet Centre for Management and Business Administration 2011: 01).

The theory comprises rectangular linkages, which include 4Ps elements, namely Product, Price, Place and Promotion and all the items are geared towards a common goal, which is the target market of library users, and every part targeted towards satisfying users (Odine 2011). Hence, the theory is based on the following;

Target market

This entails the marketing of the library to users who are frequently in the library and use it remotely and those who do not use the library at all. The target market appears in the middle because it is the essential element in the marketing mix. Thus, every component of the marketing mix is aimed at satisfying users (Odine 2011:41). The target users in this study are the medical students and medical practitioners.

Product

A product is anything that can be provided to fulfil the needs of a market. These include books, journals, manuscripts, newspapers, databases, electronic resources, e-mails, current awareness services, reference services, the inter-library loans, selective dissemination of information and reference services etcetera (Busari et al 2014).

Price

This involves the satisfaction library users could derive from using the library resources and services. In other words, users' efforts that are put in place to get the information resources and services. From another perspective, price means the financial aspect that is the money generated from the membership dues, the reprographic services, internet access and overdue charges. More so, it entails the relevance of the information products to the satisfaction of the users (Samanian and Khosropanah 2016:758).

Place

This involves the area or location where resources and services are provided to users. To support this point, Samanian and Khosropanah (2016) refer to place as the distribution venue of the products and services of a library. This includes the main library, faculty/college libraries and remote access via the internet/intranet, library web page, databases, teleconferencing, video conferencing and social media.

Promotion

According to Mohapatra (2017) promotion entails all the decisions taken to ensure that users are fully informed of the library services. In terms of information resources and services, this could be using the telephone, fax, e-mails, brochures, library orientations, leaflets, posters, seminars and workshops, radio programmes and television to reach both existing and potential users.

Based on the discussion, therefore, it was discerned that the 4Ps theory emphasizes the provision of the right information resources and services through the 4Ps marketing elements, which are product, place, price and promotion. Therefore, the aspects of the theory have marched with the components of the library's overall objectives for providing users with information resources and services. Moreover, the theory focuses mainly on the product and

management aspect thereby neglecting other fundamental elements that are as important as the product itself. It does not emphasize the services to users which are equally important and a vital component of attracting and retaining users/customers. Habit and Raewf (2018) identified some of the challenges bedevilling 4Ps marketing mix includes:

i. The marketing mix sees users as passive; it does not allow interaction and cannot capture relationships;

ii. The marketing mix does not regard user behaviour; however, it is internally oriented;

iii. The marketing mix ignores theoretical content and functions solely as simplistic instruments for steering management focus; and

iv. The marketing mix does not assist in personifying marketing activities.

However, the issues of 4Ps marketing mix as highlighted above would be address by the 7Ps marketing mix as the theory had the capacity to handle the challenges posed by 4Ps theory because the theory includes peoples, process and physical evidence. The users are not only disregarded or considered as passive but they are central because product and services must be user centred for it to satisfy their needs. More so, the combination of these constructs will lead to efficient product and services provision that is user centred. Grönroos (1994) further affirms that the 4Ps speak to the worldview of the 1960s and may not be worthwhile in this aggressive environment of the 1990s. Therefore, this indicates that the theory is outdated and cannot stand the test of time. The researcher disagreed with Gronroos's (1994) argument and believed that the theory was still valuable and could guide this study. More so, the theory's primary focus was the product that stands for the resources and services in the context of this study. Therefore, marketing of any kind must come up with the product to sell and the other components are require to attain their objectives, for example, a place is required as a medium for the promotion of such a product to satisfy the needs of the clients and so forth.

Moreover, the theory emphasizes that marketing activities should be autonomous from other library activities, which are almost not feasible in the library environment because all the library departments work interdependently. Furthermore, the researcher supported the above argument that separating marketing from other library activities was not the best if the marketing is to be efficient. It must be everybody's responsibility and must not be left at the mercy of the marketing departments. This explains why Kennedy and LaGuardia (2017) noted

that marketing is everyone's job. If the library aims to communicate with a consistent message, everyone must prioritize it efficiently. Therefore, for the library to speak with one voice, communication cannot be strictly controlled within one department but must be a part of the everyday discourse among all library staff (Kennedy and LaGuardia (2017).

These and other assorted problems attracted severe criticisms of the 4Ps and, therefore, called for a total review or a total overhaul of the theory. There were so many suggestions on what to do with the theory from different marketing scholars and the famous one is Booms and Bitner (1981). Rafiq and Ahmed (1995:5) ascertained to this when they proclaimed that the most significant of the other frameworks is the Booms and Bitner 7Ps mix. However, the 7Ps marketing being the upgraded version of 4Ps would bridge the gap left behind by the 4Ps theory, namely being the product centred, user as passive, no human interaction is allowed and so on. With the 7Ps in place, all these issues will be addressed. That is to say, it is a services-centered theory that is as pertinent as the product itself. The other three additional Ps that include people, process, and physical evidence not only regard people as active clients but also allow interaction between the service provider and the clients. Therefore the presence of these three constructs will tackle the major problems of the 4Ps highlighted. These and other issues did not stop the research from using the 4Ps theory from guiding the study. Hence, the theory was used alongside the later version that is the 7Ps.The subsequent section presented the 7Ps marketing mix model.

2.3. The 7Ps marketing Theory

This section discusses the 7Ps marketing mix theory, is one of the theories that guided the study. Marketing mix alludes to the variables that the organization can manage and assembles to fulfil the needs of patrons. It is a specific set of components that constitute the products offered to the market. It also enable libraries to achieve the target market and spell out objectives. The philosophy of librarianship comprises the essential principles on which the libraries' practices, methods and events are built. (Moikan Mollel 2013). That is to say the provision of information through systematic acquisition, organization and dissemination of that information to the rightful users.

The 7Ps marketing mix was first conceived by Booms and Bitner in 1981 who additionally built up the traditional marketing mix founded by the American professor of marketing, McCarthy, into the broadened marketing mix or services marketing mix (Van Vliet 2011). This

service marketing mix is also refers to the 7Ps of Booms and Bitner. The service marketing mix approach broadens the original marketing mix model from four to seven components. On the other hand, McCarthy explained four specific marketing components, that is, the product, price, place and promotion. The 7Ps are an expansion of 4Ps because of which service marketing mix can also be useful for service organizations and knowledge-intensive settings (Van Vliet 2011). The extra 3Ps service marketing mix components, according to Amofah, Gyamfi and Tutu (2016) also changed the composition of the service marketing mix from 4Ps to 7Ps. The aim of the marketing mix is to create a mixture of actions that can affect a user's decision. The 7Ps services marketing mix, as highlighted by Busari et al. (2015) is a set of tools and methods used by organizations to accomplish their marketing objectives. These include: the product, price, place, promotion, people, physical evidence and process. Service marketing scholars staked out another field of management theories and practice independently from the marketing of physical goods.

This, therefore, explains why in 1981 this service marketing mix approach was viewed as exceptionally important that gave a new perception because of which the expansion increased far-reaching recognition in the science of service marketing (Van Vliet 2011). The three (3) more Ps, as explained by Loo and Leung (2018) contained people, physical evidence and process. At the same time, the people refer to the attitudes and the capabilities of employees. The process concerned with the implementation of services production and delivery. Lastly, physical evidence refers to the appearance of physical things that assist in carrying and playing out the services, such as the library building, equipment, furnishing, landscaping and so on. The theory was thoroughly examined and found that there are enormous strengths and negligible weaknesses when the 7Ps are used, rather than the 4Ps. The main advantages of the 7Ps include, but are not limited to, the fact that they are all-inclusive and comprehensive. The service products cover a core product that provides for the customer's basic needs and are linked with service components, including the presentation of information and the handling of exemptions (Loo and Leung 2018).

It was also found to be relevant and suitable for marketing in libraries and conforms to the terms used in other marketing activities. It is purer and more comprehensive than the 4Ps model and provides a broader perspective. It is more advanced; more standardized and includes participants/people, the process and the physical evidence which would allow interaction with the users, unlike the 4Ps marketing mix which does not give room for such interaction (Rafiq

and Ahmed 1995).Figure 2.3 below shows the scope of the 7Ps marketing mix and the elements that are involved and how they are connected.

Figure 2.3: 7Ps Marketing Mix

(Bortlava 2016:18).

The services marketing mix is an expansion of the conventional marketing mix model, from four (4Ps) to seven (7Ps) elements. The theory elements are as follows, regarding its application to libraries:

The Target Market

This entails the process by which a library identifies and defines the group of users to whom library and information services should be directed on every activity (Chandratre and Chandratre 2015). In the context of this study the target user are the medical students and the medical practitioners. According to Anyira (2011) anything targeted at users is central and the efforts of the library will be fruitless if the users' needs and wants are not taken care of. Users belong to different categories, namely the skilled user/computer literate user, the semi-skilled user/semi-computer literate user, the unskilled/computer-illiterate user, and abusers and those with varying degrees of information literacy. Hence, their nature, aptitude and needs ought to be considered to achieve the desired objectives. Moreover, the target market appears in the

middle, because it is the most crucial element in the marketing mix. Thus, every component of the marketing mix is aimed at satisfying users (Odine 2011).

The researcher found the 7Ps marketing mix theory appropriate and used in this research because it has been adopted and used in much empirical research on marketing and has been used in library research (example in Bamigbola,2013; Okon and Umoh,2014, Mohammed 2019 and Chandratre and Chandratre, 2015). Therefore, the present research will not be an exception in applying this theory to underpin the study.

Hence, the theory was employed to address the research questions in the current study. The elements mentioned above of the 7Ps marketing mix theory are operationalized below about the current study for marketing, as they apply to library services.

Table 2.3: The 7Ps Marketing Mix Theory

7Ps marketing mix	Definition of the Constructs
Product	This refers to the information products provided in the library and rendered to users. They include the reference services, the SDI, CAS services, etcetera.
Place	This refers to the location where the services are received; for example, the central library, branch libraries and bookmobiles or electronic access. In fact, with information and communication technology, the services can be received anywhere (Samanian and Khosropanah 2016).
Promotion	This involves communication between the marketer/ librarians and users to introduce and promote the product (resources and services). In other words, it entails using attractive information regarding general information services and communicating it to potential users in target markets. They include: magazine and newspapers, television, radio and soon (Chandratre and Chandratre 2015).
Price	This refers to the value of the information provided to satisfy the user's needs and the time spent or the struggle to obtain it (Samanian and Khosropanah 2016).
Participant/ people	Participants are the human components in marketing that occupy a particular position in user services, as well as the technical and automation unit. They perform a crucial role in logistics and related activities and the provision of reference and information services.
Physical evidence	This refers to the environment in which the information products are delivered and the things that facilitate the presentation and communication of the services or products, namely the library's social media pages, the library web page, and so on.
Process	This refers to the processes, instruments and movement of activities by which the library delivers resources and services to its target users. It includes the logistics, the marketing plan, and so on.

(Busari, et al. 2015 and Mohammad 2015).

Based on the aforesaid, the researchers found the theory appropriate for the current study, hence its adoption. The following section discussed the 4Cs model.

2.4. The 4Cs Marketing Mix Theory

This section discusses the 4Cs marketing theory and is one of the theories that guided in addressing the research questions of the study. The 4Cs model was introduced by Lauterborn (1990) who is the foremost critic of the 4Ps marketing mix, noting it as an outdated and product-oriented model of marketing. The 4Cs model intends to understand a marketing problem from the user's opinion. Moreover, the model emphasizes customer needs and interests as well more than what was evident in the 4Ps. The 4Cs theory, which is a more or less consumer-oriented (user) version of the 4Ps, signifies that the product is substituted by "Consumer," varying the emphasis on meeting consumer (user) needs. Price is covered by "Cost," indicating the cost of ownership. Promotion is substituted by "Communication," which describes a critical point as it signifies any method of communication between the consumer (user) and the organization. The place is replaced by "Convenience," which considers the easiness of discovering a product, purchasing a product and finding information on the product and several related issues (Jarad 2020). Also, among its advantages is that the model focuses on the user, making user preference the central point, having complete contact with users to understand their demands fully and providing valuable services (Jarad 2020). This indicates that the 4Cs theory is a bridge builder in the present study that fills in the gap left behind by the 4Ps and 7Ps. This is because 4Ps was a product centred approach and the 7Ps was a services centred. While the 4Cs is customer centred approach (user). Hence, the combination of all will efficiently covers the resources, services and the user aspects in the present study which are essential in ensuring that marketing enhances the use of information resources and quality service in medical libraries.

Figure 2.4 below shows the scope of the 4Cs marketing mix, as well as the elements that are involved and how they are connected. The 4Cs are then elaborated on below.
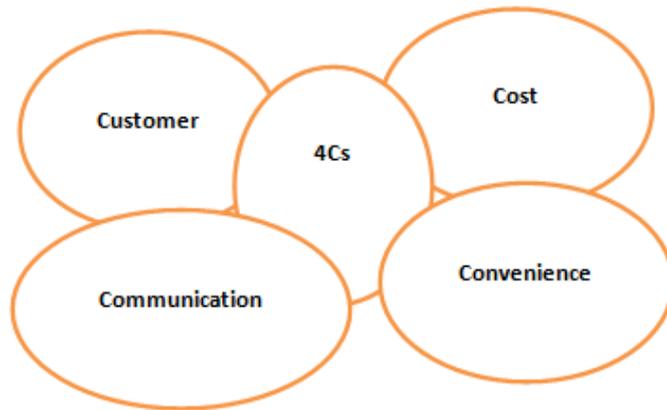
Figure 2. 4: 4Cs Marketing Mix

(Bartlova 2016:9)

Customer/user wants and needs (rather than Product): This implies that the library should not provide what they wish to, regarding resources and services, but instead must provide what will be useful and of interest to user information needs. The library should embark on a market survey or user assessment to understand what will be needed and then provide to user and must be segmented in such a way that everyone or group of users will get what they want appropriately and satisfactorily (Jarad 2020).

Cost (rather than Price): this entails the cost of identifying and satisfying the user's information needs not just the value of the service offered. It includes the user's commitment to getting the required information resources and services, which encompass many things: the user's determination to move from one place to another to satisfy his information resources and service needs, the efforts and the contentment derived from the resources and services. The price is irrelevant and only one aspect of the total cost of providing the resources and services to the clients, which is the prime objective of the library (Jarad 2020).

Convenience: the essence of convenience is to ensure that the library user is getting resources and services without impediments. With the Internet and its associated services, the library user does not need to go somewhere in particular for him to access resources or services. He/she can access them remotely from the library web page, online public access catalogues, mobile alerts and social media pages of the library using his fingertips. Online services also simplify ways of accessing and getting information about the resources and services through current awareness services, and perhaps mobile messages through SMS (Jarad 2020).

Communication: This involves the interaction between the user and the librarian in connection with the resources and services to brainstorm and share ideas that will improve the quality of the services and enhance the user satisfaction. Communication includes the following formats: advertisements, personal selling and public relations using mass media, such as radio, television and social media technology, print and online media and any medium for communication to inform both current and prospective users of the availability of resources services of the library (Jarad 2020).

The 4Cs theory emphasizes the customer rather than the product. The customer is given priority and deserves to be served with the right information, resources and services according to their desires and expectations by the organizations or the libraries not just what they feel he wants. The cost is not more than identifying the correct products to satisfy the client. Convenience refers to the effectiveness of the library in making information available to the customer without any impediments and ensuring the use of the appropriate medium of communication to inform customers of the product and services (Jarad 2020). Based on the market, the 4C marketing mix concentrates on the user, making user demands the central point, creating complete contact with users to understand user needs and providing convenient services (Jarad 2020). Although the theory has numerous challenges like any other theory with regards to application and practice, however, it is still relevant and useful. Therefore, the theory was used for the study. The following section discussed the SERVQUAL model.

2.5. Service quality model

This section discusses the services quality model (SERVQUAL). Every library aims to provide adequate qualitative information resources and services to their users; hence medical libraries will not be an exception. These resources owned by the libraries need to be marketed (Patil and Pradhan (2014). However, it has been observed that the medical students do not significantly use medical library resources and services. Essential services, such as e-mail, electronic alerts, selective information dissemination, online databases and electronic resources consortiums are not even available in the libraries. These are some of the issues the current study seeks to address through both broader and specific objectives. On the other hand, the conceptualization of service quality, its relationship to satisfaction and the techniques for measuring it have been a focal subject of the services literature during recent years. Service quality stays elusive, hard to describe and measure. There is not even a general understanding of the meanings of quality (Parasuraman, Zeitaml and Berry 1997:171).

Quality is a difficult concept to quantify; however, the ability to authenticate it is significant in assessing whether the industry/library provides the service that serves the consumer's desire because consumers play a vital role if a business is to succeed (Borgave 2015). Ramya et. al. (2019) viewed services as any benefit provided by one party to another that is fundamentally immaterial yet does not result in the ownership of anything.

This explained why Martin (1999) identified the unique difference between services and product. These include:

i.   Simultaneity/ Inseparability: since services are designed and used at the same time.

ii.   Heterogeneity: the quality of services tends to vary from one location to another, from one individual to another and even from hour to hour;

iii.   Intangibility: service cannot be seen, touched, tasted or dropped on one's foot; and

iv.   Perishability: since services are created and used concurrently, they can't be stocked.

The above arguments by Martin (199) clearly spell out the uniqueness of services from the products in organizations generally. However, services in libraries may not be different but the most important thing is that the services help in marketing the products and facilitates satisfaction of the products to the customers (users) efficiently.

Service quality refers to the standard of library services as determined by the needs and expectations of users. This implies that users' priorities must be considered in providing services (Udem, Ikenwe, and Ugwuamoke 2020).In other words, service quality is referred to as the ability of a service provider to satisfy users efficiently, so that he can improve business performance (Ramya, Kowsalya and Dharanijiya 2019).It was the opinion of Parasuraman, Zeithaml and Berry (1985) that service quality is built on both how the consumer evaluates the service provision techniques and the outcome of the service.

According to Martins (2003) SERVQUAL is an analytic instrument created in the 1980s, which measures service quality regarding client desires of an impression of service. Similarly, Pena, et al. (2013) state that SERVQUAL developed in the late 1970s, because of various research proposing ideas and operationalization and systematization for quality services. From another perspective, the SERVQUAL model was originated in 1985 by Len Berry Parasuraman and Valarie Zeithaml. The SERVQUAL method to deal with service quality built the most significant move in our understanding of both customer and organizational response to the

issue of managing service quality. These scholars have published an assortment of research initiating, creating and enhancing their unique model (Kasper, Helsdingen and Gabbott 2006).

Three years later, they published their approach for defining and quantifying service quality, SERVQUAL. Their commitment called for measuring both perceived performance (P) and client expectation (E). One key to expanding quality was to maximize the difference between these two measures, (P-E) - briefly to go beyond client expectations. Parasuraman et al. in 1985 published a conceptual paper recognizing five service quality gaps (Grapentine 1998and Kasper, Helsdingen and Gabbott 2006). Asogwa, Ugwu, Ezema, Asadu and Ugwuanyi (2014) submit that the SEVQUAL model is a 22 item instrument that assesses users' expectations and perceptions of service across five dimensions. The instrument is developed using both qualitative and quantitative research in many service industries. According to the original instrument developers, the key to providing high-quality services is to match users' expectations and perceptions. Moreover, the research utilizing SERVQUAL strategy, as opined by Stverkova (2015) depends on the gap model. The procedure in this manner works with a gap between the diverse parts of the way toward giving service that the client perceived. These gaps, according to Pena et al. (2013) are summarized and can be considered with the following definitions: the gaps:

Gap 1- Not knowing what users want to receive;

Gap 2- Not selecting the right design of the service and established standards;

Gap 3- Not delivering the standard service;

Gap 4- Not marrying performance with promises; and

Gap 5- Set up based on the four earlier gaps;

Gap 5 = f [gap 1, gap 2, gap 3, gap 4]. However, the above assertion shows that there is the need to bridge the gap between user expectation or demands and the service provision or performance to ensure the needed quality services. Also, to prove whether a gap exists between the performance and the users 'expectation is by engaging the users via a questionnaire, focus group or interview etcetera to quantify the quality of services provided through those who experienced it. Parasuraman (1985 et al.) in their work and Johnston (1995) used focus group interview and questionnaires, respectively.

Thus, the primary objective among service organizations is to provide high-quality services that meet users' needs. This explained why the service quality model (SERVQUAL) is becoming more important (Asogwa et al. (2014).The quality of a library, on the other hand, has traditionally been appraised and determined by the magnitude of the collections within it, rather than what the library does regarding giving an efficient library service to users. Hence, quality now implies a multi-dimensional concept that can be approached from different points of view (Somaratna and Peiris 2011:170). Asogwa et al. (2014:4) emphasized that a new method for understanding and evaluating the quality of modern libraries has emerged and that this has changed their primary focus from a resource-centred approach to a service-orientation approach. In addition, the main focus in the librarianship has changed from services centred to user centred approach.

The service quality of a library in this context refers to the difference between the users' point of views, the actual services received and the expectations about the services. Similarly, Udem et al.2020) asserted that service quality in the library involves the user's assessment of the perceived expectations of library services with the perceived services. This implicitly implies that for service to be regarded as quality, it must meet the expectations of users. In other words, it has to be what users want. However, in considering the many definitions of quality, it is indeed significant to remember that one of the most important issues referred to is the need to fulfil the needs of clients, which leads to satisfaction, which is central to service quality (Gathoni and Van der Walt 2016).

Therefore, the SERVEQUAL Model was designed as a yardstick for assessing service quality in different fields. It answers the question, how well does an organization or a library serve its users from their perspective and how well does it assist in delivering quality services to maintain the existing library users (Somaratna and Peiris 2011 and Asogwa et al. 2014). Martin (2003) found SERVQUAL very useful when it was used to measure ten library services. This explains why it was emphasized that SERVQUAL is a valuable analytical tool that has been proving to be efficient in giving out a picture of the service quality of libraries. The tool was created using the gap theory, which states that high-quality service is achieved by bridging the gap between users' expectations and perceptions. (Gathoni and Van der Walt 2016).

Expectations in the satisfaction literature according to Parasuraman, Zeithaml and Berry (1997) are "forecasts" made by customers on what is probably going to occur during an upcoming transaction. In the literature on service quality, however, expectations are the needs of customers, that is, what they believe a service provider should offer rather than would deliver. Other advantages are; the model also measures the quality of service about the differences between them. Similarly, the theory estimates how effectively the facilities and services provided by the library complement the customer's expectations. It provides the technology for measuring and managing service quality and can also highlight the perceived service flaw and what specific action can be taken to address them (Ahuja, Mahlawat and Masood 2011).

It can be further used to evaluate an association's quality along every one of the five service measurements by averaging the distinction scores on the things making up the measurements. It can help the extensive variety of service and retailing organization in evaluating user expectations about and the feelings of service quality. It likewise helps in pinpointing areas needing managerial consideration and activity to enhance service quality (Parasuraman, Zeithaml and Berry 1997:189-191). It is evident that customer expectations and perceptions constitute two main concepts in service. Assuring that there is no gap between the two translates into service quality and the foundation of service quality (Gathoni and Van der Walt 2016).

Furthermore, the SERVQUAL model has some specific standards that are used by clients in evaluating service quality. They fit into ten potentially intersecting dimensions. These are: reliability, responsiveness, tangibles, competence, understanding, communication, credibility, security, courtesy or knowing the customer and access. The dimensions were later changed and merged into five areas that are used today. These include tangibles, reliability, responsiveness, assurance and empathy (Stverkova 2015). These instruments also refer to five determinants of quality (RATER) and reflect the essential criteria that customers find very important in judging quality, namely:

- ➢ Reliability: the ability to give out the required service consistently and accurately;
- ➢ Assurance: the knowledge and the readiness of employees and their ability to convey trust and confidence;
- ➢ Tangibles: the presence of physical facilities, equipment, personnel and materials for communication;

- ➢ Empathy: the capability to be compassionate and paying attention to the aspirations of the individual customers; and

- ➢ Responsiveness: the willingness to help and the ability to give prompt library services to the customers (Ramya et.al.2019).

Figure 2.5 below shows the scope of the SERVQUAL Model to determine quality service, as well as the elements that are involved and how they are connected.
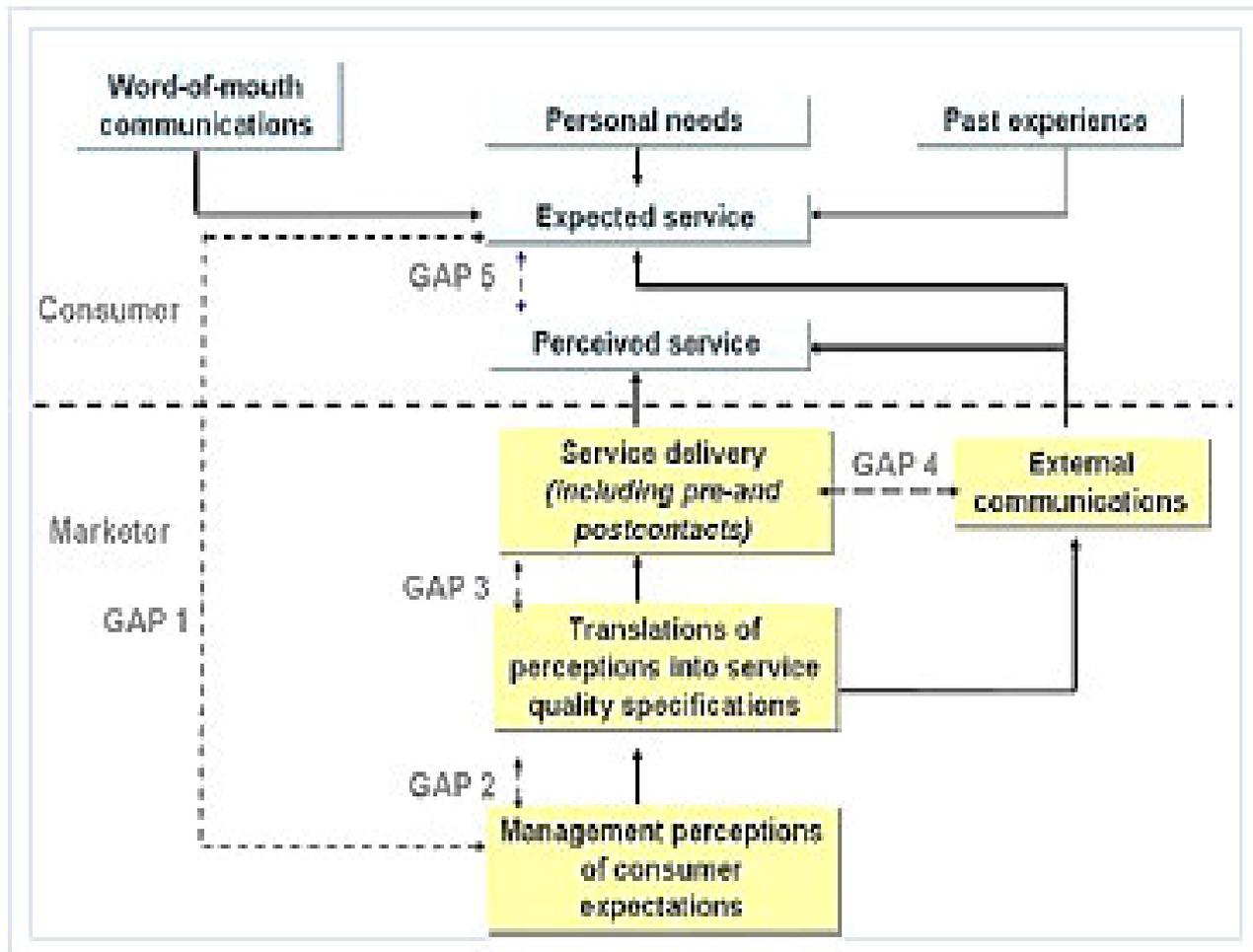
Figure 2.5: The SERVQUAL Model

A simplified model of service quality (Adopted from Daniel and Berinyuy 2010:47)

The above diagram (Figure 2.4) describes the underlying process that is used in the SERVQUAL model to assess service quality based on customers' perceptions and satisfaction. The model is suitable for this study. As stated earlier, every library aims to deliver satisfactory qualitative information resources and services to users. However, in the case of the current study, information resources and services are not given the attention they deserve in medical

libraries. More so, there is the absence of some essential services that will facilitate access to the information resources and services, namely e-mails alerts, SDI CAS, etcetera, hence adopting the SERVQUAL model to guide the study. The researcher was inspired and used the SERVQUAL model because of the magnitude with which it measures service quality, as highlighted above. It is used for measuring the service quality of some organizations and has been adopted by most of the services industries. The literature also indicates that it has been used in the library and information science field for decades, specifically, academic, public and special libraries, for measuring one service or another or else a full library service. More so, the decision to use this model to guide the current study was influenced by the reason that medical libraries like any other type of library require quality resources and services. That is to say a service that is built on the needs and the expectations of users. This model is therefore, all about the quality of the products that library would provide and the strategies to use. The constructs in the theory speaks louder about the theory and the paragraph below discusses them in details.

Examples of this can be found in the work of Asogwa et al. 2014, Ahuja, Mahlawat and Masood's 2011 and Einasto 2014. Researchers from several disciplines have developed and utilized SERVQUAL to assess service quality in a library setting (Kiran 2010).. The elements in the theory of the SERVQUAL model are therefore, operationalized below about the current research.

1. Reliability: this refers to how useful and relevant the library resources and services are, namely the books, periodicals, reference resources, databases, reference services, user orientation and current awareness services, among others, because the library should only provide what users want and not what they do not want.

2. Assurance: this refers to the most competent personnel with the required professional qualities, who will be entrusted to do the marketing job and be passionate to deliver the available resources and services proper to the users.

3. Tangibles: this implies the availability of resources and facilities that will ease the marketing of information resources and services. They include computers, printers, the Internet and related library facilities.

4. Empathy: this relates to the degree to which libraries pay more attention to the users' information needs, both on an individual basis and collectively, by using different strategies

that will facilitate the efficient provision of these resources and services. This may include the personal/individual effort in the promotion, publicity and advertisement by the personnel through mass media, the library web page and the library orientation, etcetera.

5. Responsiveness: The degree to which libraries ensure the judicious use of human and material resources to give timely information resources and services to its users. That may include the use of social media, e-mail, the Internet and related communication facilities.

Therefore, quality service cannot be achieved unless the existing gaps are bridged that the service providers meet or exceed the user's expectations. The principles and practice of the libraries are based on the provision of the right information to users at all times. So, that is why there was a selection procedure from which the acquisition of proper information resources to the users is decided and knowing their wants and providing those needs or demands accurately is a key to service quality. Hence, the theory was adopted and used in the study.

The construct that guided this study, based on the above theories, can be found in Table 2.5 below

Table 2.5: Constructs in the theories

S/N	4Ps and 7Ps Construct	4Cs construct	SERVQUAL. Construct
1	Product	customer	Reliability
2	Price	Cost	Assurance
3	Place	communication	Tangibles
4	Promotion	convenience	Empathy
5	People		Responsiveness
6	Process		
7	Physical evidence		

The above constructs were used and answered the research questions in the study, as can be seen in Table 2.6 below.

Table 2.6: Mapping Research Questions with the Constructs in theory

S/N	Research questions	Constructs (7Ps, 4Ps, 4Cs and SERVQUAL.)
1.	What resources and facilities are available to facilitate the marketing of resources and services in medical libraries?	The product, place, people, process, physical evidence, reliability, tangibles, responsiveness and convenience
2.	What marketing strategies and techniques are currently employed in `meeting the users' needs in medical libraries?	Promotion, communication, process, physical evidence, people, assurance, empathy, and responsiveness.
3.	What factors adversely affect the effective marketing of information resources and services that are needed by users in medical libraries?	Product, price, promotion, place, people, process, physical evidence, responsiveness, tangibles. empathy, assurance, reliability customer, communication, cost and convenience
4.	What measures can be employed to facilitate the effective marketing of information resources and services for users in medical libraries?	Product, price, promotion, place, people, process, physical evidence, responsiveness, tangibles, empathy, assurance, reliability, customer, communication, cost and convenience

2.6 Justification for the integration of 4Cs, 4Ps and 7Ps theories/SERVQUAL model

Information resources, services and facilities for marketing in medical libraries: for effective marketing in medical libraries, there is the need for adequate and relevant information resources and effective information services and facilities. In this regard, both the 7Ps and 4Ps marketing mix emphasize that products (information resources and services) are available in the organization (library) and rendered to customers. What these theories emphasize is that organizations (medical libraries) are supposed to offer pertinent and adequate products (information resources and effective services) to satisfy their customers' (user's) needs. To this

end, the SERVQUAL Model emphasizes that physical facilities, equipment, personnel and materials for communication are expected for quality services.

The Marketing strategies and techniques to be employed by medical libraries: for the effective marketing of information resources and services in medical libraries, there must be effective marketing strategies in place to attract users to patronize their resources and services. In this case, the 4Cs, 4Ps and 7Ps marketing mix stresses that promotion entails communication between the marketer (librarian) and customers (users) to introduce and promote the product (resources and services). In the context of this study, the strategies to be adopted by medical libraries must be adequate to entice users to available information resources and services. In this regard, the SERVQUAL model postulates that the capability of medical libraries to be compassionate and pay attention to the aspirations of the individual customers (users) effective marketing strategies are necessary.

The Challenges faced in marketing information resources and services to users in medical libraries: marketing information resources and services in medical libraries like in any other organization involves several challenges. These include inadequate resources and facilities, ineffective services and ineffective marketing strategies. Without adequate information resources and facilities and effective services and strategies, the marketing process may not be successful. In other words, the absence of quality product/tangibles, place/convenience, promotion/communication and empathy, as advocated by the 4Cs, 4Ps, 7Ps and SERVQUAL will render the marketing ineffective.

The Measures to be employed in addressing the identified challenges in marketing information resources and services to users in medical libraries: marketing of information resources and services in medical libraries, as highlighted above, was affected by several challenges, such as inadequate resources and facilities, ineffective services and ineffective strategies and so on. Hence, adequate and relevant information resources coupled with effective services must be provided to address these challenges. This aligns with the product, promotion and communication construct in 7Ps, 4Ps, and 4Cs. Therefore, quality product/tangibles, place/convenience, promotion/communication and empathy should be ensured as advocated by the 4Cs, 4Ps, 7Ps and SERVQUAL.

2.7 Summary

This chapter began by explaining two key research terms, namely theoretical framework and theories that were relevant to the research. It also discussed the features and the suitability of the theories primarily chosen that supported this study; these being the 4Ps, 7Ps 4Cs and the SERVQUAL model. The 4Ps theory emphasizes marketing products. At the same time, the 7Ps centred on the service aspects of marketing and 4Cs emphasizes on the customer (user), which is all of significance to the effective marketing of information resources and services. SERVQUAL on the other hand, emphasizes the quality of services to users by bridging the gap between the users' expectations and perceptions. These models were found to be suitable for the study because of their reliability and applicability in the present study.

However, the major constructs in the 4Ps 7Ps and 4Cs model that were discovered to assist in answering the research questions in this work are the product, the price, the place, the promotion, the process, the people and the physical evidence. While the primary constructs in the 4Cs model are the customer, communication, cost and convenience. Similarly, the study was also guided by constructs in the SERVQUAL model namely reliability, assurance, tangibles, empathy and responsiveness. These models were also, reviewed and guided various other studies, as indicated in section 2.2, 2.3, 2.4 and 2.5, respectively. The study was on the marketing of information resources and services in medical libraries. The chapter concluded by matching research questions to the constructs in the theories and the justification for the integration of the theories that guided the study. Chapter Three will discuss the review of the related literature.

CHAPTER THREE

LITERATURE REVIEW

3.1. Introduction

This chapter presents a review of the existing literature based on the research questions and variables of the study. The gaps in the literature are also identified. The aim of a literature review, according to Jumoke (2018) is to support one's argument. It also outlines the propositions and suggestions that others have already presented. The aim of a review of the literature was to summarize and interpret the findings of the literature. Interpretation can take several forms, namely criticism of results and identifying research gaps (Schryen, Benlian, Rowe, Shirley, Larsen, Petter, Wagner, Haag and Yasasin2017).This indicates that reviewing literature in either of these patterns will enable the reviewer to add, delete or bring something new. Mudvanhu (2017) assert that the term "literature" refers to a summary of what has been written by others. Mudavanhu (2017) further stressed that the literature aims to identify, summarize, critique, highlight the limitations of the previous works, identify the gaps and inform the proposed research. A literature review is intended to explain a subject of research to improve understanding of the subject under investigation (Ganiyu 2020).

In addition, the aim of a literature review, according to Creswell (2018) intended to give a framework for evaluating a study's significance. It serves as a comparison point for comparing study results to other findings. It also informs the reader about the findings of other research that are related to the one under investigation (Creswell 2018). A literature review, according to Fernandez (2019), is a summary and evaluation of the pertinent body of work, such as published conference papers, academic articles, book chapters or indeed the complete book. A literature review is necessary as a foundation for any research effort. It defines the study's context, critically analyses the research methodologies utilized in existing literature, and supports study decisions (Mohamad Tarmizi, and Aziz Hussin 2021). In the same way, the aims of a literature review, according to Mohamad Tarmizi and Aziz Hussin (2021) include evaluating, analyzing and synthesizing the study's strengths and weaknesses and also identifying research gaps to produce critical evaluation and judgment. In this regards the purpose of literature in the present study is not different from the aims highlighted by scholars above. Most importantly it facilitates selection of literature sources in various forms that will address the specific area of interest to the researcher.

The present literature review meets all these characteristics. This can be found in Chapter 3 mostly. For example, in terms of criticisms, there are instances where the researcher criticizes the opinion of scholars; for instance, Osinulu et al. (2018) was criticized because the scholar failed to be specific on the information resources to be provided. Similarly, there are other several instances where the opinion of scholars was integrated and synthesized (see Aderibigbe and Farouk 2017, Busari, Ayankola and Ladipo 2015 and Adegoke 2015 in section 3.2.1 paragraph 5). So, also identifying central issues. In building bridges between related topics, you find that most of the related marketing studies do not discuss marketing facilities. Therefore, the current research is a bridge-builder in this regard and so on (see section 3.2.3).

There has been a growing professional and intellectual awareness in the field of LIS marketing advocacy initiatives of professional bodies, namely CILIP, IFLA, and others, appear to have encouraged libraries in many regions of the world to begin marketing efforts in libraries (Mahesh and Gupta 2013:388). In South Africa, the Library and Information Association of South Africa (LIASA) has a marketing and advocacy interest group (MAIG) whose mandate working with IFLA is to increase the visibility and effect of library and information professionals in the pursuit of sustainable development as spelt out by the United Nations 2030 agenda (LIASA 2019). In Nigeria, the Nigerian Library Association (NLA) as a professional body has a mandate to safeguard, promote the establishment and development of libraries and information centres and advance the professional interests of the librarians in the country (NLA 2019). However, there is no clear evidence indicating that advocacy campaign on marketing is taking place in the country. This has been established after analysis of NLA programmes and events on their website.

A study on LIS marketing literature using Google Scholar for the period of 2000-2011 by Mahesh and Gupta (2013) identified prominent journals, such as Library Management and Library Review, to cite a few as the leading journals that publish LIS marketing literature. Statistics show that 457 journal articles on LIS marketing were published by scholars between 2000-2011 (Mahesh and Gupta 2013). From this expansive list, 31 articles were listed as the most cited and the article by Wakeham (2004) on health libraries in Britain is reported to be amongst these. This research output on medical libraries does not include Africa as very little literature was found on the marketing of medical libraries in general and specifically in Nigeria.

Nonetheless, databases and research engines were searched, such as Google Scholar, a Science Direct, EBSCOhost, ProQuest and the Electronic Journal of Academic and Special Libraries, International Journal of Advances in Library and Information Science, International Journal of Library and Information Studies see section 3.1.1.for comprehensive list of database.

Most of the literature discussed here is on marketing academic libraries because that is what was available, particularly in Nigeria. Also, all types of libraries have certain common objectives, such as the provision of information resources and services to their users. These are achieved through the provision of the available resources and virtually almost all the libraries used the same basic resources. What differentiates one library from another is the subject nature, for example medical library, law library, academic library and so on.

However, the present study focused on the resources, services and facilities for marketing, strategies/techniques for marketing, challenges associated with the information resources and services marketing within the libraries as well as the measures employed to address the identified challenges. Marketing concepts and its application to libraries play the same role in all libraries, that is, to provide an avenue to attract patrons to attain the optimum use of resources and services of the library through the application of effective and suitable strategies to reach out to users. The current research addresses the following research questions and the literature review is presented and discussed in a contextual order from global to African and Nigerian perspectives (see section 1.4 for the research questions).

The literature reviewed in this section was empirically and theoretically obtained from print sources as well as electronic sources, such as e-books, books, journals and databases and so on. This chapter is organized based on the themes underpinning the theoretical framework and the research questions. The review of the literature was therefore based on the following themes:

3.1. Resources, services and facilities for marketing;

3.2. Strategies/techniques for marketing;

3.3. Challenges associated with the marketing of information resources and services in the libraries;

3.4. Measures employed to address the identified challenges; and

3.5. Review of related studies.

The next section discusses presents list of databases consulted and the search terms used

3.1.1 List of databases consulted and search terms used for the literature review

Table 3.1 1: List of databases consulted and search terms used for the literature review

S/N	List of database S	Search terms	Date range
i.	Library philosophy and practice	Marketing information resources and services,	June to November 2016
ii.	Intellectual property rights Google scholar	marketing in libraries,	April to September 2017
iii.	Electronic Journal of academic and Special	marketing in academic libraries,	April to October 2018
iv.	Research gate	Marketing medical libraries	January to October 2019
v.	Academic research journals	marketing in Nigerian medical libraries,	January to December 2020
vi.	Emeralds	marketing of information resources services in USA medical libraries	June to November 2016
vii.	EBSCOHOST	marketing in medical libraries, in Europe	June 2016 to December 2020
viii.	SCOPUS	marketing in medical libraries,	June 2016 to December 2020
ix.	Science Direct	marketing medical libraries in Africa	June 2016 to December 2020
x.	Web of science	Marketing in libraries	April to October 2018
xi.	DOAJ	Marketing medical libraries	April to October 2018
xii.	JSTOR	Marketing medical libraries in Nigeria	June 2016 to December 2020
xiii.	Scrip of Science	Marketing information resources	June 2016 to December 2020
xiv.	AJOL	Marketing medical libraries	June 2016 to December 2020
xv.	E-Granary	Marketing information resources	June 2016 to December 2020
xvi.	PdfDrive	Marketing resources and services in Africa	January to December 2020
xvii.	Z-Library	Marketing resources and services in USA	April to October 2018
xviii.	ProQuest	Marketing medical libraries in Nigeria	April to October 2018
xix.	International Journal of Library and Information Studies	Marketing resources and services	June 2016 to December 2020

3.1.2. The Concepts, purpose and application of marketing in libraries

Marketing is an approach to sharing knowledge: it synthesizes information into a gift that your users can open and use immediately (Kennedy and LaGuardia 2017). This indicates that marketing simply means identifying and providing the information needed of a user. According to Olorunfemi and Ipadeola (2018) marketing is all about keeping in contact with users and keeping them aware of resources and services relevant to their needs. The effectiveness of marketing in university library depends mostly on persuading users that the databases are desirable; they should alert the users to become aware of the services and be excited about the benefit they provide. This in essence would attract users to come and make use of the library resources and services. Aderibigbe (2015) stated that marketing entails understanding the library's aims and investigating the market needs and the library ability to provide those needs. It also involves promoting the library and its services and attracting users.

It entails the process of identifying user's information needs. The process of knowing the users' needs involves proper market survey and must be guided by the marketing objectives/goals of the library. The marketing goals of libraries, as identified by Bello (2015) may include attracting patrons or users by promising superior benefits and growing an already established patron's base or users by delivering satisfaction. In the present study, therefore, marketing involves the process of identifying users and their information needs, with a view to meeting those needs. Olorunfemi and Ipadeola (2018) opined that marketing is all about figuring out what users want and creating strategies and services to meet those demands. As such, with the strategies in place users would be enlightened to know more about their information resource and service needs to support research, teaching, and learning. Mohapatra (2017) opined that the marketing of information resources and services consists of the following;

i.   Knowing the aim/ reason for the library;
ii.   Identifying the central occupation of the library;
iii.   Understanding the dynamics connecting the library and its close and general surroundings;
iv.   Knowing more about library clients to build a profound and symbiotic relationship together with;
v.   Assessing and observing the client's information needs intermittently;

	vi.	Determining the information resources and services that should be adequately presented for the client's information resources needs;
	vii.	Planning and designing recognizing resources also, services within the confinements of the existing resources;
	viii.	Creating consciousness between the clients on the presence and accessibility of resources and services;
	ix.	Monitoring the utilization of resources and services then; and
	x.	Evaluating resources and services regularly.

The preceding argument by Mohapatra (2017) are deliberate efforts to ensure that the proper channel has been followed by the libraries so as to provide the appropriate information, using the right format, to be accessed by the right user and at the right time efficiently.

On the other hand, Kennedy and LaGuardia (2017) highlighted the benefit of marketing, which includes allowing libraries to demonstrate their value and communicate that they appreciate the value of the resources they have and disseminate that value to users. Ramadevi (2018) maintained that libraries can use marketing to increase user satisfaction, promote their image and compete for users, resources and services. Moreover, Abbas, Khalid and Hashmi (2016) added that marketing is essential in providing any service, since it creates a demand for the user to patronize the products. It increases the user rate and provides them with appropriate facilities, which are critical to the organization's success.

In the context of this study, medical libraries through marketing can create awareness among their users on the various library information resources and services offered that can fulfill the patron's information needs. A few studies, such as Kutu and Olajide (2018), Lamba and Bhatt (2017) and Miracle (2018), found to be relevant areas that the current study is centred around because the study is on the marketing of information resources and services.

The need for a well-established marketing structure in the libraries to promote the use of resources and services efficiently is vital. Murugesan (2017) reiterated that there is a pressing need to market library resources and services because it is the library's mandate to meet user's requirements and get the information resources and services needs satisfied. Further, it assists in maintaining the status of the library and visibility as a valuable community resource for rising expectation of clients as well as the survival of libraries. This indicates that it is only when libraries engage in marketing their information resources and services, then they will be

able to meet their objectives. Kutu and Olajide (2018) noted that information technology has opened up new avenues for the delivery of information services. The challenges of budget cuts, the rapid growth of resources, increasing user population, rising costs, networking requirements, database vendor's competition and the complexity of information needs prompt information professionals to employ marketing to enhance the management of libraries and information centres. As such with the ICT in place, the medical libraries would be able complement what they lack in terms of resources and services and at the same time to reach out to their users regardless of their locations.

However, Bello (2015) added that the only way libraries could demonstrate their continued importance to society is to distinguish themselves from other information providers. In addition, the only way they can maintain funding agencies' support is to market their information resources and related information services vigorously. Before these developments, libraries were known to be the main information providers to the communities they were serving and were meeting their expectations based on the availability of resources within their reach. They provided censored, relevant and well-organized information, unlike the emerging information agencies whose resources are complex, cumbersome and full of unauthenticated sources or fake information (Bello 2015). Nonetheless, the emerging information agencies can complement the libraries, especially with regards to various authentic online information sources.

Medical libraries can equally grasp this opportunity to market their information resources and services to clients and attain the maximum use of the resources and services. The marketing must be undertaken in such a way that they combine both the conventional and new technology-based resources and services to attract the new generation of users, who are so attached to modern and enabling technology. The "Millennial," "Next Generation" or "Generation Y" users have grown up in the midst of computers and several other electronic media, such as cell phones, CDs, DVDs and video games (Mclam, Storey and To 2006).

Moreover, IFLA's position on the use of enabling technology in LIS marketing has underpinned this view. This was revealed at its (2011) annual general meeting and conference in Hague. The International Federation of Library Associations and Institutions (IFLA) made a position in (2011) that Web 2.0. or use of social media on LIS marketing in libraries must be

adhered to. This was contained in its recent publications in the proceedings of the 145 IFLA *Publications of (2011), annual general meetings and conference that:*

> *The use of social media for library marketing is a major concern for professionals. The IFLA marketing section believed that the time had come to bring together information professionals to deliberate the use and importance of web 2.0. tools for marketing the 21ˢᵗ century library and information organizations* (Berard 2011).

Several papers written in English and French have been presented and discussed in the areas, such as:

Section i: Web 2.0. And marketing: general concepts: Deuff (2011) "The library 2.0. origins of the concept, evolutions, perceptions and realities";

Section ii: Adopting web 2.0. Strategies: Moulaison and Corrado (2011) "Staying free from corporate marketing machines library policy for web 2.0. Tools";

Section iii: Marketing with web 2.0. and the client: Dujol (2011) "Web 2.0: de nouveaux usages bibliotheque";

Section: iv: Case studies: Singh (2011) "How tangible is your library in the digital environment? Implications of social media marketing in reinventing communities' library experiences";

Section: v: International perspectives: Samb (2011) "Web 2.0. Tools and the marketing of libraries: the case of Africa" and so on (Bernard 2011 and Gupta and Savard 2011 in Garoufallou, Siatri, Zafeiriou and Balampanidou 2012).

Therefore, it can be concluded that the present study is aligned with the IFLA stance of marketing through Web 2.0 as indicated, because Research Question number one focuses partly on Web 2.0 or social media as marketing tools. As a result, librarians ought to harmonize resources and services as well as expertise to ensure that the resources and services of the library that are relevant to the needs and aptitudes of these users have been marketed effectively to attract them to become regular users of the library. This is in tandem with the IFLA position on Web 2.0. Ahmed and Zia (2019) noted that Web 3.0 is referred to as the intelligent web which allows users to read, write and execute web. It provides an integrated web experience and at the same time enables the machine to comprehend and catalogue the data in a human fashion (Ahmed and Zia 2019). The next section discusses the literature review map.

3.1.3. Literature review map

According to Creswell (2018) researchers should use the concept maps to create a literature review map. A literature map is a visual representation of other people's studies and it's usually depicted as a figure (Creswell 2018). Creswell (2018) further highlighted some advantages of literature mapping, which include:

i. It is used by students and researchers to organize their literature reviews and prepare presentations to graduate committees;

ii. It is used for summarizing the literature for composing an article journal publication; and

iii. It enables the researcher to understand how the study under investigation will add to or replicate the research been completed and so on.

In view of this, a literature review map was developed for this study. The literature review map below indicates how the literature for the study was organized.

TOPIC:
Marketing quality information resources and services in medical libraries of public universities in the North-Western geopolitical zone of Nigeria

SEARCH STRATEGIES:
mark. serv. markt. inf. res. markt. libs. inf. res. in medical libs. inf. resources

RQ1. What resources and facilities are available to facilitate marketing of resources and services in medical libraries?

SUB; THEMES:
Resources for marketing services, facilities, strategies/techn. Factors affecting marketing and measures put in

RQ2. What marketing strategies and techniques are currently employed in meeting the users' needs in medical libraries?

RQ1: Adegoke 2016

RQ 1: Lucas 2011

RQ1: Kumar 2017.

RQ3: Aderibigbe and Farouk 2017

RQ3 Wakeham 2004

RQ3. What factors adversely affect the effective marketing of information resources and services to users in medical libraries?

KEY:
- ❖ Mkrt……………Marketing
- ❖ Inf……………...Information
- ❖ Res……………Resources
- ❖ Serv……………Services
- ❖ Libs……………...Libraries
- ❖ RQ……………...Research Question

RQ4. What measures can be employed to facilitate the effective marketing of information resources and services to users in medical libraries?

RQ2. Shehu 2015

RQ2 Kennedy and LaGuardia 2017

RQ4 Ramadevi 2018

RQ4 Adegoke 2015

Figure 3. 1.3: Literature Map

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Beginning from the topic, the search strategies used themes and subthemes in the review. The map also highlighted some different articles that were used in addressing the research questions 1-4 of the study. The subsequent sections discuss resources and facilities for marketing in medical libraries.

3.2. The resources and facilities that are available to facilitate the marketing of information resources and services including medical libraries

This section discussed the resources, services and facilities for marketing in medical libraries. This is done by conducting a comprehensive review of the related literature in the relevant fields. The next sections discussed information resources for marketing in medical libraries.

3.2.1. Resources for marketing in medical libraries

Libraries require marketing their information resources and services to develop a symbiotic relationship with the users and to foresee the trends to utilize online information. Marketing information in the library is drawing the attention of the available resources in the library to clients and the conducive atmosphere to use such resources (Agboke and Effiong 2020). Marketing library resources and services is creating the right products inform of books and non-book material and letting the right people (the patrons) know you have them and creating conducive environments for utilizing the resources. These resources include journals, books, newspapers, CDs, databases and electronic journals, etcetera (Agboke and Effiong 2020). This is in line with 4Ps and 7Ps marketing mix theory, referring to the product as anything that can be provided to fulfil the needs of a market. These include books, journals, e-mails, reference services and so on (Busari et al. 2014). Moreover, the view of Agboke and Effiong (2020) is important here. This is because it refreshes the memory of the users on the popular Law of Librarianship by Ranganathan (1931) namely; books are for use; every book its user; every user his/her book; save the time of the user; library is a growing organism (Ranganathan 1931 in Bello 2015:59). This indicates that the marketing of information resources is a concept that has been in the library for a long time, as it is referred to in Ranganathan's (1931) Law of Librarianship.

Alcock (2011) states that the libraries have expanded to include other resources in both printed and electronic format (for example, electronic books, audio books, DVDs, CDs and electronic resources); however, the guiding principles have remained consistent. Kennedy and LaGuardia (2017) submitted that libraries should provide as core resources:

i. Studying materials needed by students for selecting a course and a favourable study environment for the completion of that course;

ii. Academic staff members 'required books and journal articles as the necessary tools to keep up with the latest developments in their fields; and

iii. Online video content, including award-winning documentaries, training films and theatrical or dramatic releases and so forth.

Kennedy and LaGuardia's (2017) preceding arguments indicate that there is a need for medical libraries to diversify the provision of information resources from conventional books and journal articles to a range of multimedia, educational videos and documentaries relevant to their users' needs. Osinulu, Adekunmisi, Okewale and Oyewusi (2018) assert that libraries must be interested in marketing and use marketing principles and strategies to inform and draw the users to the library resources and services they provide. Osinulu et al. (2018) further emphasized that academic libraries have the primary responsibility to provide timely access to both printed and non-print, information resources to meet students' needs and the teaching staff. However, the authors' opinion was not specific on the resources to be provided to users that would meet their various demands and expectations. The resources or product for marketing ought to be clearly stated for understanding and use. Moreover, the information needs of medical students and professionals ought to be a combination of conventional books, journals, reference sources and technology-driven resources to meet their diverse needs. This is consistent with the SERVQUAL model, when they postulate that service quality involved those needs that the library desires to meet. At the same time, satisfaction relates more to a customer's experiences with a service provider, e.g., a library (Kiran 2010).

Kumar (2017) in his work noted that electronic information resources (EIR's) marketing could assist libraries to reach all their users and inform them about vast collection of resources that are simple, easy to use and of excellent quality. Academic libraries have moved from being conventional resources to e-resources and related e-services. These resources include electronic journals, electronic books or monographs, electronic data banks or databases, compact disc-read only memory (CD-ROM) and accessed information subject gateways via virtual reality or the internet. The proceeding argument of Kumar (2017) has hit the nail on the head, as the e-resources are suitable for the libraries to meet their users' objectives. But the researcher believes that a combination of e-resources and printed resources would be much better, considering the situation in Africa, especially Nigeria, which is yet, to sort out a stable power

supply, network and other infrastructural deficit, at least the printed copies, could serve as back up for the libraries. However, medical libraries should not be left behind in embracing this move and joint their counterparts to provide electronic resource and services as well as printed sources namely journals and e-books, e-databases, printed books and journals and another assortment of technology-driven resources and services to medical students and professionals.

In addition, Agboke and Effiong (2020) noted that a library without users is useless. Therefore, for the library to succeed users must be made aware of the library's presence and services. This can be achieved through marketing. Chegwe and Anaehobi (2015) noted that the merely having resources in the library is not sufficient; but the resources should be made accessible and useable to the satisfaction of clients. This shows that the acquisition of information resources alone is not enough to ensure accessibility to the resources, but that they need to be marketed to their users for optimum and effective utilization. This will enable (medical) libraries to justify their budget proposals to their parent bodies. This is align with promotion/communication constructs in 4Ps, 7Ps and 4Cs marketing mix theory referring to promotion as communication-related activities to notify the different users about the library and its resources and services.

On the other hand, Okon and Umoh (2014) concluded that the relationship that exists between the marketing of the product or service and the nature of the service or product influences how these resources and services are patronized. The resources available include e-resources, online public access catalogues and books. Sharma and Bhardwaj (2009) found that libraries market their resources particularly new arrivals, such as untested electronic patent databases and collection of e-journal articles, among others. Islam and Islam (2009) are of the view that an information product or item or service is a palpable or substantial resource taking in information (for example, monographs or books, an article in journals, compact disc read-only memory (CDROM), movies on videos or soundtrack). The research by Islam and Islam (2009) has spelled out various information resources, especially those that are online or computer-driven. However, the study disregarded other essential information resources, such as reference resources like subject and general encyclopaedias, dictionaries, unpublished thesis/ dissertations and so on, which are equally useful information sources.

Bhatt, Kumar and Yusuf (2016) asserted that there are many resources and services for a library that it can market. Every library should decide what it wants to market and how it wants to

market it. Some of these products are, compile bibliographies, a compilation of indexes and abstracts, specialists' profiles, current content files, a catalogue, in-house generated information products, bibliographies, new acquisitions, library publications, etcetera. Bhatt, Kumar and Yusuf (2016) highlighted several products for marketing in the library. However, they failed to mention the most common and important library resources such as books, journals, newspapers and magazines, reference resources, etcetera. This is a gap that needs to be bridged. Several studies (Aderibigbe and Farouk 2017, Busari, Ayankola and Ladipo 2015 and Adegoke 2015) have considered the resources for marketing in Nigeria. The nature of resources differs from institution to institution, state to state and over time. Aderibigbe and Farouk (2017), Shehu (2015), Busari, Ayankolo and Ladipo (2015) and Adegoke (2015) maintained that information resources are those materials which empower libraries to complete their roles successfully and can be in printed and non-printed formats, which include textbooks, journals, newspapers, magazines, indexes and abstracts, reports, CDROMs, databases, internet, e-mail, videotapes/cassettes, diskettes, computers, audio-visuals, encyclopaedias, dictionaries, handbooks and microforms. The studies mentioned various resources to be marketed in medical libraries but the studies did not consider the importance of theses and dissertations for marketing in the libraries, especially for final year students and other categories of researchers. Also, the studies have overlooked the fact that in Nigeria the provisions of most of these resources in medical libraries require huge financial backing and the availability of infrastructural facilities, which is wanting in Nigeria.

Busari, Anyankolo and Ladipo (2015) further noted that library products in the information sector could be described at three different levels. These are the tangible, the core level as well as the augmented level. The Core level consists of the essential products or services that are needed by users. The augmented level entails the quality, reliability, speedy and timely delivery of professional services experienced by the user in getting the product or services and so forth. This is in line with the 4Ps and 7Ps marketing mix when they emphasizes that products are the available information resources and services available in the library and rendered to users. Similarly, as indicated at the augmented level, these information resources and services must be relevant and adequate to meet users' needs, as advocated in the service quality model, which implies that the capability in paying attention to the aspirations of the individual user as well as knowledge and the readiness of librarians to convey trust and confidence. Hence, for achieving effective marketing information resources, library ought to provide the resources and services that would satisfy the users' need.

Amina and Nwanne (2015) and Upev, Akpe and Beetseh (2015) observed that librarians at various Nigerian universities provide a set of important resources and services to the entire client body comprising staff and students. The information resources offered include electronic resources and services, magazine articles, multimedia, blogs, personal experiences, expert opinions, encyclopaedias and web pages as some of the resources available for marketing in the library. In conclusion, it can be understood that the library resources or products discussed in the preceding argument show that resources or products are such physical material that conveys information in various forms in different subject areas to satisfy the needs of library users. This has been substantiated with the views of Adomaa (2021)in the 7Ps and 4Ps marketing mix when they refer to products as an item designed to meet the needs of library patrons or clients. The next section presents the services for marketing in medical libraries.

3.2.2. Services for marketing in medical libraries

This section discussed information services for marketing in medical libraries. This is done through a comprehensive review of the relevant literature on the related fields. Marketing of services in service organizations such as the library could be understood as a process that involves a step-by-step assessment of user needs and packaging of information to fulfil those users' needs (Mohammed 2019). Marketing, therefore, entails creating and promoting new services, raising client awareness of available services and determining their suitability (Chandratre and Chandratre 2015). The range of library-based services have changed over time, although many core services remain as they are central to library work but may be done differently. Different services may be provided for different groups of users. Chandratre and Chandratre (2015) pointed out some of the pertinent library services, namely notifying library users about acquiring new resources, such as online patent databases, e-journals, online versions of past question papers, plagiarism software and creating of Web page for them. These are essential and appropriate services that would entice users to patronize the library and its services. Hence, medical libraries should embrace such services for effective marketing in the library. Adomaa (2021) explained that the library provides services to users which include reference service, inter library loan services and user orientation services.

These services are essential because they are used to expose library users, such as medical students and other categories of users to source information for reference sources like encyclopaedia and dictionaries, resources from other libraries elsewhere and learn some study skills on how they can effectively use library resources and services through reference services.

Ransom and Wilfong (2016) stated that newsletters, awareness campaigns and workshops are all excellent ways to promote their services. The research highlighted several important services that will attract the patronage of the library and its resources by users. However, the research overlooked other useful services that enormously promote the use of resources and services primarily in medical libraries, such as the selective dissemination of information, reference and information services/help and so on.

Marketing according to Bhatt et al. (2016) is more than just developing and promoting new services and resources but also about creating awareness of existing services and resources for users. Some of these services are:

   i.   Selective dissemination of information (SDI):
  ii.   Current awareness service (CAS);
 iii.   Reference service;
 iv.   Document delivery service;
  v.   Information consolidation and repackaging;
 vi.   Translation service; and
vii.   Reprographic Service and so forth.

The information services mentioned above are such essential services that will entice the library users to patronise the library and use their services. However, the scholars did not consider one critical service: the students' borrowing/loan services. This enables the medical students to use a particular resource or services at their discretion, as they do not always have time to come to the library. Instead, they spend most of their time in laboratories.

This aligns with the principles of the 4Ps and 7Ps marketing mix and the SERVQUAL theories, respectively. The 7Ps marketing mix theory (1981) demonstrated that products (information resources and services) are marketed to users for their effective use. The SERVQUAL model also suggested that there should be reliability in the services provided to ensure their usefulness and relevance to users' needs. Billah (2015) notes that the library offers a number of services to the users such as traditional services, online services, abstracting, physical documents, catalogues, pamphlets, bibliographic services, subject bibliographies, reprographic services, lending service and CAS, SDI services. Kutu and Olajide (2018) noted that the services for

marketing in the library consist of referral services user education, lending materials reading list, bibliographies, indexing and abstracting, quick and long queries, among others.

These services are beneficial and required by medical professionals' mainly because some of them are needed to meet users' needs, which are unique due to the nature of their profession. They always require the latest findings from journals, publications and current books to enable them to manage the emerging health challenges or epidemics. Therefore, to ensure successful marketing through the utmost use of resources and services in medical libraries to occur, these services are essential and should be deployed to enable libraries to adequately provide for the information needs of medical students and medical professionals. However, Kumar's (2014) and Kopperundevi's (2013) works did not take into account other services, such as user education, reservation services, exhibitions and displays of newly acquired resources (such as books, journals, and reference sources). These are the issues addressed by Research Question One of the current studies. In other words, the resources and services available in the library.

Mandrekar and Carvalho e Rodrigues (2020) submitted that library updates, resource sharing, reference service and new arrivals are the major services provided. Mandrekar and Carvalho e Rodrigues (2020) have itemized various services employed in the library that can assist libraries in satisfying the needs of the users. If medical libraries were to apply these services, they would enormously shape how services are rendered while providing more service opportunities to medical students and professionals in meeting their requisite information needs.

Sumadevi (2014) noted that the utilization of technological tools in outlining and conveying library resources and services has continuously produced excellent outcomes in marketing or promoting the use of information resources as well as services using the internet and related facilities. These include the use of e-mail services, mobile online public access catalogue (OPAC), social media, discussion forums, electronic document delivery, the information alert services, e-question paper services and e-newspaper/web-based press clippings, among others. The availability of the internet-based services particularly in medical libraries would ensure efficiency because users can be promptly informed via e-mails when there is a new development in the library. They can interact with the library through social media platforms as well as access to the library OPAC at any place and time.

Ashrafi-rizi and Kazempour (2012) reported that services are provided in the medical libraries in both printed and electronic formats, for example, the printed means are the distribution list of new arrival books and other written documents, the selective dissemination of resources (SDR), the books on circulation, such as core books in different subjects and the display of books and personal relations. E-resources refer to the internet, intranet, extranet, email, tele-text, video-text and fax. The provision of these resources is a deliberate effort by medical libraries to adequately serve users as well as keep them abreast on existing and recently acquired resources for the optimum use of these resources.

Khan and Bhatti (2012) and Landis (2010) in Akindi and Al-Suqri (2013) state that social networks or media offers something other than what traditional methods for marketing library services do. It enables the client to create, associate, deliver and communicate information and helps the information centre or libraries to draw nearer toward their clients. It catches the eye of different clients. It aids in finding information and distance learning and knowledge sharing, among others, the social networks that include: Facebook, twitter, blogs etcetera. This indicates the critical role social media plays in marketing information resources and services to library users. Social media is a significant channel through which libraries can reach out to their users, especially now that it attracts wider usage among medical students and other new generation of users. In other words, medical libraries can use social media for marketing their information resources and services to help in reaching out the library patrons with pertinent information resources and services available. These are some of the issues the present study addressed. Osinulu et al. (2018) indicated that libraries provide the circulation of library resources, information services (manual, electronic and web-based), reference services, electronic access to resources and services, user education programmes, and readers' inquiry services.

All in all, the services above are very efficient. They would attract users of medical libraries to come to the library to use the resources immensely and get their information needs satisfied. Mohammed (2019) and Lamba (2019) found that printing and photocopying services, lending services, reference services, internet and e-mail services, user assistant service and interlibrary services are some of the services provided by libraries. Edewor Amughoro, Osuchukwu and Egreana (2016) observed that one or the entire information services offered by the library might perhaps be promoted or marketed to the clients and these include:

i.   Exhibitions;

ii.   Bulletins;

iii.   Display of new books;

iv.   Production and issuance of library guides;

v.   User orientation programmes;

vi.   Library week outreaches and other publicity programmes.

The services highlighted by Amughoro, Osuchukwu and Egreana (2016) above, if applied, will inform the library users about what libraries have to offer and at the same time teach them how they can access and use the library and its resources effectively. Edewor et al. (2016) and Shehu (2015) further added other forms of services that can be marketed are made up of circulation, reference, referral, indexing and abstracting services, customized research and development, bibliographic information, library users' advisory services, selective dissemination of information (SDI), information literacy services, CDROMS services, exhibition and display services and reservation services as well as television services. Findings from Edeworet al. (2016) and Shehu (2015) indicate several forms of services rendered by libraries for marketing to users. However, the authors did not explain in detail whether these services are accessible to all users and whether they serve the purpose for which they were provided, that is, giving the desired information services to the satisfaction of users. This is because having the services is one thing and accessing them is another. Therefore, this implies that a gap exists in the literature of services for marketing and the Research Question One of the present research addressed the gap.

Aderibigbe and Farouk (2017) and Okon, Ime and Etim (2015), Amina and Nwanne (2015) and Chegwe and Anaehobi (2015) opined that information resources comprise every medium that is used to provide the needed services to users, such as the use of printed and electronic resources. These services and products also include-classroom facilities, bibliographic services, indexing and abstracting services of books and journal articles and newspapers, lending and information services, reference services and reprographic services, among others. Libraries also provide access to multimedia resources, eBooks and electronic journals, special services, indexing and abstracting features and purpose, lifelong learning, cultural and societal activities and so on. Hence, marketing, indexing and abstracting services by academic libraries will improve customer awareness about the most efficient methods of finding

materials in the various subject areas they are working in and providing brief summaries of the subject of the resources by highlighting briefly the key concepts discussed in the documents. In so doing, it saves the precious time of clients.

Chegwe and Anaehobi (2015) added that the rising cost of information sources has made it very difficult for librarians and clients alike to get all information they require or even related to the material of interest. Accordingly, modern techniques of current awareness services (CAS) are sending individuals' direct notification of available information (Chegwe and Anaehobi 2015). Services are essential components of marketing and are part and parcel of promotion/communication as a construct of the 4Ps, 7Ps and 4Cs marketing mix. Without it, the marketing of information resources will be in vain. Okon and Umoh (2014) state that a relationship exists between the marketing and product or service and the nature of the service or product influences how those resources and services are patronized. Busari, et al. (2015) noted that the library could also increase information through quality, dependable, fast and appropriate professional services. According to Solomon (2011) services are the most difficult part of marketing in any organization because sometimes it is the relationship with librarians that people recall after the librarians must have forgotten which book or any library service is involved. Therefore, if the library intends to market the library as user-friendly, it should employ staff ready to help users to get their wants and not the other way round. This aligns with the SERVQUAL model maintaining that assurance entails the knowledge and the readiness of employees and their ability to convey trust and confidence. The following section discussed the facilities available for marketing information resources and services in medical libraries.

3.2.3. The facilities used for marketing in medical libraries

This section discussed the facilities used for marketing in medical libraries. This is done through a comprehensive review of the related literature on the areas. A facility may refer to services or pieces of equipment provided for a purpose (Soanes and Stevenson 2004). In other words, facilities in this study can be applied to any conventional means or symbols or conducive environment that will inspire users to patronize the resources as well as services or facilitate their dissemination to target users. Schmidt (2006) opined that libraries and information centres could copy from some services organizations, such as supermarkets, restaurants and internet cafes, airports, shops and banks, automated loan machines and view specialist study spaces with secured desks for postgraduate students, clients alike to have access

to all needed published, coffee joint facilities and computer workstations for training users on various aspects of computing and related skills have to be included. The previous submission by Schmidt (2006) indicated that libraries in general, especially medical libraries ought to emulate some services organizations, such as banks and supermarkets, thus providing the relevant facilities that will make the use of their resources and services convenient as well as make users comfortable. Marketing is about either retaining existing clients or attracting potential clients to continue to patronize the library which can only be achieved when there is a conducive atmosphere and the requisite facilities. Then clients would be attracted to use the library and its resources consistently.

Wakeham (2004) emphasized that the library might need to pull in a new a set of clients as well as retain existing clients in the case of medical libraries. This may mean broadening services, for example, giving room for group study or discussions or video viewing centre or facilities and may be the provision of a refreshment centre. In this context, it means adopting or adapting any facilities that may be required to use the library and its services proficiently. Therefore, medical libraries should see these facilities as very significant in attracting and making medical students and medical professional users comfortable at using library resources and services. By and large the provision of a 'right place' to access information resources and services is one of the principal constructs of the 7Ps, and 4Ps marketing mix theory that guided the study. To support this point, Samanian and Khosropanah (2016) refer to place as the distribution venue of the products and services of a library. This includes the main library, Faculty/College libraries, remote access via the internet/intranet, library web page, databases, tele-conferencing, video conferencing and social media. So also, in the 4Cs theory, convenience is essential in enjoying the products (resources and services) offered by the library. There and then, the user's expectation will be made, as emphasized in the SERVQUAL model.

Chamberlain and Brook (2011) added that health libraries conducted a marketing campaign focused on time-saving services and is entirely multidisciplinary, using notice boards and staffed canteen displays. Also, notices were posted around the library, stressing that staff members were willing to assist and request users to respect other users' right to study in a friendly atmosphere. Murugesan (2017), Kumar (2017), Bhardwaj and Jain (2016) and Khanchandani and Hasan (2016) states that libraries offer facilities and services, namely:

    i.   Web OPAC, and RFID (radio frequency identification) facilities;

ii. Automation services;

iii. Library portal and library website;

iv. Air conditioning facility;

v. Library online survey;

vi. Webcasts and web announcements;

vii. Online advertising;

viii. E-mail services;

ix. Social network site such as Facebook, Twitter, Flicker, YouTube, Blogs, Wikis, RSS, Web 2.0 and;

x. Cell phone facilities are useful tools/facilities resources and services marketing academic libraries.

The availability of these facilities in place would make the usage of the library resources and services amusing to clients and they will be encouraged to patronize library services consistently. Khanchandani and Hasan (2016) further reiterated that the introduction of the RFID facility in libraries in Delhi give the best reading facilities to clients. The facility will assist them for the simple loaning of books, self-check-out through self-check-in using a book drop box on premises and open 24/7 alongside the reading facilities. Others were excellent furniture, quality lightening and proper signage have been installed to encourage and expand readership in the library. A facility like RFID requires a constant power supply to function properly regarding check in and checkout of library resources. However, in Nigeria, due to the absence of constant power supply, the proper function of this facility will be seriously affected.

Patil and Pradhan (2014) identified the following infrastructural facilities for marketing information resources and services. These include

i. Frequent meetings between users and library staff;

ii. Internship programmes; students should be given the opportunity to work in the library;

iii. Good bandwidth and internet access facility should be made available with Wi-Fi connectivity to all users on the campus; and

iv. Reading hall facility should be available 24 hours a day;

v. Creating digital resources;

vi.   Online access to e-resources should be made available through a library gateway portal; and

vii.   Creation of a compact storage section to accommodate growing physical collections;

The research itemized numerous facilities that if deployed in Nigerian medical libraries, would effectively make them a suitable environment for reading, learning and research. It would additionally encourage users to regularly come to the library and use its available resources and services. However, the deployment of most of these facilities by medical libraries in Nigeria requires time to enable them to look for funds internally or externally because of underfunding. Odine (2011) noted that a good and friendly environment is needed to market library services effectively. To efficiently market a library's services, librarians should strive to provide an entirely reading and study atmosphere.

Thus, medical librarians should employ these facilities to make them a very comfortable place for learning and research that attract all categories of clients to patronize them and their resources and services enormously. However, there are users who do not want to have a silent library environment. Therefore, the library should consider providing an alternative for such users, for example, a musical or viewing centre, so that all user needs and interests should be served accordingly In support of this, Pakurár, Haddad, Nagy, Popp and Oláh (2019) noted that service quality could be described as a comprehensive user assessment of a given service and its degree to which it meets user expectations and provides satisfaction.

Osinulu et al. (2018) opined that library settings should be better. For instance, there should be enough reading space, seats, tables, restrooms and proper ventilation, orderly and noiseless library environments, clean toilet facilities, lighting, training programmes, services and innovative marketing strategies and the use of highly innovative library technology, applications. From the preceding, facilities refer to anything that will make access to information resources and services much more comfortable, convenient and enjoyable to facilitate its dissemination to target users. Therefore, for the efficient marketing of information resources and services to medical students and professionals, relevant conventional and sophisticated facilities need to be deployed in medical libraries.

Consequently, the available literature reviewed showed that not much had been written on the facilities for marketing information resources and services. Also, some of these facilities are

accessible in advanced countries; however, in developing countries like Nigeria, these facilities are not accessible due to inadequate funding and the dearth of some critical infrastructural facilities, such as a stable power supply and bandwidth. This shows that a gap exists in the literature about facilities for library resources and services marketing in developing countries and specifically in Africa. Hence, this is one of the issues Research Question One of the present study sought to address. More so, this is consistent with 4Cs marketing mix and SERVQUAL model when they emphasizes that convenience/tangibles are the presence of physical facilities, equipment, personnel and materials for communication to attain the qualitative and efficient marketing of information resources and services. The next section discusses the strategies/ techniques for marketing information resources and services in medical libraries.

3.3. The marketing strategies /techniques employed to meet the users' needs in medical libraries

This section discussed the strategies/techniques for marketing in medical libraries. This is done through a comprehensive review of the related literature on the areas. A marketing strategy is a set of activities to attain specific objectives; namely   a library's product or service to its patrons (Osinulu et al. 2018). Marketing strategy is an important part of the marketing plan (Eda and Ukubeyinje 2019).This means that marketing strategies are guiding tips that will facilitate how the library will inform users about its resources and services. It should be noted that the words "techniques" and "strategies" are intertwined and used interchangeably in the marketing literature. Sometimes, techniques may appear to mean a strategy or vice-versa, depending on what the author (s) presented at a point in time, but the two words should not be confused. Hence, marketing techniques can be anything an organization does to increase their organization's prominence and reputation. Similarly, they are methods of focusing on promising markets, branding their products creating and sustaining the leads to drive rapid development of higher gains (Hinge University n.d). In a nut shell, techniques simply means the methods used by libraries to understand and build a relationship with the user community to know their needs with the aim to provide for those needs. Conversely, according to Osinulu et al. (2018), strategy can be described as a complete statement of goals that an organization must accomplish. It can also be understood as a long-term, forward-looking planning approach with the primary objective of achieving sustainable competitive advantage. Marketing strategy, as opined by Shehu (2015) was a method that allowed a library to focus its limited resources on the most significant potential to enhance patronage and gain a competitive advantage.

Varadarajan (2010) stated that a library marketing strategy should be unified to specify rational decisions about resources, marketing events, market and marketing conceptions. Thus, the library in providing resources that benefit patrons concurrently satisfy its organizational objectives. In addition, marketing strategy in the library environment can be described as a plan of achieving a specific objectives of promoting library resources or services to users (Osinulu et al. 2018).

Kennedy and LaGuardia (2017),Yi (2016),Kumar (2017), Edewor et al. (2016), Aderibigbe and Farouk (2017), Amina and Ngwane (2015), Bello (2015), Aderibigbe (2015), Okon and Umoh (2014) and Enweani, (2018) outlined some of the following strategies used by libraries to brand their resources and services:

    i.   Social networking sites (such as YouTube Twitter, blogs and Facebook,) provide the facilities and various libraries presently utilize the enabling environment that allows users to associate, interact and team up along with colleagues online in their promotional and other canvassing activities. This is because social networking sites can favour clients to produce information content that can be dispersed between the members to look at, communicate and expand;

    ii.   Library websites and other communication media can be used to convey all library information. Printed materials that are still acquired, such as books, periodicals and journals publications and reference resources, such as encyclopaedias and dictionaries and so on, can be displayed at the main access points to attract users' attention. Colourful posters, brochures and printed newsletters aid to promote up-to-date information about library events and keeping users abreast about the changes in the library. Also, SMS alerts, use of published guides to promote services and resources, use of statistics, an annual calendar of events, feedback forms, one-to-one conversations, notice boards, fliers and handbills, surveys, radio, and e-mail alert, advertising in print media or directories;

    iii.   Pasting the new information in notice boards, public relation strategy, use of newspapers and magazines for marketing and the involvement of staff into the marketing activities to ensure optimum use of information resources and services and like of them.

iv.   Others are sharing students union newsletter; this web-based letter produced at intervals can be used to convey changes to opening hours, reminders of the current services options and alerts to newly introduced services; and

v.   Patron training on how to access the different resources of the library; through regular orientation, library week, workshops and seminars and any programme or course with any of the teaching faculty that will emphasize to users on some of the resources or services of the library;

The forgone arguments indicates the number of marketing strategies both conventional and online that can be used to promote the use of resources and services in libraries. Therefore, medical libraries would equally require these strategies to inform medical students and practitioners, especially the websites, social networking sites that attracted the attention of new generation of users about the availability of resources and services for optimum use. This is in line with 4Ps, 7Ps, 4Cs, and SERVQUAL model when they postulates that promotion/communication and responsiveness constructs involve communication through interaction between users and the librarians in an effort to notify them about the library resources and services and the willingness to ensure that the resources and services are provided timely.

Furthermore, AlAwadhi and Al-Daihani (2019) noted that social media marketing can facilitate libraries to improve networks that allow users and non-users to communicate and interact with one another about their information needs. In addition, it has the prospects to draw the attention of academic libraries and their resources, services, activities, events and new arrivals among users. AlAwadhi and Al-Daihani (2019) added that social network is now a crucial avenues of accessing and sharing information and interacting with users to ascertain information needs and meet those needs some of which may lead to libraries that are more efficient, effective and trustworthy. A number of authors (Osinulu et al 2018, Kennedy and LaGuardia 2017, Yi 2016, Kumar 2017 and Edewor et al. 2016) reiterated on critical marketing strategies that if employed by the medical libraries in Nigeria can effectively entice clients to patronize their resources and services. Thus, unless the libraries put all efforts towards marketing their resources and services the users will not patronize them effectively. This depicts why any service organization like the libraries that advertise their products satisfactorily will attract more patronage than others. Therefore, medical libraries must do anything within their powers to make sure that optimum use of the resources and services is achieved. Bhatt et al. (2016) and Martin-Yeboah, Alemna

and Adjie (2018) noted that marketing of library resources and services is a significant determinant of library's performance and users' satisfaction. Libraries must comply with desired marketing attitude through understanding what users need and adding value to their information needs and expectations. Some of the promotion strategies identified by the researches include:

   i. User orientation;
  ii. Face to face communication and through website;
 iii. Display of latest arrivals;
  iv. Annual report;
   v. E-mail is used to inform users about new resources and services;
  vi. User training;
 vii. Pamphlets/brochures;
viii. creating non-user awareness and raising awareness to entice users;
  ix. text messages; and
   x. Surveys are the most common strategies used for marketing electronic resources.

(Bhatt et al. 2016, Yi 2016, Kennedy 2011, Blazquez and Marcos Recio 2013).

The above submission by the authors above on marketing and promotional tools is cumbersome. It lacks clarity as there is no mention of specific information marketed to attract users. Whether through flayers, banners and skyscrapers, text messages and so on. Marketing strategies should be clear, so that the medical libraries users can clearly get to the messages passed across without ambiguity. Moreover, one of the important thing to do to better market information resources and services to users is for the library and librarians to exercise expertise in their conduct to attract and relate to the users. In this regard, medical libraries should provide the right products and services, available and accessible, to users by employing the pertinent and most suitable strategies, provide a conducive environment and organise competent library staff. Efficient marketing help to ensure excellent use of library resources and services among medical students and medical professionals respectively. Fought, Gahn and Mills (2014) reiterated on the need of libraries to properly communicate on the importance and contribution of their institutions' mission to remain critical. Hence, the strategies to consider are:

   i. To help shape the collections and services of libraries to address these needs;
  ii. To develop a marketing programme to better understand the needs of library users; and

iii.   Then ensure that certain collections and resources are made aware of.

The above argument by Fought, Gahn and Mills (2014) is vague. It lacks clarity for users to understand neither the marketing programme nor the library resources. Similarly, creating awareness for these resources and services are unequivocal. Therefore, these needs have to be made clearer so as to understand the messages that are passed across.

Lamba and Bhatt (2017) stated that marketing aims to draw the attention and maintain satisfied users. It encompasses knowing what the user needs, communicating what is available and suitable to them. . In this note, Olorunfemi and Ipadeola (2018) found that staff friendliness, the provision of electronic access to information, organizing user education, creating a library webpage, exhibitions and display of new arrivals and face to face discussion with users are strategies used by libraries. Therefore, the aforementioned strategies are very efficient and if implemented medical libraries will be able to spread the messages as well as promote themselves overtly to patrons. At the same time, the patrons will have an opportunity to interact with librarians, enable them ask various questions, get satisfactory answers and satisfy all their doubts concerning information needs. This is in line with the4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model when they referred promotion/communication/ responsiveness as the interaction between the user and the librarian in connection with the resources and services. Also, to brainstorm and share ideas that will improve the quality of the resources and services and willingness to provide them promptly.

Khanchandani and Hasan (2016) mentioned that marketing strategies help to acknowledge the goals of an organization and further mentioned some of the marketing strategies deployed in the library, namely:
  i.   Newspaper and magazine extract services: newspaper and magazine extract services are customized CAS (current awareness services) delivered to a senior officers of the institute in digital format via their regular email.
  ii.   Discovery service: to have significance in research and expand the use particularly of e-resources, the main library has as newly bought into the EBSCOhost discovery service. This service has a unified index to web OPAC, institutional repository, e-prints and e-resources, such as databases, e-journal, books, standards and so forth. This joined index gives a search window facility to clients; and

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iii. Technical talks concerning subscription databases: for making clients informed and thus amplifying the utilization of e-resources, regular technical workshops are prepared as a significant aspect of reaching to its clients by resource persons.

Patil and Pradhan (2014) outline the following practical solutions to marketing library and information resources and services and by the libraries;

i. Increasing clients and library staff awareness;
ii. Providing specialized services to a particular set of clients, such as senior citizens, physically handicapped groups of clients;
iii. Drawing attention to provide products and proficiency; to identify the client's need and discover why they need information so as to figure out what they are trying to achieve;
iv. Utilizing media includes TV, audio-visual tape, radio; educational videos arranged meant for clients;
v. Find out who the clients are who don't utilize the library with the aim of focusing on such clients to persuade them to patronize the library; and
vi. Organizing talks by experts, seminars, debates, cultural programmes and so forth to entice in clients to maximize use of the available resources and services.

Patil and Pradhan (2014) further explained that it would be meaningful for different strategies to be framed for individual or segment of users' groups. Based on those above, it can be understood that it is essential for medical libraries to use all the means and methods necessary to get to know their different users across levels and disciplines; coupled with their information needs before they determine what to provide to them. This will enable libraries to market and promote the use of information resource and services by using the most suitable strategies that will encourage users' patronage. Ternenge (2019) further reiterated that some of the benefits of social media over traditional methods include targeting a specific audience and providing additional chances for libraries to reach out to their users and allow interaction with them. It is evident in this context that social media has become a more acceptable and efficient means of information sharing and dissemination. Therefore, medical libraries should embrace it entirely for marketing their information resources and services to reach out users regardless of geographical location.

Chandratre and Chandratre (2015) submitted that a market segmentation policy is vital. Segmentation divides a market into parts based on demographics, psychographics, behavioural characteristics and geographic location. After that, targeting comes, which is how the library identifies and specifies the group of users to whom the library and information services are to be addressed at every activity. The research has suggested segmentation policy as a marketing strategy; therefore, medical libraries should use this policy for marketing their resources and services to clients. For example, user groups may be segmented into senior academic medical professionals, namely, professors, senior lecturers and heads of units and departments as well as other staff of the college or faculty. Medical students could also be grouped as preclinical, clinical or postgraduate students. These will essentially enable medical libraries to efficiently identify the core information needs of each user group and be able to provide for their respective needs. Odunde, Akinde and Ojo (2014) concluded that the most effective marketing strategies used in providing services in academic libraries include information repackaging, placing adverts on internet and sending bulk text messages to library users.

From the foregone, it can be deduced that marketing strategies are about planned approach, which will allow medical libraries to interpret market and users for better services. Bhardwaj and Jain (2016: 120) opined that every library must follow a defined marketing strategy in order to meet users' expectations with library products. In this regard, Murugesan (2017) highlighted the following as strategies for marketing of information resources and services. These include:

i. Use of library wall space to display different kinds of library resources, for example. e books, e journals and database;
ii. Create a library web page for the users;
iii. All relevant library web sites include links to help services;
iv. Emails containing new library resources and instructions for finding information;
v. Seminars talks; and
vi. Exhibition and display of information resources.
vii. Attend academic lectures to inform users of library resources and services; and
viii. Orientation programmes.

Kutu and Olajide (2018) found that creating a conducive environment, library publication, display and exhibition and word of mouth are some of the marketing strategies used. This tallies

with 4Cs, marketing theory when it emphasizes that the essence of convenience is to ensure that the library user is getting the resources and services without obstructions.

Aderibigbe (2015) noted the display and exhibition and pricing strategies. The author mentioned pricing as one of the strategies used by the library, but then it is not clear which type of pricing the author is referring to, because in marketing generally products sold at a reasonable price facilitate patronage. However, in the library context, more often than not price means the cost of services, such as photocopying or sometimes to say the benefits derived from the use of services rendered by the library. In this regard, Samanian and Khosropanah (2016) referred to price as the use of the information that is given to fulfil the user's needs and the time spent or the struggle to obtain it. In other words, price entails the financial aspect, that is, the money generated from membership dues, reprographic services, internet access and overdue charges, etcetera. Ifijeh, Adebayo, Ilogho, Asaolu and Michael-Onuoha (2016) believed that libraries and librarians should have established strategies that will enable them to maintain significance to their users. These may be through packaging the library and its services. Packaging refers to putting things in place to invite clients and improve marketing in the library. Provision of suitable facilities, like the library building to be strategically located and resources both in print and electronic formats to consist of different subjects available in the university should be provided, as well as provision of related ICT facilities and the deployment of capable staffing in the library.

Adegoke (2015) and Shehu (2015) pointed out that promotion is largely concerned with the notifying patrons about what you do and what you cannot. The benefits of promoting library services consist of expanded support and the practical usage of library assets, the improved significance of the library organization and training users, and change in their perceptions about the library. In other words, a strategy is a component of adapting a complicated environment. By and large, the idea of strategy identifies with a corporate/organizational strategy that aids the organization in general towards the attainment of objectives. So, also, a physical environment that adequately houses resources and services with adequate space in a conducive atmosphere and capable of accommodating a significant number of users. These are some of the major strategies used to maintain a good relationship among the library and users. (Adegoke 2015).

Adegoke (2015) highlighted different types of strategies that can be used to inform and excite users on the available resources and services in the library. Therefore, medical libraries ought

to adopt these strategies for the promotion of information resources and services to ensure maximum use. Based on the foregone explanation it is evident that strategies are indispensable in marketing information products. Therefore, without effective strategies, resources and services at medical libraries or other library, users will not be aware of the available resources let alone access them. Osinuluet al. (2018) asserted that the library must take the advantage of the exclusive competitive advantage that library major competitors cannot have, including, more convenient location, high level of easy access to resources and services in the preferred format and high level of access to ICT applications, highly qualified library staff, resources and services. Anomia (2021) stated that the strategies for marketing in special libraries include word of mouth marketing, promotion, relationship marketing, advertising and social networking. These strategies if properly employed by medical libraries will attract users to patronize their resources and services.

Moreover, Ifijeh, et al. (2016) discussed the segmentation of library users, which will enable the libraries to achieve the following objectives. These include:

i.   To know the topmost subject areas;
ii.   Those who uses the services most;
iii.   To know the most recent users' complaints;
iv.   To know the most common competitive tasks; and
v.   To know if there are any repetitive complaints.

Equally, identifying different categories of users with their information needs will enable the library to focus on the utmost and dynamic marketing services as well as devise more ways over responding to those information needs (Ifijeh, et al. 2016).

Thus, strategies can be summarized as the use of relevant platforms to attract and retain actual and potential users about what the library has to offer concerning resources and services to maximize the usefulness of library products. Even though several marketing strategies have been discussed in the literature. It failed to explain if the strategies positively or negatively impact library usage of those resources and services. There is a need for feedback that informs readers, (generally medical students and medical professionals,) to what degree of impact the strategies are and how they can be utilized to influence future research and practice. Unless such issues are addressed, libraries will not realize the importance of what they have put in place and they will not have the buoyancy to apply the same strategies in different settings in

the future. These are some of the essential issues that this study sought to address. The next section discussed the factors adversely affecting the effective marketing of information resources and services in medical libraries.

3.4. Factors adversely affecting the effective marketing of information resources and services in libraries, including medical libraries

This section discussed the factors affecting marketing of information resources and services in medical libraries. This is accomplished by conducting a comprehensive review of the related literature in the relevant fields. The next section discussed the challenges for marketing in medical libraries**.**

3.4.1 The Challenges of marketing information resources and services in medical libraries

Libraries and information products and services marketing like any other system cannot be employed without noting the challenges that can hinder its effectiveness. It is a known fact that no system can run smoothly without one problem or another surfacing. Hence marketing product and services would not be likely to happen without problems. Ramadevi (2018) concluded that academic library staff are confronted with various challenges in the marketing of library resources and services, namely providing the necessary information, varied user, multiple demands and expectations, costs experienced for marketing, the lack of requisite knowledge of the notion of marketing and the library management lacks of support. The challenges of highlighted above, which are administrative specific, could be resolved if the library management does not shun its responsibility. This will give marketing the attention it so much deserves. Sikes (2018) found that transport and restricted access to technology and internet service are some of the challenges of outreach services in Washington Public library. Robinson, Kerr-Campbell and Patrickson-Stewart (2020) identifying that lack of access to grey literature and lack of organization led to the limited use of grey literature of marketing grey literature.

Adomaa (2021) added that several challenges could prevent the library from efficiently marketing its resources. These include, among other things, a lack of marketing common understanding about user requirements, absence of business competence between librarians and information scientists and a lack of awareness of how much information services may help improve research activity. This implies that efficient marketing can only be achieved in medical

libraries if they clearly understand the marketing concept as a whole. Bhuyan and Bipasha (2021) show that poor organizational policy, a lack of ICT friendly environment, a lack of appropriate knowledge of how to use tools, a lack of funds and a lack of regular power supply, among other things are the challenges of using social networks in marketing resources and services of the library. Other marketing challenges, as noted by Odunlade, Akinde and Ojo (2016) included inadequate skills network problems and a lack of funds. Thu and Lixin (2018) concluded that many libraries are entirely in need of funds while some others have inadequate funds to make provision for marketing. A few libraries looking for funds from grants or affiliation. Accordingly, libraries ought to have an independent source of funds for marketing separate from their overall budget. Therefore, the agencies responsible for budget allocation to libraries have to allocate funds explicitly for marketing because of the significant role it plays in the library.

According to Lamba (2019), Edewor et al. (2016), Lamptey (2016), Aderibigbe and Farouk (2017), Igwela and Owate (2016) and Enweani, (2018) other challenges of marketing in medical libraries are: lack of preparedness by the library to invest in marketing its resources and services and the absence of a marketing strategy, the presence of one digital promotional activity in the library, the absence of the social platforms used by the library to market its products and services, the dearth of facilities/tools, such as irregular power supply and lack of functional computers with internet connectivity, lack of awareness in the existence of the library products, shortage of fund and low computer literacy among library staff. The challenges of marketing of information and library resources as highlighted by Lamba (2019), Edewor et al. (2016), Lamptey (2016), Aderibigbe and Farouk (2017), Igwela and Owate (2016) and Enweani (2018), indicates that most of the libraries, particularly in Nigeria are not prepared for this task. Consequently, this adversely affects marketing of information resources and services in medical libraries. Therefore, a well-designed marketing policy is so much required if this goal is to be achieved. This is in line with 7Ps, marketing mix and SERVQUAL model which reiterates that process and reliability are the mechanisms and flow of activities by which the library delivers resources and services to its target users consistently and accurately. It includes the logistics, the marketing plan and all the other necessary steps to ensure effective and successful marketing of information resources and services in the library.

Igwela and Owate (2016) added that library and information services are confronted with numerous difficulties concerning marketing their services. These difficulties include foreign

exchange, the intangibility of products, difficulty in measurement and evaluation performance, level of illiteracy, users are difficult to convince and poverty levels. Chegwe and Anaehobi (2015) identify several other challenges which include: a lack of a marketing curriculum in library schools, the casual approach of librarians in supplying information, poor support of library management, the high cost of marketing perceived to impede marketing library services and ignorance of marketing concepts. The challenges of marketing information resources in the libraries, as highlighted by Chegwe and Anaehobi are not different from the ones highlighted by Igwela and Owate (2016). Funding is the most pertinent setback. This is because it is the livewire of the libraries. Unless it is satisfactorily addressed, then the marketing of information resources will continue to be ineffective.

Bello (2015) Amina and Nwanne (2015) and Okon and Umoh (2014) assert that the most significant challenge confronting the marketing information resources in Nigeria is finance, that marketing as should be obvious is a cost-intensive activity. The second challenge is user groups or clients' over-reliance on the internet (web information). Nowadays, individuals find getting information through the internet far less demanding and quicker than getting the same information through traditional information resources centres, for example, the library. A library staff attitude to work is another enormous challenge to information resources marketing in Nigeria. Unlike in most African countries, as reported by Edewor et al. (2016), the significance of marketing challenges in African universities include lack of a marketing plan, the absence of requisite facilities, underfunding and not knowing what to market. Furthermore, understaffing, poor work ethics, a lack of professional training on marketing and lack of library materials are challenges that libraries are still grappling with in terms of marketing information resources and services. Others are the diverse nature of services and clientele and the non-realization of information value. Above are some of the challenges of marketing information resources and services highlighted by the scholars from all angles. There are many more that are not included in the research. Hence, the need to tackle these challenges to ensure effective and efficient marketing information resources and services, particularly in medical libraries. The next section presents and discusses the measures put in place to address the present challenges of marketing products or resources and services in medical libraries.

3.5. The Measures employed to facilitate the effective marketing of information resources and services to users including medical libraries.

This section discussed the measures put in place to address the challenges of marketing of information resources and services in medical libraries. This is done through a systematic review of related literature in the areas. Libraries should market their resources and services to satisfy users, compete for users resources and services and promote their image (Ramadevi 2018). However, researchers were of the view that to address the challenges affecting the successful marketing of information resources and services in libraries, many things need to be done. There must be a combination of an efficient marketing policy, the provision of adequate funds, conducive physical environments, competent library staff, sufficient resources and enabling technology, among others. This, in line with the 7Ps, 4Cs and SERVQUAL model, which emphasize that people/process/customer/empathy/assurance should be the human components with requisite professional qualities and compassionate that will do the marketing job through the requisite procedures and flow of activities by which the library provides the relevant and effective resources and services to users.

Many recommendations have been proffered by different scholars. Garoufallou, Siatri, Zafeiriou and Balampanidou (2012),Ramadevi (2018), Patil and Pradhan (2014), Bello (2015), Adegoke (2015) and Abdulsalami and Salami (2013)noted that to address the present challenges, clients need to be taught about the library and information science discipline and master programmes prospectus and individual publications in journals. New technologies, for example, YouTube, blogs and wikis, draw in younger clients and provide opportunities for libraries to refurbish services and so on. Therefore, this can be accomplished by the continuous orientation of users to enhance their capacities.

Kumar (2014), Busari, et al. (2015), Ikonne, Onuoha and Madukoma (2013) and Aderibigbe and Farouk (2017) recommended that library staff ought to be educated about the ideas and principles of present-day marketing, computer application proficiency and promote and update their status. In addition, there is the need for continued staff development programmes through conferencces, seminars and workshops. This will change the impression and the trend of the library as a client-driven organization. On the other hand, Ramadevi (2018) Anafo (2014), Bello (2015) and Amina and Nwanne (2015) noted that the library could provide sufficient

funds through fund raising activities or engaging managers in seeking funds from philanthropists, both local and international organizations, for library support. This is because funds must be sufficient and on time given to the university management. This will, therefore, assist in addressing the challenges. This is consistent with the SERVQUAL model, asserting that the service quality involves those needs that the library desires to meet. Ramadevi (2018) and Opayemi, Akinade and Ojo, (2014) suggested that:

   i. Library staff should receive comprehensive training to improve their skills and knowledge about marketing information services. This may be done through seminars, workshops, knowledge sharing and conferences respectively;

  ii. Academic library ought to appoint a library personnel with the requisite skills and knowledge and therefore should conduct a market survey that include a variety of promotional activities. For example services such as indexing and abstracting, documentation and reference services etcetera.

 iii. The library ought to have a public relation officer to promote image of the library, establishing the relationship with stakeholders, media partner who supports for financing;

  iv. It is also suggested that, the library should be granted with appropriate funds. In order to effectively market their information products.;

   v. In addition, stakeholders should provide necessary supports regarding finance and infrastructure to implement the required strategies; and

  vi. Library users should also cooperate with the library professionals, so that they could be served better.

Adomaa (2021) noted that the library should come up with effective marketing strategies such as, use of social media and relationship marketing to market library services and set aside funds for collection development. Edeworet al. (2016) suggested that University libraries must outline a marketing approach that can be clearly understood by clients. Information and communication technology with constant internet connectivity ought to be set up by university libraries to communicate with a broad group of clients; social networking media or Web 2.0.,such as Facebook, WhatsApp and Twitter, etcetera, ought to be endorsed and robustly utilize as part of marketing library products and services and. Finally, library schools/departments must review the curriculum to include entrepreneurship and business models relating to marketing. The use of the social media as highlighted by Adomaa (2021) and Edewor et al. (2016) should be adopted by the medical libraries. This is because the social

media is one of the most important medium that daily attracts the attention of most generation "Y" users and it is cheap and affordable. Therefore, medical libraries should use it to reach out to them.

Upev, Akpe and Beetseh (2015) noted thata library should make it a priority of providing outstanding user service, thus improving its reputation as an information and services provider in this information age. Library and information services have to be (client) centered on satisfying their information requirements sufficiently and marketing library and information services should also incorporate user (users) needs, individuality, responsiveness, expectations, professional skills competencies and value-added services, relationship and quality of services. Agboke and Effong (2020) suggested that library managers ought to provide more funds for marketing information resources and services. In addition, they should always be ready to market their resources and services to users not just to stock the library. Martin-yeboah, Alemna and Adjei (2018) state that librarians need come up with comprehensive policy that will deal with contentious issues, including marketing and promotion policies that should complement the library's existing ICT policies and accommodate the overall vision of the institution.. Enweani (2018) suggested that librarians should be innovative and pragmatic to ensure that library resources and services are marketed to all existing and future library users. Also, social media should be used as a way of marketing library resources and services. Moreover, librarians should be encouraged to successfully develop marketing skills and competencies to successfully market their library resources and services. Above are the measures suggested by many scholars from all angles that will hopefully address the challenges of marketing information resources in libraries generally and medical libraries in particular, especially with the upcoming suggestion that will come at the end of this research. The next section discusses the synthesis of the literature review.

3.6 Synthesis of the literature review

Key findings in the literature indicate that the corpus of literature on library marketing in medical libraries is relatively small but growing. With advances in technology, marketing as a concept is a library function that is being adopted in libraries worldwide. The availability of information resources is not enough, as their utilization is also equally important. This gap in the literature will, therefore, be bridged by this study, which sought to explore marketing of information resources and services in Medical Libraries of Public Universities in the North-West Nigeria. Professional bodies like IFLA, CLIP and LIASA have identified advocacy

efforts as fundamental in promoting visibility and the use of information resources in libraries. Similarly, NLA as an umbrella professional body in Nigeria needs to emulate other professional counterparts like IFLA, CILIP and LIASA by coming up with advocacy groups, which can mobilise and influence library growth and development in the country. These advocacy groups will make LIS marketing receive the attention it deserves. Issues of funding, marketing policy, preparedness and facilities presently lacking in Nigeria's LIS marketing can be addressed. Libraries can then effectively face and resist the competitions posed by other emerging information sources such as Google, internet service providers and online book stores. The next section presents a summary of the review.

3.7. Summary

The chapter began by defining the concept of a literature review and its importance in a research such as this. It also presented the research questions that are to be addressed in the literature by the present study and further highlighted the literature search strategy employed by the study. The concept of marketing of information resources and services and the rationale for marketing them by libraries were discussed. The chapter indicates that unless and until libraries market their resources and services, they will continue to be under constant pressure from users. It also discussed major resources for marketing in libraries and the resources found available and accessible cut across print and non-print resources, which include books, journals, magazines, CDROMS, internet and databases, etcetera.

 The chapter discussed various services available and employed for marketing information resources and services, such as SDI, CAS, reference and information services, interlibrary loan and document delivery services. Others are mobile Public Access Catalogues (OPAC), social network services, indexing and abstracting and photocopying services, among others. The chapter discussed the facilities available and used for marketing information resources and services which include library website, cell phones and good physical facilities, such as quality furniture, reading hall facilities, seats, tables, ablutions, good ventilation and good bandwidth for efficient internet access facility, etcetera.

The literature reviewed and discussed several marketing strategies and techniques adopted by libraries. These include market segmentation, diversification strategies (new service to new customers), advertisements, face-face events, giveaways, use of mass media that is radio, TV, AV tape, video programmes arranged for clients, library week, seminars,

workshops, newspaper, magazines and orientation programmes. Others are the willingness and the resources of the library put in place, improving personal skills, the techniques and skills which are utilized to accomplish information about the market and the techniques and skills which are being used to encourage users to patronize the library and request resources and services, etcetera.

The chapter also discussed some of the challenges around marketing information resources and services which include the inadequate marketing knowledge of library staff, limited existing promotional programmes in the library, poor marketing environment and limited, dearth of marketing plan, not knowing what to market, the scarcity of facilities, finance, clients' over-dependence on the internet, staff attitude to work, irregular power supply, erratic/internet services, foreign exchange and inadequate ICT staff, among others.

The chapter discussed the measures employed to overcome or address the challenges such as that library staff ought to be knowledgeable about marketing ideas as well as the tenet of the present-day marketing, aggressively market their resources and services they keep for their users so as to garner more support from within and outside parent institutions and academic/medical libraries must outline efficient strategies for marketing with full emphasis on the clients. The deployment of ICT with constant network connectivity has to be set up by academic libraries /medical libraries to have the capacity to contact an ample group of clients; the library should provide sufficient funds for marketing because with money it can do almost everything to address the challenges and should endeavour to enlighten users on the implications of over-dependence on the internet as a source of information and so on. Moreover, the chapter highlighted the stand of IFLA concerning marketing of information resources and services in libraries, which was focused on the use of Web 2.0 or social media for marketing information resources and services.

Finally, it is evident from the literature that not much has been written about marketing of information resources in Nigeria, especially in medical libraries. This gap in the literature will, therefore, be bridged by the present study. Therefore, the insights from the literature were significantly used in designing research instruments. Moreover, the review of scholarship indicated that LIS marketing as a means of promoting use of information resources and services is a matter of concern worldwide that is gaining popularity. Chapter Four discusses the research methodology used for the study.

CHAPTER FOUR
RESEARCH METHODOLOGY

4.1. Introduction

Research methods are plans and procedures covering everything from general assumptions to detailed data collection, analysis and interpretation methodologies (Creswell 2018).In other words, the essence of research is to set a guide to investigating a specific research problem. Hence, the present study followed the same trend to a logical conclusion. Moreover, Bhattacharjee (2012) asserts that the scientific process implies a systematized setup strategy for organizing scientific knowledge on how to make up a substantial observation, how to interpret results and how to simplify them. In addition, one of the advantages of the scientific method is that it enables researchers to freely and neutrally examine previous models and earlier discoveries and engage them to open discussion, modifications or improvement. The following characteristics form the foundation of a scientific research:

i.   Reliability: Other researchers should be able to reproduce the scientific study freely and obtain comparable results if not the same;

ii. Accuracy: theoretical thoughts that are often difficult to quantify need to be described with such accuracy that others can use those explanations to qualify those concepts and test that theory /model.

iii. Parsimony: Researchers should always take the simplest scientific explanation when there are different explanations of a phenomenon; and

iv. Falsifiability: a theory must be expressed good enough that it cannot be refuted (Bhattacharjee 2012).

According to Kabir (2016) research is a scientific method of answering a research question and solving a problem by collecting, organizing and analyzing data in a systematic and organized manner with the ultimate aim of making the research usable in decision-making. This implies that research is a process of investigating to develop a solution to address a societal problem. Methodology is referred to the nature of the processes involved in the research and is the engine of one's research (Govender 2018).In view of the fact that methodological rigor determines the quality of the research process. Ngulube (2019) observed that rigorously

research is more likely to support practice and expand the frontiers of knowledge. In consequence, describing the methods used by a researcher is very important because it justifies why the research study was undertaken, how the research problem was defined, the population of the study and how it was obtained, how data was collected, the particular method adopted and how the data was analysed. This chapter will start by explaining the research tradition which informed this study.

4.2. Research paradigm

Research paradigm is a philosophical assumption about the world and how it is to be studied to understand a phenomenon and paradigms either an as interpretivism or a positivist stance (Ngulube and Ukwoma 2019). duPlooy-Cilliers (2014) notes that paradigms are more likely to be referred to as research traditions. In other words, they educate the researcher on how to conduct research effectively. As such Kivunja and Kuyini (2017) opined, the research paradigm is made up the abstract beliefs and norms that govern how a researcher views the world and how they perceives and behave within it. A paradigm is a set of conceptual beliefs and ideas that determine how a researcher sees the world, understand it and interacts within it. Similarly,Abdul Rehman and Alharthi (2016) note that a paradigm is a system of fundamental beliefs and theoretical structure with assumptions of epistemology, ontology, methodology and methods. In addition, it is a means to understand and study the true reality of the world.

Bryman (2012) noted that a paradigm is a set of beliefs that guides the researcher in a study and how to view work in a particular field. Kivunja and Kuyini (2017) identify the following as some of the importance of research paradigms:

 i.   Paradigms offer beliefs and dictates, for researchers in a specific subject area;

 ii. They manipulate what ought to be studied, how it should be studied;

 iii. They determine the outcomes of the study and how to be translated; and

 iv. The paradigm describes a researcher's philosophical orientation.

The foregoing therefore shows that a research paradigm is fundamentally aimed at giving the appropriate direction to a given research. In other words, knowing what a paradigm or tradition one ascribes to as a researcher, this is critical since it defines, which questions are worthy of investigation and what processes must be followed in order for the responses to be accepted

(du Plooy-Cilliers 2014:19). The next sections therefore give an overview of the major research traditions namely interpretivism, positivism, post-positivism and pragmatism. Reference will be made to the worldview adopted for this study.

4.2.1. Interpretivism

This is a research paradigm that is more concerned with an individual opinion and perception about a particular research phenomena. According to Chowdhury (2014) and Punch (2013) Interpretivism is a popular philosophical approach that allows people to understand the social world through meaningful interpretations of the world, which is hampered by others who have already interpreted the meaning generated as part of their daily activities. Interpretivism allows for a deeper understanding of a concept and an exploration of the world in which they live (Rahi 2017). The interpretivism research paradigm is also referred to as social constructivism and qualitative research.

Govender (2018) on the other hand, noted that interpretivists subscribe to the following:

i.   Believe meaning is inherent in human action;
ii.   Anti- positivist;
iii.   Distinguishes natural reality from social reality.
iv.   Interpret facts in context;
v.   Assign meaning to own experience; and
vi.   Focus on meaning making;

Abdul Rehman and Alharthi (2016) and Thanh and Thanh (2015) further added that interpretivists avert that:

i.   The epistemology of interpretivists is subjective;
ii.   Interpretivism believes in multiple realities that have been socially constructed;
iii.   Observers cannot have direct access to external reality without being contaminated by their worldviews, ideas and backgrounds;
iv.   The reality cannot be known as it is, because it is always mediated by our senses and;
v.   Truth and reality are created not discovered. The next section discusses the positivism paradigm.

4.2.2. Positivism

The positivist paradigm applies to the researcher's endeavour to clarify the phenomena he/she studies in the best economical way that is available (Kivunja and Kuyini 2017). Aliyu and Bello (2014) added that positivism can be understood as a research technique that is recognized in the ontological norms and principles that truth and reality are free and independent of the viewer and observer. According to Rahi (2017), the positivist paradigm encompasses scientific methodology, empirical science and quantitative research. Addae and Quan-Baffour (2015) noted that positivism believes that natural-scientific assumptions and procedures may be applied to the social sciences. In this respect, natural science assumptions and methods can be used to study social phenomena even though natural science is concerned with static nature. In contrast, social science concerns with more complex and dynamic nature of human beings. More importantly, methods of scientific inquiry are crucial in social science, as they seek to address social phenomena.

The positivist approach was proposed by a French thinker, August Comte (1798-1857). The positivist world view describes a world view of research, which is guided in scientific methods of investigation. Comte likewise proposed that experimentation, observation and reason in light of experienced should be the reason for understanding human conduct. In this way, there is legitimate means for expanding knowledge and human comprehension (Kivunja and Kuyini (2017). Kaboub (2008 in Aliyu and Bello 2014) noted that the concept of positivism came into being as truth looking for a worldview in the latter part of the nineteenth century because of Comte's censure of metaphysics and argued that only technical and scientific proofs can unveil the reality concerning the truth. Govender (2018:359) states that the positivist world is underpinned by the following:

    i.   Generalises results;
    ii.   It uses scientific methods to study human action;
    iii.   Assumes an objective world;
    iv.   Is not interested in meaning, but only proven facts; and
    v.   Searches for facts-facts through comparison and association of variables.

Kivunja and Kuyini (2017) noted that the positivist research paradigm employs deductive logic formulations of hypotheses, testing those hypotheses and providing operational definitions and

mathematical equations, calculations, extrapolations and expressions to arrive at conclusions. The next section presents the post-positivism paradigm.

4.2.3. Post-Positivism

Post-positivism developed from proceeding paradigms as people's ideas of knowledge changed (Ngulube and Ukwoma 2019). It proposes a new paradigm that has the potential to transform positivism from a narrow perspective to a more comprehensive approach to real-world situation (Henderson 2011). It is established on the assumption that the methods to be connected in a specific study ought to be chosen given the research question being addressed. Panwar, Ansari, and Ali Shah (2017) asserted that post-positivism was developed by researchers in response to the limitations of positivism as a paradigm. They discovered that positivism, which rests itself on observable and empirical analytical facts, did not meet the requirements for social sciences resources. Post-positivists believe in determinism, which states that causes (probably) influence outcomes. As a result, the problems explored by post-positivists reflect the necessity to evaluate the factors that influence results, such as those discovered in experiments (Creswell 2018).

Henderson (2011) noted the following:

i.   Post-positivism highlights meaning, unlike interpretivism and attempts to explain social issues;
ii.   That knowledge is not neutral (and never really is);
iii. Post-positivism indicates that the social sciences are often fragmented; and
iv.   All knowledge is built socially.

The next section discusses pragmatism paradigm.

4.2.4. Pragmatism

The pragmatic approach underpinned the study. This approach is considered appropriate because of its ability to allow for the integration of both qualitative and quantitative methods (Creswell 2018), see also, Ngulube and Ukwoma 2019). Kelly and Cordeiro (2020) noted that pragmatism is a philosophical and epistemological paradigm for interrogating and assessing ideas and beliefs regarding how well they work in the real world. It also aided research in dissecting the research problem and finding the aspects of the problem that respondents found

most beneficial. Furthermore, the pragmatic approach allows researchers to be flexible in their selection of methods to address research problems (Brierley 2017). More so, it allows them researchers to incorporate ethical considerations into their study and the inclusion of participants with varying degrees of knowledge, experience and control over the process under investigation (Kaushik and Walsh 2019).Pragmatism allows for a variety of approaches, worldviews and assumptions as well as distinct types of data collection and analysis (Creswell 2018). This therefore indicated that pragmatism as a paradigm allows a researcher to choose a methods that is suitable for the problem under investigation.

This makes it suitable as a reason for research methods mediating into the world and not simply observing the world. Some of the advantages of pragmatism include:

  i.   Pragmatism centres around what things will have any kind of effect and additionally interfacing abstract matters on the epistemological level to the procedural level;
 ii.   It focuses on the transferability, provides a paradigm that can create new disciplinary theories based in specific context; and
iii.   Finally, it makes strong emphasis on research questions, communication, and shared meaning-making and it prescribes a harmony amongst subjectivity and objectivity all through the inquiry (Baker 2016).

Tran (2017) added that pragmatism also enables the potential to and the probability of working back and forth between qualitative data and quantitative data, which is seen as irreconcilable and offers researchers a chance to search for constructive purposes of connection between the two types of data. Some of the features of pragmatism, as highlighted by Creswell (2018) include:

  i.   Pragmatism is not tied to a single philosophical paradigm, meaning that data can be collected from qualitative and quantitative means;
 ii.   Pragmatists do not believe in absolute unity in the world, meaning that the data for the research can be generated from different sources;
iii.   What works at the time is truth; and
 iv.   Individual researchers have total autonomy; that is to say, the researchers have all the freedom to source data from anywhere if the purpose of the research is attained.

Consequently, it was earlier stated that the present study was built on the pragmatism paradigm since the aim was to address the marketing quality of information resources and services in

medical libraries by applying different methods of data collection. The study used both quantitative and qualitative methods and the results of these approaches complement one another. Thus, the literature reviewed implicitly indicates that only a handful of research studies has used mixed methods in that area of knowledge. The reason may be that the field of LIS marketing is still a growing area of research in general and specifically in Nigeria. See Gupta, Gupta and Gupta (2019), Anyanwu, (2018) and Ani and Okwueze (2017) in section 3. 6. for details.

Furthermore, Ngulube and Ukwoma (2019) conducted a study on the cartographies of research designs in library information sciences research in Nigeria and South Africa. The study reported that LIS research there was dominated by positivist epistemologies (quantitative) and related survey research methods. Dissertations from Nigeria have not described their research paradigms. This means that the dominant paradigm in LIS research there is difficult to establish. There has been limited use of qualitative and mixed methods research methodologies (Ngulube and Ukwoma 2019). Based on the foregoing, it can be understood that the use of the pragmatism paradigm is not generally a common paradigm in LIS research in Nigeria generally and in particular marketing in LIS research. Due to the fact that research methodologies emerge from research paradigms, the next section discusses the research methodology and methods employed to answer the research questions and methods used to collect data, respectively. The next section discusses research methodology and methods.

4.3. Research methodology and methods

According to Kothari and Garg (2014) research is a rigorous and systematic search for relevant information on a particular topic. The "term research methods" refers to a logical explanation of the procedures and strategies employed in research (Eyaufe 2017). It is thus the researcher must understood not only research techniques but also the methodology employed (Kothari and Garb 2014). Research methods are structured and standardized in specified designs primarily quantitative in nature to minimize differences between responses to research tools. Flexible designs primarily qualitative in nature use unstructured data collection techniques to allow respondents to answer question as they wish (Ngulube 2019). In consequence, research methodology is a branch of knowledge that is concerned with a widely accepted rule of conduct for creating new knowledge (Chipeta 2018).

Ngulube and Ukwoma (2019) noted that research methodologies are quantitative, qualitative and mixed methods. Both are connected to positivism, interpretivism and pragmatism. Sarantakos (2013) argues that research methodology acts as a guide and clearly describes the path followed by research studies. It is a part of the research process in which assumptions about the nature of reality and knowledge come together (Wagner, Kawulich and Garner 2012).In a nut, shell research is all about spelling out the process of which a specific study will be carried out by using different approaches depending on the researcher's intention. The next section discusses research design.

4.4. Research design

Research designs fall within qualitative, quantitative and mixed methods approaches that provide defined rules for procedures in a research study (Creswell 2018). Davis (2014b) noted that a research design is a full plan of the entire study project. As a blueprint of a research inquiry, it is concerned with the whole research agenda (Ngulube and Ukwoma 2019). In other words, it is an outline of what you are going to do, from formulating the questions to collecting data and finalizing the final analysis. It was also mentioned by Kumar (2011) that a research design is a technical arrangement that is accepted by the investigator to address questions genuinely, equitably, precisely and efficiently. Through a research design, a researcher chooses and converses with others the choices regarding what the study design is proposed to be utilized, how respondents will be selected, in what way the data will be collected and analysed and how to convey the findings. Pandey and Mishra (2015) stated that a research design is a system of investigation that utilized a guide in gathering and dissecting data. A research design provides a solid foundation for the entire research. This makes research more efficient by providing maximum information with minimal spending. The authors further highlighted some of the purposes of a research design as follows:

    i.   To provide blueprint for plans;

    ii.   To provide direction;

    iii.   To minimize expenditure; and

    iv.   To provide an overview to other experts (Pandey and Mishra 2015).

Moreover, Bhattacharjee (2012) noted that a research design is a comprehensive plan for data collection in a specific research study. It is an outline of empirical research meant for research questions or testing hypotheses and must indicate no fewer than three ways:

    i.   The instrument development process;

ii.   The data collection process; and

iii.   The sampling procedure.

The primary role of a research design is to describe how to get responses to research questions. Its purpose is to describe how research questions are answered (Kumar 2011). Ngulube (2019) underscored the importance of a research design by noting that most research is well intentioned but fails to provide the anticipated result due to research design decisions. This means that to create research that is both reliable and beneficial to society, the study design to be adopted must be both appropriate and solid (Ngulube 2019).

Survey research as part of the research method was adopted for this study as one component of research design. It enables a range of techniques for recruiting respondents, collecting data and using different instrumentation techniques (Panto 2015). It is also a rigorous study approach, with scientifically proven approaches describing who to include, what and how to distribute and when to start the study and follow-up with non-respondents to guarantee a high-quality research process and outcome (Panto 2015). It can also use quantitative research procedures (for instance, utilizing questionnaires with numerically rated items), qualitative research strategies (for example, using open-ended questions), or the two systems (that is mixed methods). Survey method as opined by Mathiyazhagan and Nadan (2010) is a descriptive methodology used to gather primary data focused on verbal written communication with a representative sample of respondents from the target population. Some of the advantages of survey research, as pointed out by Mathivazhagan and Nandan (2010) see also Panto (2015) are:

i.   Access to a wide range of participants;

ii.   It is more ethical than experiments;

iii.   Faster data collection than other methods;

iv.   Relatively inexpensive data collection; and

v.   Survey data can be very accurate if sampling is probabilistic.

The next section discusses qualitative research method.

4.4.1. Qualitative research method

Qualitative research is inductive, indicating that the researcher looks for meanings and insights in a situation (Levitt, Motulsky, Wertz, Morrow and Ponterotto 2017). Creswell (2018)

described it as an efficient model in a natural context that enable the researcher to generate a higher level of information from actual experiences. In other words, qualitative research is an ongoing process in which the scientific community better understands the phenomenon studied by making new meaningful distinctions due to getting close to the phenomenon (Aspers and Corte 2019). This shows that a researcher can understand the problem under investigation better with a qualitative approach. According to Creswell (2018) qualitative research is indeed defined as an effective model in a natural context that allows the researcher to develop a level of detail from a high level of involvement in actual experiences. Similarly, Hammarberg, Kirkman and De Lacey (2016) stated that qualitative methods are utilized to answer the question concerning experience, meaning and viewpoint, most often from the participant. Bezuidenhout and Cronje (2014) highlighted some of the uniqueness of qualitative research concepts to include:

i.   It is hermeneutic;
ii.   It is textual;
iii.   It is interactive;
iv.   It is constructed and symbolic; and
v.   It is subjective,

In addition, Hilal and Alabri (2013) identified some advantages of qualitative research, namely:
i.   It describes phenomena about the viewpoint of the informants;
ii.   It discovers multiple realities; and
iii.   It develops a complete understanding of the phenomena within a specific context.

In view of the above, it can be understood that qualitative research is a kind of research that allows researchers to get in-depth knowledge of the research phenomenon by engaging respondents to have a deep understanding of the research problem. The next section discusses the quantitative research method.

4.4.2. Quantitative research method

Quantitative research, according to Mohajan (2020) is used to generate numerical data to quantify attitudes, views, actions and other specific variables and generalize conclusions from a broader sample population. Similarly, the approach can give a more extensive view and shield

research from inaccurate generalizations. A quantitative approach can give useful knowledge about the ordering of realism and materialized discourses. Furthermore, it can moderate individual partiality (Savela 2018). According to Rahman (2017) quantitative research centres around those parts of social behaviour which can be measured and designed rather than merely discovering them and translating the meanings people convey in their particular actions. Some of the advantages of quantitative methods, as outlined by Rahman (2017) include:

i.   A more significant sample; and
ii. It does not require a more extended time for data accumulation.

Some of the features of quantitative research include:

i.   The research study can generally be replicated or repeated, given its high reliability;

ii. The researcher has a clearly defined research question to which objective answers are sought;

iii. The results are based on large sample sizes that are representative of the population;

iv. The data is usually gathered using structured research instruments and so forth; and

v.   All aspects of the study are carefully designed before data is collected.

Therefore, this indicates that quantitative research is such an approach that gives room for the inclusion of numerous respondents. A large sample will be drawn to address a particular research problem. The next section discusses mixed methods research.

4.4.3. Mixed methods research

The challenges of developing of fully integrated qualitative/quantitative methods remains under investigation (Flick 2018). Timans, Wouters and Heilbron (2019) added that the desire to combine approaches has a long history in social science research. Plano Clark and Ivankova (2016) stated that mixed method researchers have dedicated tremendous attention and effort to choosing a name for this approach. For instance, the terms used include: "mixed-method research" (with a hyphen), "mixed method research" (nohyphen), "mixed methodology", "mixed method research" (no s), "multiple research", "methodological triangulation", "combined research", "integrated research and mixed research. This explains why for quite

some time words like multiple methods, combining methods, and triangulation have been used to describe empirical research involving various data analysis approaches for a long time. The term "mixed methods" is used for situations in which different components of the research process are integrated from both quantitative and qualitative methods. Multiple methods, on the other hand, are chosen from a single paradigm, meaning that using two different data collection methods in one paradigm. For example, interpretivism is adopted as a paradigm that guides the study and chooses interviews and observations as instruments for the data collection for the study.

Furthermore, as Flick (2018) pointed out, triangulation and mixed-method are terms that refer to the same idea but express it differently. The aim of mixed-methods research is to combine qualitative and quantitative techniques. Triangulation is broader in the kinds of methods that are combined, as it is often used as a combination of several qualitative methods (Flick 2018).Triangulation includes many different views, helps to prevent biases of a single technique or investigator and completes the connections between observation and theory building (Plastow 2016).The term "multiple method" as, highlighted by Plano Clark and Ivankova (2016)is used to combine multiple qualitative approaches, multiple quantitative approaches or multiple qualitative and quantitative approaches. Multi methods research, in other words, describes studies in which the researchers combine multi qualitative approaches (for instance, narrative and ethnographic research methods) or combine multiple quantitative approaches (for instance survey and experimental research methods) or both qualitative and quantitative approaches (Plano Clark and Ivankova 2016).Wisdom (2013) argued that mixed method involves a growing investigative method that enhances the methodological combination of qualitative and quantitative data in a research.

Schoonenboom and Johnson (2017) argued that a mixed methods design is portrayed by the mix of no less than one qualitative and one quantitative research constituent. The following features of mixed methods design are highlighted by Wisdom (2013):

i. Utilizing thorough strategies in gathering and breaking down data relevant to every method/technique tradition, for example, guaranteeing the suitable sample measure for quantitative and qualitative study;

ii. Collecting and breaking down both quantitative (closed-ended) and qualitative (Open-ended) information;

iii. Utilizing techniques that apply qualitative and quantitative parts either simultaneously or successively, by a similar sample or with various samples and;

iv. Outlining the strategies in theoretical models of investigation, for example, in a social constructionist model that tries to comprehend various points of view on a single issue; and

v. Mixing of data in data accumulation, analysis, or discourse.

The following rationales for mixed methods research are highlighted by Plano Clark and Ivankova (2016):

i. Triangulation;

ii. Offsetting strengths and weakness;

iii. Development;

iv. Social justice rationale; and

v. Complementarity.

On the other hand, Creswell and Plano Clark (2018) classified research appropriate for mixed methods to include:

i. The research that one source of information is inadequate ;

ii. Those whose findings need to be explained ;

iii. The research that the exploratory findings have to be generalized;

iv. Those research that the experimental design needs to be extended;

v. The multiple sources should be compared, and Multiple sources need to be compared; and

vi. The respondents need to participate in the studies..

Creswell (2018) identified six sets of mixed methods research designs:

i. The exploratory sequential mixed method is the opposite sequence from the explanatory sequential design. In the exploratory sequential approach the researcher first starts with qualitative research and examines the views of respondents. The data is then analysed, and the information used to develops on a second quantitative phase;

ii.   Convergent mixed methods design- it is a form of design of mixed methods where the researcher converged quantitative and qualitative data in order to get a comprehensive analysis of the research problem;

iii.   Explanatory sequential methods is one where, the researcher first carries out quantitative research, analyses, the results and then develops on the results to explain them in greater detail with qualitative research;

iv.   Multiphase mixed methods design is common in the areas of evaluation and programme interventions, sequential strategies are used in this advanced design in tandem overtime to best understand a long-term objective of the programme;

v.   Transformative mixed methods are a model that uses a theoretical lens derived from social justice. The data in this type of study could be converged with one building on the other, in sequence; and

vi.   The embedded mixed methods involves either convergent or sequential, use of data, however, the main idea is either quantitative or quantitative is embedded in a larger design (for instance an experiment) or the data sources play a supporting role in the overall design.

The advantages of mixed methods designed as highlighted by Almeidai (2018) include:

i.   Mixed methodologies are used when it is necessary to conduct both comparative analysis and the development of aspects of the study extensively and in-depth;

ii.   It is possible to overcome the constraints of quantitative and qualitative methodologies by using mixed methods;

iii.   It enables the researcher to obtain comprehensive information that cannot be obtained using each method alone.

Other advantages of mixed methods, as pointed out by Dawadi, Shrestha and Giri (2021) include:

i.   Mix methods allows the researchers to broaden and deepen their research;

ii.   It enables researchers to solve the same study question using both data sets;

iii.   It aids researchers in bridging the gap between quantitative and qualitative paradigms in terms of epistemology; and

iv.   It employs two ways to assist researchers in achieving more solid results etcetera.

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The next section discusses the explanatory sequential mixed method.

4.4.4. An explanatory sequential mixed method

An explanatory sequential mixed methods approach was considered appropriate for this research and hence was used for the study. According to Creswell (2018) the explanatory sequential mixed methods approach is when the researcher collects quantitative data in the first stage, analyses the results and then interprets the results to describe them in a qualitative approach. Almalki (2016) explained that explanatory designs are a two-stage design that sees the use of quantitative data as the basis on which qualitative data can be built and explained. In addition, quantitative data inform the process of qualitative data selection, which allows researchers to identify data relevant to specific research projects specifically. In the same way, Subedi (2016) added that the reasons for this approach are that quantitative data and results provide an overall picture of the study issue and additional analysis, mainly through qualitative data collection is likely to polish, expand or explain the over-all picture. Smith (2012) agreed with Creswell (2014) and asserts that sequential explanatory mixed methods entail the collection and breakdown of quantitative data and qualitative data. Smith (2012) added that the sequence can include the testing of hypotheses in an experiment as the first stage of the research, so that the researcher can comprehend and acquire more in-depth information about discoveries from the experiments; a qualitative research stage is conducted.

Subedi (2016) further illustrated the explanatory mixed designed that works in the collection, analyzing and the interpretation of data in sequence, as indicated in the Figure 4:1 below:
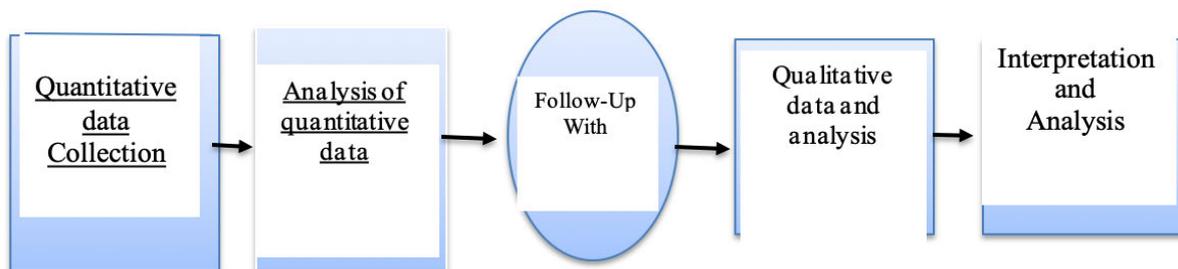
Figure 4.4.4 Explanatory sequential mixed methods approach

(Subedi 2016: 574)

Several scholars have discussed the strength and weaknesses of the sequential mixed methods approach (Smith 2012, Creswell 2018 and Subedi 2016).According to Creswell and Plano

Clark (2018) and Wachira (2015), the advantage of explanatory sequential mixed methods include:

i.   Its structures make it easy to implement because the researcher conduct the two stages quantitative, then qualitative-independently and only gathers one sort of data at a time;

ii.   The design often begins with a strong quantitative orientation for quantitative researchers;

iii.   The design provides emerging approaches where the second stage can be designed on the basis of what has been learned from the original quantitative stage; and

iv.   A research team is not required to carry out the design; and

v.   The final report can be produced by a quantitative section preceded by a qualitative section.

The next section discusses the population of the study.

4.5.   Population of the study

The population comprises the individuals, groups organizations, or other units that one wants to understand and to whom the study results can be generalized. It is the main focus of the study (Casteel and Bridier 2021). It consists of all the items that are being studied in the category of things (Denscombe 2014). In other words, population is a specific, conceptually defined set of possible participants to whom the researcher may have access (Casteel and Bridier 2021). The target population of this study consisted of two groups. The first group consisted of 6644 medical students in four universities in the North-West Nigeria. The second group consisted of 4 heads of medical libraries in the same universities. Table 4.1 below shows the relative population from each of the four universities understudy.

Table 4.5: Medical Student's population.

S/N.	Institutions	Heads of Medical Libraries population	Medical Students' Population
1	Ahmadu Bello University Zaria (ABU)	1	1671
2	Bayero University Kano (BUK)	1	3123
3	Kaduna State University (KASU)	1	250
4	Usmanu DanFodio University Sokoto (UDUS)	1	1600
	TOTAL	4	6644

(**Source**: ABU: Medical library students list 2015/2016).

(**Source**: KASU: Medical Library students' user record 2016).

(**Source**: MIS BUK: Medical students list 2016).

(**Source**: UDUS: Medical Library students record 2015/2016 session).

In accordance with the UKZN research ethics policy (UKZN 2007), permission was sought from the participants to collect data for this study. Even though it was granted, the respondents were also requested to consent to participating and given the choice to withdraw from the study. Further details on research ethics are provided in Section 4.10 in this chapter. This communication is attached as Appendix (16) in the appendices.

The next section below discusses the sampling technique and sampling for the study.

4.6. Sampling technique and sampling for the study

Pandey and Mishra (2015) noted that a sample is a small quantity of a population chosen for examination and analysis. It is an assemblage comprising a section or subset of the objects or people of the population, which is chosen for the expressed reason of representing the population. Taherdoost (2016) asserts that sampling is a technique for selecting a smaller number of representative individuals from a pre-defined population to serve as a study participants based on the study's objectives. This indicates that a researcher can get his specific population involved in the study through sampling procedures. Due to time and other constraints, research cannot contain all the people in the study. The advantages of sampling include better adaptability, an efficient method and the possibility for generalization (Pandey

and Mishra 2015). Sampling is an arithmetical procedure of choosing a subsection (called a "sample") of a population of concern aimed at making explanations and statistical deductions about that population Taherdoost (2016) submitted that probability sampling is a technique in which the probability of selecting every individual is very much the same to be mathematically realigned.

Etikan, Musa and Alkassim (2016) opined that non-probability sampling is a method in which samples are collected to ensure that all participants in the population have the same opportunity of being included. The respondents for the present study were drawn from the two groups of the study population. In this case, all the four heads of medical libraries were recruited as their population is small. Furthermore, a sample of 365 was drawn from the 6644 medical students using Krejcie and Morgan's (1970) formula for determining sample size, as the population is large. If a study's entire population is between 6000 and 7000 participants, then the sample size should be 364.Instead, this study used 365.To ensure proportional representatives in the sample size, a proportional random sampling technique was used to recruit the 365 respondents from the total number of medical students across the four universities in the zone. According to Mohammed (2019) proportionate random sampling is the process that make sure the sample is representative of the population under study in some ways. Consequently, the researcher used Krejcie and Morgan (1970) when recruiting the 365 respondents proportionately from the medical students as presented below:

(NxS):

TP

N=>unit size

S=>sample size=>according to Krejcie and Morgan =364

TP=>total population=>overall = 6,644.

ABU   = 1671   x 365/ 6644 = 92

BUK   = 3123   x 365 / 6644 = 171

KASU = 250   x 365 / 6644 = 14

UDUS =1600   x 365 /   6644 =88

Total   = 6644   = 365

Table 4.6: Sample for the study

S/N.	Institutions	Heads of Medical Libraries population	Medical Student Population
1	Ahmadu Bello University Zaria (ABU)	1	92
2	Bayero University Kano (BUK)	1	171
3	Kaduna State University (KASU)	1	14
4	Usmanu DanFodio University Sokoto (UDUS)	1	88
	TOTAL	4	365

Table 4: 6 above indicates that the study's total sample size (number of respondents) consisted of 4 heads of medical libraries and 365 medical students in four public universities. Therefore, the total sample size for the study was 369 respondents.

The heads of medical libraries were purposely chosen for the research as participants. There were four heads. According to Pandey and Mishra (2015) purposive sampling aims to select a sample in connection with a criterion, which is viewed as essential for the specific study. Bhattacharjee (2012) asserts that convenience or purposive sampling is a method that a sample is extracted from that section of the population that is within reaching, immediately accessible or convenient. Pandey and Mishra (2015) further emphasized that some of the advantages of purposive sampling are:

    i.   Using the best available knowledge about the sample subjects;

    ii.   Improved control of substantial variables, sample groups data can be easily harmonized and;

    iii.   Homogeneity of subjects used in the sample.

The researcher used the heads of medical libraries as the key informants for interviews because the heads are part of the university library management and have an in-depth knowledge of the study topic and are responsible for driving library policy and practice. The next section discusses the data collection procedure.

4.7. Data collection methods

The study used survey questionnaire, interview and observation for collation of the data. A data collection method is a way by which empirical evidence will be extracted from the source (Okite-Amughoro 2017). Whereas, data collection is the process of acquiring and evaluating the information on the variables of interest systematically that allow one to answer specified research questions, test hypotheses and evaluate results. Hence, the essence of data collection is to answer the research objectives under investigation (Kabir 2016). Thus, the data collection process is connected to administering research instruments for obtaining information from the study respondents (Odaro 2019). However, the researcher should consider two sorts of data: the primary and the secondary. According to Kabir (2016) primary data is known as data that has been gathered from first-hand experience. In other words, it is data that is more reliable, authentic and objective and has not yet been published. At the same time, any data from a source that has already been published in any form is referred to as secondary data (Kabir 2016). Data collection is concerned with the actions taken by a researcher to collect relevant data and provide answers to research questions (Abbas 2015).

The principle reason behind data collection is to confirm research hypotheses. Pandey and Mishra (2015) noted that there are a few methods for gathering suitable data, which vary significantly in the determination of expenses, time and different resources at the disposal of the researcher. Primary data can be gathered by way of experiment or survey. In case of a survey, data can be collected by any one of a number of the following means; by perception, through meeting with individuals or groups, through telephonic contact, via mailing surveys and a host of others. The data in this study was collected using survey questionnaires, interview guide and observation checklist. The next section discusses the survey questionnaire as an instrument use for the collection exercise.

4.7.1 Data collection instruments

This section discusses the data collection instruments for the research. Accordingly, the research adopted three different types of data collection instruments, namely survey questionnaire, interview guide and observation checklist. The reason is not farfetched as the research adopted mixed methods types of research, which allow for using multiple data collection instruments. The interview guide was systematically arranged and contained various questions under different themes, such as the resources and services for marketing facilities

available for marketing, marketing strategies and techniques, the factors affecting the smooth running of marketing in the libraries and the measures that can be employed to address the challenges. The interview questions were systematically presented and reflected the principles of a syllogism from the general questions to the more specific. The details of the interview schedule are attached in Appendix 4. The next section discusses the survey questionnaire as an instrument use for the collection of data.

4.7.1.1 The survey questionnaires

This section discusses the survey questionnaire as a data collection instrument for the research. A survey questionnaire is a research tool containing a series of questions and other prompts used to collect data from respondents (Kabir 2016). This indicates that data collection is fundamental in the research process; therefore, an instruments to collect the data has to be selected and a survey questionnaire is one of them. According to Bolarinwa (2015) a survey questionnaire is a set of questions that are used to collect data. In other words, it's a data collection 'tool' for gathering and recording data on a particular subject of interest. Some of the advantages of survey questionnaires include enabling the collecting of large amounts of data from a large number of people in a short period. It can be conducted by the researcher or a group of people with little impact on validity and reliability and results can usually be evaluated quickly and readily by the researcher and so on (Kabir 2016).

There are two main types of survey questionnaires namely the structured and the unstructured. A combination of these is the semi-structured questionnaire, which is applied for the most part in social science research. In a structured survey questionnaire, both the questions and the responses are presented in an organized manner and the study participants must select the correct ones. At the same time, structured questionnaires contain open-ended or closed-ended questions. While in unstructured questionnaires, participants are allowed to respond to predefined questions in their own words (Sadan 2017).

The unstructured questionnaire on the other hand, entails open-ended and opinion kinds of questions where respondents do not select from pre-determined answer options but provide their own answers. Possibly, questions are not in the structure of interrogative sentences and the mediator or the enumerator needs to expound the sense of question. Focus group discussions utilize such a questionnaire (Acharya 2010). A survey questionnaire serves as the primary source of collecting data for abundance research (Zohrabi 2013). Structured

questionnaires contain pre-coded questions with precise skipping patterns to abide by the order of questions.

The researcher used a multiple-choice survey questionnaire to collect data from medical student respondents. It allows respondents to choose from a list of multiple choice answers. The questions were both closed-ended and open-ended questions.

Some of the advantages of multiple choice survey questions, as identified by Kabir (2016) include:

    i.   They are simple to answer;

    ii.   They only require Yes or No answer;

    iii.   They are simple to do preliminary analysis; and

    iv.   They can be asked to various people at different interval and so forth.

The survey questionnaire therefore enables the researcher to obtain quantitative information from many respondents. More so, medical students were purposely, selected as respondents for the study. 365 questionnaires were administered to medical students with the help of research assistants at the four universities and 277 were returned, which represented a 76% response rate. The survey questionnaire administered consisted of twenty-four (24) various questions including background information under seven (7) different themes (A-G), such as the background information of respondents, resources and services for marketing, facilities available for marketing and marketing strategies. Other aspects covered in the questions were factors affecting the effective marketing of information resources and services in the libraries and lastly, the measures that can be employed to address the challenges. Eighteen (18) open questions and three (3) closed-ended questions were also included in the questionnaire (See Appendix 2 for details). The next section gives details about the interviewing process.

4.7.1.2. Interview method

This section discusses interview as data collection instrument used for the research. According to Adhabi and Anozie (2017) an interview can be defined as a method of conversation in which the researcher strives to learn more about a topic from the person being interviewed. This indicates that an interview is a data collection instrument that allows the researcher to get in-depth knowledge of the problem under investigation through face to, face online or any other form of interview. Qualitative research interview provides the researcher with a comprehensive

picture of the research phenomenon from respondents through verbal discussions and textual or graphic data (Sutton and Austin 2015). Some of the advantages of interview, as identified by Adhabi and Anozie (2017) include:

i.   Interview allows the researcher to interject when necessary and ensure that the subject understands the topic under consideration; this indicates that even though the participants have the freedom to express their minds during the interview, their attention will be drawn when they deviate from the topic under investigation; and

ii. Furthermore, interviewers get to put their interpersonal abilities to work by digging deeper into major topics presented by the participant; that is to say, interviewers are free to use their skills to ask further clarification from the participants to get satisfactory responses; and

iii. They give participants the much-needed flexibility of explaining issues based on how well they understand them, meaning that the participant has the freedom to express their mind when interviewed on the topic.

The subsequent section presents the semi-structured interview for the study.

4.7.1.2.1. Semi-structured interview

The researcher conducted semi-structured interviews with participants in order to get in-depth information about the phenomenon under investigation. DeJonckheere and Vaughn (2019) opined that a semi-structured interview allows the researcher to collect open-ended data, dig deeply into personal and sometimes sensitive issues and explore participant thoughts, feelings and opinions about a specific topic. The interview for this study was conducted in November, January and March respectively and each interview lasted between 35 to 45 minutes. The researcher interviewed all the heads of medical libraries. The next section discusses observation as an instrument used for data collection in the study.

4.7.1.3. Observation Checklist

This section discusses observation checklist as data collection instrument used for the research. Observation is the foundation of ordinary social activity; people are keen observers of actions and the physical environment. They observe, assess, draw conclusions and offer comments on encounters and relationships (Ciesielska, Boström, and Öhlander 2018). It involves a

systematic scheduled and documented look at the subject of the study (Murgan 2015). Some of the advantages of observations, as identified by Murgan (2015) include:

i.   It allows information acquired to relate to what is happening at the moment;

ii. It also, ensures the independence of participants who are not subjected to cooperation of any kind;

iii. Observation technique has that characteristic of directness that can complement information acquired through primary techniques such as questionnaires and interview;

iv. It provides immediate information on a person or groups behaviour;

v.   It excludes bias when its conducted directly and precisely; and

vi. Finally, it is also appropriate for participants who are unable to give verbal reports.

Non-participant observation was used for this study. The researcher used it to understand the environment, relationships and interactions uniquely without using commonly used categorizations and evaluations (Ciesielska, et al. 2018). In other words, non-participant observation implies that the observer is looking on and does not play an active role (Urquhart 2015).The observation covers Research Objective Number One of the current study. This observed the policy documents of medical libraries, physical structure and surroundings, the resources available in terms of volumes and currency, facilities available and library user turn-out. See Appendix 5 the observation checklist for details. The next section discusses administration of the research instruments for the study.

4.7.2. The administration of research instruments

The questionnaire was administered to the respondents by the research assistants employed in the medical libraries under study. One research assistant was selected from the staff of each of the medical libraries under investigation. There were 13 medical library staff from BUK, 20 from ABU, 10 from UDUS and 4 from KASU. The research assistants were trained based on the ethical guidelines of the university (UKZN). This is to ensure that they did not impact the credibility of the data. They were employed purposely to assist the researcher in administering the research instruments for strong follow-ups and a prompt response from the medical students. The next section discusses data analysis techniques.

4.8. Data analysis techniques

The purpose of the discussion and interpretation of findings is to make something significant out of the results achieved by clarifying what the researcher has established (Chipeta 2018).The data collected for the present study were analysed using SPSS software for quantitative data and NVivo software for qualitative data. Johnson (2011) asserts that data analysis is a procedure used to change, rebuild and review certain information (data) with the aim of arriving at a specific decision for a given circumstance or problem. It should be done through various strategies according to the necessities and prerequisites of various areas like, business, social science thesis, science and so forth. Some of the benefits of data analysis in the research, as identified by Johnson (2011) include:

i. One of the most important uses of data analysis is that it helps in keeping human bias away from research conclusion with the help of proper statistical treatment;

ii. Data analysis acts like a filter when it comes to acquiring meaningful insights out of huge data-sets;

iii. It is very helpful in breaking a macro problem into micro parts. The next section discusses SPSS software; and

iv. Data analysis helps in structuring the findings from different sources of data collection like survey research.

Furthermore, the purpose of data analysis, as opined by Grinnell and Unrau (2011) is to sort, sift and organize a large volume of data collected in a meaningful way that tackles the reported research problems. Data analysis is often carried out to establish a link between two variables and determine the limit of such a link. The responses to each of the items are presented in tables of frequencies and percentages along with a graphical illustration of the percentages for affirmation. Kumar (2011) postulates that tables are the most well-known technique for presenting analyzed data. At the same time, graphic presentations can make analyzed data simpler to comprehend and successfully communicate what is required to be presented (Kumar 2011). Bavdekar (2015) notes that tables are an arrangement of words, numbers or signs in similar columns used to describe data or relationships. They are useful in presenting a large amount of data that would otherwise be very cumbersome and confusing if explained in textual format. Thus, graphs assist readers to perceive, comprehend and remember the data better.

They are used in describing the results, the relationships and the trends (Bavdekar 2015). For In and Lee (2017) tables are very suitable for giving separate information and can present jointly quantitative and qualitative information. Some of the advantages of using tables include:

i. Tables are useful for summarizing and comparing quantitative information of different variables;

ii. Information with different units can be presented together. For example, blood pressure, heart rate et cetera; and

iii. They can accurately present information that cannot be presented in a graph
    (In and Lee 2017).

In an extended opinion, In and Lee (2017) expound that graphs are excellent for summarizing, and exploring quantitative data because they employ pictures to simplify complex information and show data trends. On the other hand, theories are used to organize findings. Theories/models help the researcher to see what lies behind the data. They offer explanations for why something is the way it is (Cronin, Coughlan and Smith 2015). Similarly, Bryman (2012) highlights that if data is not presented in an organized manner, this will impact on the study's contribution to the field of knowledge and create confusion when it comes to interpretation. The next section discusses the SPSS software.

4.8.1. The Statistical Package for Social Sciences (SPSS)

Quantitative data collected was analyzed with SPSS software that facilitates the easy manipulation of statistical data (Eyaufe 2017).The SPSS Corporation made the SPSS software system package at the beginning of the 1980 and has recently released version twenty-five. In other words, SPSS is a valuable software tool used mainly by social scientists to investigate vital data quickly. Data analysis is a time-consuming and challenging activity, but it can be readily handled and operated with the help of SPSS by employing a variety of technical methods (Gogoi 2020). That is to say, the software can handle complex statistical issues. SPSS has the advantages one of which is the simple to use, handles a vast number of variables in a short amount of time by employing a variety of technical instructions to generate a set of appropriate outputs and so forth (Gogoi 2020). The section below discusses the NVivo software.

4.8.2. The NVivo software

Scholarship has it that computer-based qualitative data analysis software programmes have not gained full acceptance despite their potential (Cambra-Fierro and Wilson 2010). There are hopes, fears and fantasies associated with these technologies (Flick 2002; Curtis and Curtis 2011). This could be due to confusion about the difference between computer-aided data management and potential perception that software merely cuts corners and leads to numerical data analysis (Cambra-Fiero and Wilson 2010).

However, such use of software has been more common in academic settings (Cambra-Fierro and Wilson 2010). Therefore, software suppliers may need to reflect on the added value of their products aimed at both academic and practitioner products (Cambro-Fiero and Wilson 2010). Ngulube (2015) states that computers could be used in such operations as making writing up or transcribing notes, editing, field notes, sorting, coding, memoing, storing, searching, data banking, indexing and retrieving qualitative materials.

On the other hand, Nvivo software was founded in 1995. Tom and Lyn Richards developed the earlier version of the software, which was released in 1981. NVivo 10 was released in 2012 with the first version for Apple operating systems released in 2013 (Paulus, Lester and Dempster 2014). According to Curtis and Curtis (2011) NVivo software entails a coding tree, then uploading transcripts to the software, followed by each piece of text being coded. The aggregation of data by code is very fast and simple. Furthermore, there is the tendency to quantify the data- assume that if a specific code than occurs frequently in the complete data set, it must be more essential than codes occurring less frequently. Some of the unique features of NVivo software packages include:

   i.   media file synchronization;
  ii.   supporting multimedia file coding;
 iii.   transcribing;
  iv.   Google earth integration;
   v.   It will import bibliographic data from citation management software;
  vi.   importing of survey data; and
 vii.   NCapture add-on- a web browser extension specifically designed to capture web and social media data and so on (Paulus et al. 2014).

NVivo software supports various analysis tasks (Paulus et al.2014), as highlighted below;

i. Linking: allow you to represent the process (for instance storey lines, sequence of events, causes and effects in a procedure) and make connections between variable aspects of the data;

ii. Annotating: NVivo can displayed annotation as a footnote within a document with the relevant text highlighted;

iii. Coding: refers to the process of attaching a meaningful label to specific portion of data which can be created at any point of analysis;

iv. Searching: search tools can be used to find particular words or phrases (much like the find tool in Microsoft word) as well as provide word frequency counts;

v. Querying: Querying tools provide powerful ways of systematically exploring relationships between the codes; and

vi. Visualizing: being able to graphically represent the relationship between your data documents, quotations, memos, links, and codes provides an opportunity for greater analytic insight.

For this study, the data from a set of interviews held with (4) respondents were analyzed using NVivo. The interviews were transcribed and coded using NVivo that is specifically designed to attach meaning to a group of phrases (Paulus et al. 2014). Using visualization, the researcher immersed himself in the raw data and looked at how certain keywords were used by respondents through a wordlist. It is a list of all the words that occur in a given group of texts (Silverman 2017) and the frequency of distribution of these words in the transcripts was captured by the researcher. With regards to data management, NVivo as a Qualitative Data Analysis (QDA) software tool enabled the researcher to organize and inspect data and record thoughts on the data. Chapter 5 will elaborate further on this. The next section discusses the categorization of variables.

4.9. The Categorization of variables

This section presents and discusses the categorizations of the variables. The variables were categorized into Univariate, bivariate and multivariate. Univariate means a single example, such as looks at the age of respondents alone. Bivariate means between two variables, for example the relationship between age and knowledge. Multivariate, on the other hand, means more than two, an example being the influence of demographic variables on knowledge, for

example age, gender and qualification. Thus, the examples of these categories of variables of this investigation are:

  i.   Univariate: examples of which are name of institutions, gender of respondents and so on;

  ii. Bivariate: examples of which include gender of students, educational level by age of students and the relationship between age of students and marketing of information resources;

  iii. Multivariate: examples of which include how useful facilities for informing one about the resources and services used for marketing in a library and so on. The section below discusses validity and reliability of research instruments.

4.10. The Validity and reliability of research instruments

Validity and Reliability are strongly related concepts that represent various measuring instrument features. In general, a measuring instrument can be accurate without being valid; nevertheless, if a measuring instrument is valid, it is more likely to be accurate. On the other hand validity measures, how well a measuring instrument performs its function and is concerned with whether the measuring instrument measures the quality that it is supposed to measure (Sürücü, and Maslakçı 2020). On the other hand, reliability, as highlighted by Sürücü and Maslakçı (2020) refers to the consistency and stability of the measuring instrument used over time. In other words, it is the ability to measure instruments to produce similar results when used at different times.

The validity of a questionnaire, as emphasized by Bolarinwa (2015) can be set up utilizing a board of specialists, who investigate theoretical constructs as they appear in the questionnaire. This type of validity exploits how well the possibility of a theoretical construct is represented in an operational measure (questionnaire). The validity of the questionnaire can be proven with the use of another study in a form of experiment or pre-examination and this proves how a well given measurement connect to one or more external criterion. These structures could be the criterion related to validity and concept validity. Similarly, reliability is the extent at which observation, questionnaire, test or any measurement method creates similar outcomes in recurrent applications (Bolarinwa 2015:198).

Qualitative research aims at fostering understanding a phenomenon in a specific context and not generalizing findings to a wider population. To establish reliability and validity in

qualitative research, the five criteria of credibility, trustworthiness, dependability, transferability and conformability are used (Koonin 2014). These criteria are briefly explained below:

i. Credibility is about the truth-value. The strategies to maintain credibility are: continues observation, prolonged engagement, member check and triangulations. In other words, interpretive research can be regarded as credible if its conclusions are believable to readers;

ii. Trustworthiness is a matter of persuasion whereby the researcher is assumed to have made practices apparent and thus, auditable;

iii. Dependability: research can be regarded as reliable or authentic if two researchers independently arrived at the same conclusions evaluating the same phenomenon using the same set of evidence;

iv. Transferability: interpretive research refers to the extent to which the results can be applied to different situations; and

v. Conformability: is about ensuring that the researcher has acted in good faith whilst acknowledging that total objectivity is impossible in social research. It also refers to the extent to which others can independently confirm the findings reported in the research (Korsteins and Moser 2018). Reliability ensures the extent to which the scores measured by the research instruments are reliable. That is why Kumar (2014) emphasized that reliability could be the ability to generate consistent measurements whenever we administer an instrument to similar population under the same circumstances and achieve similar results; we say that instruments are reliable, reliability (extent of accuracy) and unreliability (extent of inaccuracy).

The measuring instrument is the sum of both the 'true score' that is not known and the 'error' in the measuring process. If the margins of errors are small and reporting research results is high, the research will be undoubtedly helpful (Mohajan 2017). In this regard, it is important for a researcher to test his or her survey instruments before using it for data collection (Abbas 2015). This will ensure the consistency of a measure in the results obtained (Davies and Hughes 2014). Research is only supposed to be reliable when a new researcher would come up with similar results if they were to conduct the same research study in a similar method (Davies and Hughes 2014). To safeguard the reliability and validity of the research instruments of the present study, the research instruments were given to professional librarians/academic staff at the Renaud

Cecil Library at the University of KwaZulu-Natal, Pietermaritzburg Campus who checked for any ambiguous questions that could lead to biased answers. The section below discusses the pre-testing of research instruments.

4.10.1. Pre-testing of research instruments

Pretesting, as noted by Hilton (2015) is a method or strategy for testing that questions function as proposed and are understood by those people who are probably going to respond to them. Pretesting, as asserted by Hurst, Arulogun, Owolabi, Akinyemi, Uvere, Warth and Oviagele (2015) includes reproducing the official data collection procedure on a small scale to find real issues about data collection tools, sessions and techniques.

Pre-testing and piloting help to find questions that do not make any sense to respondents or problems with the instruments that may lead to biased responses (Abbas 2015). Babbie (2013) added that pre-testing is more related to instrument testing like questionnaire and interview approaches. Hence, regardless of how careful the researcher designs an instrument for data collection, such as a questionnaire, there is always the possibility of error. The most reliable protection against such mistakes is to fully or partially pre-test the questionnaire.

Some of the advantages of pre-testing, as identified by Hurst et al. (2015) includes:

i. Pretesting offers the opportunity to revise study materials and data collection procedures to ensure that appropriate questions are being asked and that questions do not make respondents uncomfortable and confused because they combine two or more critical issues in a single question;

ii. The value of pretesting can lead to detecting errors in cross-cultural language relevance and word ambiguity, as well as discovering possible flaws in survey measurement variables; and

iii. Pretesting can also provide a warning about how or why a primary research project can fail by indicating where research protocols are not followed or not feasible.

Therefore, the researcher conducted a pre-test of the research instruments to ensure their validity and reliability. To do so along with the interview schedule, they were also pre-tested at the University of Abuja, Nigeria. The head of the medical library there was interviewed accordingly and at the same time 30copies of the questionnaires were administered to the medical students of the University with the help of a research assistant and all were retrieved.

The choice of the University of Abuja was informed by the fact that it does not fall within the zone where the actual study was conducted. In the process of doing the interview; the researcher was able to make observations of the study area as a non-participant observer.

The data collected was coded and subjected to statistical analysis to determine the reliability of the instrument and the internal consistency of the items. The test was conducted with the Statistical Package for the Social Sciences (SPSS IBM version 23). The reliability of the instrument was established in the computation of Cronbach Alpha, the Spearman-Brown coefficient and the Guttman Split-Half Coefficients. The output for the two tests is attached as Appendix14. The observed reliability index for Cronbach Alpha, were 0.872 for the Part1 and 0.913 for Part 2. The Spearman-Brown coefficient was 0.718 and the Guttman Split-Half coefficient 0.698. The obtained reliability coefficients indicated that the instruments could be considered reliable for the study.

4.11. Ethical considerations

Ethics refers to a division of philosophy which manages the dynamics in making decisions in relation to what is good and bad. David and Resnik (2015) defined ethics as an approach, technique or opinion for indicating proper behaviour and for analyzing complex issues. For example, in taking into account an issue, such as global warming, one may need to consider economic, ecological, political or ethical viewpoints on the topic. In other words, research ethics covers the requirements of everyday work, the protection of the dignity of topics and the publication of information in research. The primary ethical issues in steering research include:

   i.   Respect for anonymity and confidentiality;
   ii. Respect for privacy;
   iii. Informed consent, that is permission granted in full knowledge of the respondents;
   iv. Since research regularly includes participation and coordination among a wide range of individuals in various disciplines and institutions, ethical guidelines advance the qualities that are basic to collaborative work, for example, trust, accountability, mutual respect, and fairness;
   v.   In the first place, norms advance the points of research, for example, knowledge, truth, and avoidance of blunder. For instance, the prohibition against fabricating, falsifying, or distorting research data promote the truth and limit error;

vi.   Considerable norms of research promote an assortment of other imperative moral and social values, for example, social responsibility, human rights, animal welfare, compliance with the law, and general well-being and security; and

vii.   Ethical norms in research likewise help to build willing help for research. Individuals will probably support a research project if they have confidence in the quality and integrity of research (Fouka and Mantzorou 2011 and Resnik 2015).

The ethical requirements established by the University of KwaZulu-Natal (UKZN) were strictly adhered to. Researchers are supposed to uphold the maximum standards of uprightness and integrity. Any kind of academic deceit, comprising the falsification of data, plagiarism and fabrication, among other things are serious offenses (UKZN 2007:4). Letters of introduction were handed over to the medical libraries considered for the study. An informed consent form was delivered to each of the respondents and subsequently to all the participants and their permission was sought for interviews and questionnaire completion. It was explained clearly to them that this research was strictly for academic purposes and that they would remain anonymous and could withdraw at any time. The next section presents the evaluation of the research methodology.

4.12. Evaluation of research methodology

Evaluation, as noted by Adom, Mensah and Dake (2020) referred to as the determination of the quality of an object, subject or phenomenon. It is the method used to determine the merit of a process or the product of the process. In other words, it basically involves receiving feedback on how a person or organization accomplishes its goals and objectives. From a research point of view, Zulu (2018) correctly notes that it is advisable to critique one's methodology and show if there are any shortcomings in it per se and how these have been catered for. This always demonstrates the researcher's depth of understanding of methodological issues. In addition, Bryman (2012) averred that all research methods have their strengths and weaknesses, so the selected methods could be chosen on the premise of their strengths and their ability to address research questions adequately. Kumar (2014) reiterates that the methods used by any researcher are strongly linked to the researcher's understanding of the method and its limitations.

In choosing and adopting the methodology for this study in light of the preceding statements, the researcher observed the following issues, as indicated by Garaba (2010:18):

i. Evaluation design to be flexible and responsive enough to promote change or redirection to prevent hindering control procedures-thereby facilitating ingenuity;

ii. The integrity of the data in the eyes of the audience receiving and using the results;

iii. Easy understanding of the data collected in such a way that the researcher can gain confidence;

iv. The resources available to the researcher (funding, time, equipment and assistance); and

v. The credibility of the outcomes of the selected methods.

Consequently, the researcher experienced several challenges in the methodology and process of data collection. Firstly, the administration of the questionnaire began at the end of the academic session. At that point on time, a significant number of students had finished their semester examination and left for vacation. The researcher, therefore, had no choice but to wait till the end of the holiday. This explains why the data collection took more than four months to complete (November 2017 to March2018). The administration of the questionnaire was also halted as a result of a prolonged strike action undertaken by the non-academic union of the universities. Regrettably, all the research assistants employed for the research were members of that union and forced to comply. Hence, the interruption of the administration of the questionnaire. In fact, due to the strike action that spanned for about 3 months, the researcher was unable to retrieve some of the questionnaires from one of the institutions, thus forcing new copies to be reproduced for re-administration. The researcher had to seek the support of the head of the medical library to retrieve some of the questionnaires already administered because the research assistant was nowhere to be found due to the ongoing strike. As earlier noted, a total of 365 questionnaires was administered and 277 (76%) were returned. Furthermore, out of the 365 questionnaires administered to the respondents in the four universities, 88(24%) were not returned; see Table 5.4.1 for details.

Interviews, on the other hand, recorded 100% responses, as all the heads of the medical libraries were successfully interviewed. See section 4.7.1.2.1 for details of how the interviews were conducted. Some of the challenges experienced during the interview were that it took longer to complete them because participants were preoccupied with their own work. In fact, in some of the medical libraries, the interview had to be rescheduled twice due to the industrial strike at the library. Secondly, after the industrial action, they had an accreditation exercise, which made

the process of data collection difficult. They were too busy. Therefore, the heads of the medical libraries of these two libraries were not interviewed until the accreditation was over.

Based on the experience throughout this study, the researcher would choose to use interviews and observations alone if the research is to be carried out again. That is because there are difficulties associated with the use of a questionnaire being inaccurate due to the time and energy spent in filling it out. There is no room for clarity for both the researcher and respondents. Interview and observations, are simple, easy convenient to carry out and equally more reliable. They helped the researcher and the participants to clarify ambiguous questions. Issues can also be noticed when they happen. The use of different data instruments means that the research process is reliable and valid.

In addition, the data collection instruments for the research were pretested to ensure reliability and validity. The head of the Medical Library at University of Abuja was interviewed and the medical students were given 30 copies of the questionnaire and all were retrieved. The results of the pretesting collated showed that the instruments could be regarded authentic and logically consistent for the study (see Appendix 14 for details). Finally, the study targeted only the North Western geopolitical zone of Nigeria and thus the findings cannot be applied to all the zones in the country. In summary, despite the challenges faced in the present research, its findings are rich because the challenges have not influenced them. The section below discusses the summary of the Chapter.

4.13. Summary

The chapter explained the concepts research methods and methodology, which are aimed at guiding the entire research process of any given research. It also explained the research paradigm, research design, the population of the study, sampling technique, sampling for the study, research instruments, data analysis techniques, ethical considerations, validity and reliability and pre-testing research instruments and the evaluation of research methodology.

Secondly, the chapter discussed the concept of research methodology, as a process and strategy through which the entire research was scientifically conducted to address the research phenomena under study. The research paradigm was presented and explained in the chapter. It was concluded that a research paradigm enables the researcher to deepen an understanding of the worldview through the research process. As such, several types of research paradigms were

discussed, namely interpretivism, positivism, post-positivism and, finally, pragmatism, which was the paradigm adopted and used to guide the present study. It is the most appropriate and adequately addresses both the qualitative and quantitative elements of the research. The chapter also discussed the research designed. It was discerned that it is like an instruction manual, which guides the conduct of research and gives directions to the research from the initial steps to the methods to use and the presentations of the research findings, respectively. Similarly, under the research design section of the chapter were discussed various types of research designs, namely qualitative and quantitative methods and the mixed methods. Mixed method was used in guiding the current study. The approach was appropriate because of its multi-dimensional nature, the respondents and the research question being addressed, which involve a combination of quantitative and qualitative elements. Similarly, an explanatory sequential mixed method was used to analyse the data for the study.

The population of the study, sampling and sampling procedures were discussed. A total sample of 365students was used for the research drawn from four public universities, as well as four heads of the medical libraries at the same universities. The chapter discussed the methods of data collection for the research. The researcher used a triangulation, namely a survey for medical students with the help of assistants, semi-structured interviews with the heads of medical libraries conducted by the researcher and non-participant observation.

The chapter also discussed the data analysis techniques, namely NVivo and SPSS software. The study used NVivo software and analysed qualitative data while the quantitative data was analysed using SPSS software accordingly. The validity and reliability of the research instruments were deliberated. The research instruments were validated by the academic librarians of the Renaud Cecil Library, University of KwaZulu-Natal Pietermaritzburg Campus. The pretesting of the data collection instruments was undertaken at the University of Abuja, Nigeria with both the head of the medical library (interview schedule) and medical students (questionnaire).The chapter discussed the ethical issues about conducting research. The ethical considerations as enshrined in the code conduct of the University of KwaZulu-Natal ethical requirements were adhered to for the process of doing the present study.

Finally, the chapter discussed the evaluation of research methodology. The next chapter analyses and presents data obtained on marketing to enhance the use of information resources and quality of services in Medical Libraries of Public Universities in North-West Nigeria.

CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.1. Introduction

The chapter presents the analysis of the data drawn from the survey questionnaires, interviews and observations collected from students and the heads of medical libraries in the North-West Nigeria on the marketing of information resources and services in the medical libraries of public universities. The study findings are presented based on the broader questions first and in line with the more specific questions posed as presented in section 1.4 of Chapter One accordingly. Bhattacherjee (2012) asserts that data is analyzed and interpreted in order to draw conclusions on study questions of concern. Johnson (2011) noted that data analysis is a procedure used to change, rebuild and revise certain information (data) in order to reach a specific decision for a given circumstance or problem. Consequently, data analysis ought to be done through various strategies according to the necessities and prerequisites of various domains like science, business, social science and so forth. The main objective for this study was to explore marketing of information resources and services in the medical libraries of the public universities.

5.2. Response rate

Response rate is the proportion of people recruited into a survey sample and qualified to partake in the research (Johnson and Wislar2012). In the view of Kutu (2020) it is usually computed by dividing the total number of respondents by the number of questionnaires distributed. According to Johnson and Wislar (2012) the level of an acceptable response rate in a survey is set at 60%. The reason is not far fetch as 60% is a reasonable percentage and can be use to generalize the result. Furthermore, as Babbie (2011) points out, the response rate of 70% of a questionnaire is a reasonable average for research data to be reflective of the total population. According to Singleton and Straits (2005) it is necessary to pay attention to response rates. They further added that a response of 85% is relatively adequate for data analysis in a qualitative survey and below 70% there will be a high possibility of bias. In a nut shell for a research response to be reasonable there must be a certain percentage of response of which the research will be rated as successful and at least not less than 60% unless if there is fundamental problem, because 60% is a reasonable percentage that the result will be generalize as a representation of the population.

Therefore, 365 survey questionnaires were distributed among the four universities in this study. A total of 277 copies of the questionnaires were completed and returned for quantitative data analysis, resulting in a response rate of 76%.Whereas a 100% response rate was attained for qualitative data analysis. Table 5:1 below shows the response rate of medical students at the universities surveyed. The data was analysed in the present study based on the research objectives and research questions. The section below discussed the presentation of the qualitative and quantitative data of the research.

5.3. Presentation of qualitative and quantitative data

This section explains how the data sets in this study were presented. Accordingly, the qualitative data from the interviews and observations were used to augment the quantitative data collected from the medical students. The qualitative and quantitative data collected were integrated, particularly those on the same theme, for consistency and to minimize unnecessary duplication. This is point of integration in explanatory sequential mixed methods. The section below discusses response rate of the instruments. The research addressed four Research Questions as presented in Chapter One (section 1.4).

5.4. Student response rate from the (365) questionnaires administered and the responses from the (4) heads of medical libraries who were participants.

This section analyses the response rates for the study from each of the selected medical libraries of the public Universities in the North-Western geopolitical zone and presents the data in Table 5.4.The percentages are rounded off to the nearest whole number. The Tables show the number of questionnaires administered, completed and returned from each of the four medical libraries at the public universities. A total of 365 were administered 277 (76%) of the total number were filled in and returned.

Table 5.4: Distribution of the questionnaires according to the individual medical libraries of the public universities in the North-West Nigeria (n= 277)

Name of institutions	Total administered	Total returned	Perc. %	Total not returned	Perc. %
Ahmadu Bello University Zaria	92	79	86	13	14
Bayero University Kano	171	126	74	45	26
Kaduna State University Kaduna	14	14	100	0	0
Usmanu Danfodio University Sokoto	88	58	66	30	34
Total	**365**	**277**	**76**	**88**	**24**

Table 5.4 shows the number of questionnaires returned and those that were not returned. Out of 6644 medical students, 365 were sampled and each university was represented proportionately. As such, 365 questionnaires administered to the four Universities understudy, 171 being the highest number administered to medical students of Bayero University Kano of which, 126 (74%) were successfully completed and returned. Fourteen were administered to Kaduna State University, which is the lowest and all were completed and returned. Thus, the overall response rate of 76%, explicate that the study results indubitably provided valid information on marketing of information resources and services in the medical libraries of the Universities.

Furthermore, out of the 365 questionnaires administered to the respondents in the four universities, 88 (24%) were not returned. In addition, of all the Universities involved in the research, only Kaduna State University recorded a 100% return rate. Non-responses reduced the sample size but did not in any way affect the findings of this study. Non-responses affect the validity of a study and should therefore be reported accordingly. Bryman (2012) advises that one way to address non-response rates is to send out reminders to participants. In this case, the researcher did not remind the respondents directly. However, he reminded them through research assistants to ensure that the questionnaires distributed were satisfactorily administered instead. The next section discusses the descriptive analysis of their socio-demographic characteristics.

5.5. Descriptive analysis of the socio-demographic characteristics of respondents

The demographic characteristics of the medical students and heads of medical libraries respondents involved in the study are necessary to understand the objectives of the present research. This is with a view to get appropriate responses from them, as each had a different way and ability he/she responded to questions. More so, the results might serve as the basis of comparison and evaluation by other researchers. In addition, such information was purposely collected to assist in understanding the nature of the respondents involved in the study that might help to interpret any trends in their responses. The study sought of their gender, level of study, age range, qualification and work experience all of which are deemed pertinent if not mandatory.

5.5.1. Gender

In terms of the gender statistics of the respondents, 195 (70%) were male and 82 (30%) female. This clearly indicates that among the medical students in the four selected universities, male students patronized library services much more than their female counterparts. This was also corroborated by the researcher's observation during data collection that showed male students impressively patronizing the library more than female. Three of the heads of medical libraries interviewed, were male and one (1) was female. This is reflective of the gender imbalance in the profession in the North-West Nigeria, which has more male librarians than females.

5.5.2. LEVEL OF STUDY

Students were asked to indicate their level of study.
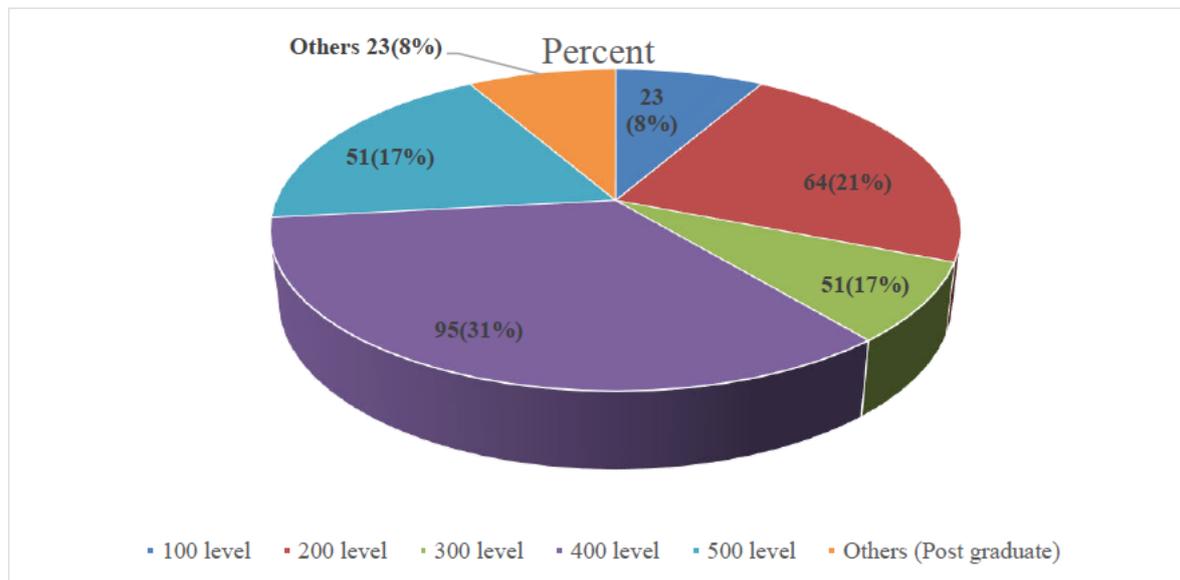
Figure 5. 5.2: percentage distribution of respondents by level of study (n=277)

Figure 5.5.2 above indicates that students from 100 level were 23 (8%), 200 level were 64 (21%), 300 level were 51 (17%), 400 level 95 (31%), 500 level were 51 (17%) and postgraduate who were 23 (8%).

As indicated in Figure 5.5.2 students in their fourth year (400 Level) of study in the Universities had the highest number of respondents (95 or 31%). Postgraduate students in particular, who did not specify their level of study, had the lowest number (23 or 8%) each.

The variation in number is associated with the presence of the students in the libraries, where the questionnaire was administered. This clearly explains the higher number of students in 400 Level who were deeply engaged in their final year preparation of their research projects and were, therefore, in need of more library resources and services in the medical libraries of the universities. To substantiate this further, the researcher observed that the administration process of the questionnaire coincided with the end of the academic session and some of the students were writing their exams. The responses were later found to be mainly from the Four Hundred (400) Level students, who were immersed in reading and searching for information. For this reason, they were patronizing the library regularly. Table 5.5.3 below presents the data on the educational level of students by gender.

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5.5. 3 Educational level by gender of students (n=277)

Table 5.5.3: below presents and analyses data on the educational level of respondents by gender.

Table 5.5.3: Educational level by gender of students (n=277)

Current level of study	Male		Female		Total	
	Freq	%	Freq	%	Freq	%
100 level	15	5	8	3	23	8
200 level	48	17	15	5	63	23
300 level	8	3	14	5	22	8
400 level	64	23	31	11	95	34
500 level	42	15	9	3	51	18
Others (Post graduate)	18	7	5	2	23	8
Total	195	70	82	30	277	100

Table 5:5.3 indicates that majority of the respondents (64 or 3%) both males and females involved in the study were in 400 Level and 31 (11%), respectively. However, female students at the postgraduate level were the least group (5 or 2%). Table 5.5.4 below presents and analyses data on the educational level of students by age.

5. 5.4 Educational level of students by age (n= 277)

Table 5.5.4: Educational level of students by age (n= 277)

Current level of study	15 - 20yrs		21 - 26yrs		27 - 32yrs		33 - 38yrs		>38yrs		Total	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
100 level	12	4	0	0.0	1	0.4	10	4	0	0.0	23	8
200 level	31	11	24	9	8	3	0	0.0	0	0.0	63	23
300 level	5	2	10	4	3	1	3	1	1	0.4	22	8
400 level	9	3	66	24	12	4	7	3	1	0.4	95	34
500 level	0	0.0	28	10	12	4	8	3	3	1	51	18
Others (Post - graduate)	1	0.4	4	1	6	2	11	4	1	0.4	23	8
Total	58	21	132	48	42	15	39	14	6	2	277	100

The students within the age range of 21 and 26 years are 132(48%) of the total number involved in the study. The vast majority (66 or 24%) are in 400 Level. Those within the age range of 38 years and above are the least (6 or 2%) and majority of them are in 500 Level. The section below discusses the educational qualifications and working experiences of heads of libraries.

5.5.5. The Educational qualifications and working experience of heads of libraries

The heads of medical libraries interviewed were asked to provide information about their educational qualifications. All of them interviewed have Master's degrees in library and information science from various universities in Nigeria and all of them had their first degrees in library and information science as well, except one who had first degree in Microbiology.

The results of the interviews about their working experiences indicate that they have different levels of working experience right from their early career up to their current position as the heads of medical libraries. They demonstrated in the course of the interviews that one of them had been in the present positions for the past eight years. Similarly, another had been in the position for five-years while the third had been in the position for less than a year (since 2019). Finally, the last head of the medical library had been in the post for just two months.

However, regarding their overall experience in the profession, it was indicated by one of them that despite having the least experience as a head of the medical library he had more years of experience in the profession than all the other heads interviewed. This is because as Participant A said that:

> *I have been in the library as a librarian in the cataloguing*
> *and classification division for the last thirty (30) years to be*
> *exact, since December 1986 and I have worked with so many*
> *people and in various aspects of librarianship.*

5.5.6 Library use

This section seeks to determine the frequency of the use of the library by the respondents. The researcher wanted to know how frequently the medical students used the library because frequent usage is an indication that the library consistently meets the information needs of students and draws more students to the library more regularly. Moreover, it also shows that there is some level of marketing of information resources and services to the library users by the libraries, which also accounts for the students' level of patronage.

5.5.6.1 Frequency of use

Table 5.5.6.1: below shows the classification of the students by the frequency of their usage of the medical libraries in the Universities

Table 5.5.6.1: Frequencies and percentages of library usage by the medical students (n=277)

How frequently do you use the library	Frequency	Percent
Daily	132	48
Twice a week	46	17
Weekly	13	5
Fortnightly	7	3
Occasionally	67	24
Others	12	4
Total	**277**	**100**

Table 5.5.6.1 shows that 132 (48%) medical students who used the medical libraries of the universities on a daily basis constituted the highest number of all, while those who visited the medical libraries fortnightly were less than the first category with 7(3%) responses. This indicates that almost half of the medical students used the libraries on a daily basis.

A visit to the libraries indicated that only one of the medical libraries involved in the study has a prototype (purposely built) library structure and the rest (three) are converted structures. The implication is that there might be varying degrees of inconvenience, noise and other unwarranted disturbances that might distract users' attention in these locations. Ventilation is another factor associated with converted structures. Cross ventilation was compromised and lighting not appropriate. Once there was a power outage, the library would fall into darkness and could no longer be used for studies, learning and research by students. It is crystal-clear that in Nigeria there is the absence of a stable power supply. This has negative implications for the preservation and conservation of library resources, because when the resources are not stored in an appropriate atmosphere, particularly in tropical countries such as Nigeria, then the conservation of the resources is at risk.

The researcher also observed that in all the four medical libraries there was an appreciable level of patronage among students. Therefore, it can be deduced that all the medical libraries have relatively good resources available and conducive for reading, research and learning. Generous seating capacity was in place. The libraries could accommodate five hundred (500-550), a little above two hundred (206-250), one hundred and ten (110-200), and forty (40-50) students, respectively. The next section discusses the purpose of using the library.

5.5.7. Purpose for which library is used

In this section, the researcher sought to establish the purpose for using the library. Why students patronize the libraries would enable the researcher to analyse patronage and suggest what has to be done to improve the usage by providing more resources and services that will make the library a conducive, informative or 'infotainment' centre, as it was called by some student respondents. This is for the benefit of students, staff and researchers. At the same time, it will serve as a basis for the responding libraries to make further improvements, regarding resources and services. The responses to the relevant questions were drawn from the students of the, four medical libraries of public universities in the North-West Nigeria. Table 5.5.7 shows the purposes for which the students utilized the libraries.

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Table 5.5.7: Classification of the students by the purpose for using the medical libraries (n=277)

S/N	For what purpose are you using the library?	Yes		No	
		Freq.	**%**	**Freq.**	**%**
1	To read in my study area	239	86	38	14
2	For current information	97	35	180	65
3	To borrow materials	79	29	198	72
4	For printing and photocopying relevant documents	29	11	248	90
5	For reading newspapers	57	21	220	79
6	For research needs	117	42	160	58
7	Others	37	13	240	87

Table 5.5.7: Illustrates that for most (239 or 86%) of the students, their purpose for using the libraries was to read on their area of specialization. Some 97(35%) students used the libraries for current information while 79(29%) used them for borrowing materials and information resources. The least in the hierarchy is 29(11%) who said that they used them for utilizing services like printing and photocopying relevant documents for their study. It was observed that in all the four medical libraries studied, there were available and in varying degrees relevant books in most of the subjects studied, such as medicine and other health-related programmes run by the universities. Some of the books were not current publications. This might be due to the fact that the libraries were suffering from inadequate funds, as claimed by all the heads of the medical libraries when questioned about the issues pertaining to the availability of resources. The details will be discussed in the later part of this chapter. However, it was observed that some of the printed journals exhibited and displayed in most of the libraries were relatively current editions published in 2014, 2015 and 2016, for example. The next section discusses resources, services and facilities for marketing in medical libraries.

5.6. What resources and facilities are available to facilitate marketing resources and services in medical libraries in the North-West Nigeria?

This was the first research question of the study based on the 4Ps, 7Ps, 4Cs marketing theory and the SERVQUAL model. The research question on this theme sought to assess what resources and facilities are available to facilitate marketing quality resources and services in medical libraries in the North-Western geopolitical zone of Nigeria. The question was asked of

students and the heads of medical libraries. The 4Ps, 7Ps, 4Cs marketing theory and SERVQUAL model informed the research questions. A series of questions were put to the respondents in order to answer this research question.

5.6.1. What types of information resources are available in your library?

This question was purposely asked to understand the information resources available in the libraries under study. The availability of information resources (products) is necessary in the marketing process based on the 7ps marketing theory. By identifying available resources, one can determine their strengths in meeting user needs and the effectiveness of the library's marketing activities. Since marketing is all about promoting the availability of library resources or products, the library must make its products available and accessible to users. The answers to the question would also help to determine whether the resources provided are based on the information needs of users.

Along with students, the heads of medical libraries were also asked similar questions regarding the resources available, the process of acquisition. The acquisition policy and associated challenges. The results and answers to Question5.6 in Table 5.6.6 were drawn from the medical students of the four medical libraries included in the study. The responses from the four heads of medical libraries were garnered to support or refute the results collected from the medical students.

The assessment of the information resources and services in the medical libraries was undertaken in terms of investigating the types, level of availability, awareness, accessibility/utilization and satisfaction along with the available facilities used for marketing the information resources and services. Students were presented with a list of information source types, so that they could choose as many familiar as possible. An 'other' option was also provided. The approximated percentages are presented in Table 5.6.1 below.

Table 5.6.1: Opinion of the students on availability of information resources in the medical libraries (n=277)

SN	Types of resources do you know of that are available in your library	Yes		No	
		Freq.	%	Freq.	%
1	Books	252	91	25	9
2	Journals	194	70	83	30
3	Newspapers and magazines	180	65	97	35
4	Reference resources (example encyclopaedias and dictionaries)	168	61	109	39
5	Internet	106	38	171	62
6	Audio visual resources	39	14	238	86
7	Posters	71	26	206	74
8	Databases	62	22	215	78
9	Theses and dissertations	71	26	206	74
10	Others	17	6	260	94

Table 5.6.1 shows that books are the most available information resources in the libraries, as indicated by most of the students: 252(91%).This was followed by journals (194 or 70%) students, newspapers and magazines (180 or 65%) and reference resources (example, encyclopaedias and dictionaries) by 168(61%). Other information resources such as audio-visual posters, databases, theses and dissertations were unknown to most students, as less than 40% agreed on their availability in the libraries. Their responses were consistent with the views of all the heads of the medical libraries interviewed from the four universities involved in the study. Their responses indicated that libraries had different forms of information resources, namely books, journals and some other printed resources. In the words of Participant A of the heads of the medical libraries interviewed, in response to the question on the available information resources, he is of the view that "the major ones are the books and the journals and journal articles, a publication by the staff from all faculties".

The finding above was supported by the observation by the researcher in the current study, who found that the medical libraries had books that covered most of the subject areas taught by the universities. Even though the books were inadequate, given the number of students enrolled in the various programmes, the researcher established that the libraries had quantified their materials as at first quarter of 2018, as presented in Table 5.6.1.1 below.

Table: 5. 6.1.1. Available books, theses and journal publications in medical libraries.

S/N	Available books in the libraries:
i.	… (Library: A) 8,057, 4,307, 3016 volumes of books, theses and journal publications respectively;
ii.	… (Library B) 43, 723 volumes of books, journals and related documents;
iii.	… (Library C) 18076 volumes of books, journals and other related documents and;
iv.	… (Library D) 647, volumes of books and 77 journal titles.

The perception during the interview from these four respondents was that their libraries lacked sufficient information resources. This lack of adequate information resources was associated with a peculiar Nigerian situation, which Participant D noted that "Given the situation in Nigeria especially with the economic recession, you cannot always have sufficient resources to market. There are a lot of things that you want to market, but you don't have them". [This implies that Nigeria's economic situation impacted negatively on the acquisition of adequate information resources in medical libraries].

The problem is not just the issue of marketing of quality information resources and services of the libraries but their inadequacy. Inadequacy, as observed by the researcher, was accompanied by insufficient financing. To a certain degree, there was a lack of involvement by some heads of medical libraries in the library acquisition process as well. The researcher's efforts to obtain the documents that contained an acquisition policy from some of the libraries were unsuccessful. What is more, some of the available library guides do not discuss the acquisition policy of either the main library or branch libraries in detail. This explains why, when responding as to whether the medical library had an acquisition policy, one of the participants pointed out that there was an acquisition policy in the library, but she was not part of the process of what resources got purchased. Requests for the library resources are usually sent to the university Librarian's office. Participant B stated that,

> *There is an acquisition policy but unfortunately being the college librarian I am not responsible for that acquisition policy. I don't know anything about the acquisition. My duty is to send the list of information resources from the departments … to the university librarian. The librarian will then forward it to technical department who are responsible for the entire acquisition policy and process,*

purchasing and processing of books. Finally they forward the processed books to the college library. [This shows that library resources are processed and acquired from the central acquisition department. Thus, medical libraries just forward their requests to the acquisitions department].*

Two of the participants interviewed concurred with the view that the acquisition policy requirement can only be complied with when there were funds available in the library. Participant A when asked about the acquisition policy noted that:

You see mostly these things are acquired subject to the availability of financial resources. Even so, if you say as a policy you should buy ten (10) copies of a particular book or you should always have three (3) copies of the particular journal publications. Sometimes you will be financially constraint that you cannot do that. But as much as possible whatever we acquire will be in multiple copies minimum of two (2)… [This confirms that implementation of the acquisition policy is determined by the funds available. Once there are enough funds, the medical library would acquire adequate resources as per the provision of the policy].

This was corroborated by the researcher's observations. A comprehensive library guide with the acquisition policy of the library was found in one of the medical libraries. The policy stipulates that a minimum of two copies should be purchased in terms of books and journals, while one copy of the audio-visual and e-resources should be purchased. It is worthy of note that all libraries have an acquisition policy, but not all heads of medical libraries aware of it. This is because most policies operate from the central library, as the findings of this research indicate.

5.6.2. Are the following resources accessible for use in your library?

In this section, the researcher sought to determine whether the available information resources were accessible to users. The question was aimed at understanding how accessible the resources available in the four medical libraries in North-West Nigeria are to the student users.

Merely acquiring resources is not enough; these resources need to be made accessible to them. Table 5.6.2 below presents these findings.

Table 5.6. 2: Accessibility of available information resources in the libraries (n=277)

S/n	Are the following resources available for use in your library	Available		Not available		Not sure	
		Freq.	%	Freq.	%	Freq.	%
1	Books	260	94	8	3	9	3
2	Journals	231	83	18	7	28	10
3	Newspapers and magazines	221	80	22	8	34	12
4	Reference resources (e.g., encyclopaedias and dictionaries)	208	75	21	8	48	17
5	Audio visual resources	58	21	89	32	130	47
6	Posters	78	28	82	30	117	42
7	Internet	109	39	103	37	65	24
8	Databases	85	31	90	33	102	37
9	Theses and dissertations	73	26	114	41	90	33
10	Others	16	6	225	81	36	13

Table 5.6.2 shows that available books, journals, newspapers and magazines along with reference resources (example, encyclopaedias and dictionaries) were accessible and utilized by the students in the libraries. The use of these information resources was however where the consensus about accessibility stops. For other resources, such as audio-visual materials, posters, Internet, databases, theses and dissertations along with other miscellaneous resources, there was no agreement on the level of their availability and accessibility to the students.

5.6.3. How current are the library resources?

This question sought to examine the currency of information resources. In this regard, the researcher wanted to find out how current the available information resources in the four medical libraries of public universities in the North-West Nigeria were. This is because there is a relationship between the currency of resources, the satisfaction especially for medical students and medical professionals and the marketability of such information resources to the users, as well as the reputation of the library.

On how current the available information resources provided in the medical libraries were, 147(53%) of the students were of the view that such information resources were current, while 64(23%) opined that they were relatively old on the grounds that they were less than 5years old at the time of this survey. 66 (24%) were of the opinion that the available information resources were outdated. This was corroborated by one of the heads of the medical libraries when he was asked about the resources available in the libraries. The respondent pointed out that some of the library's challenges were inevitable because the availability of funding determined the acquisition of current resources and funds were presently insufficient. This explains why requests from users are sometimes turned down. The Participant C noted that:

> *You see, this challenge is something one cannot avert. I mean procuring current books is subject to the availability of funds. Sometimes students or users will come with a material, a book that they will want the university librarian or the library to procure for them but due to the financial inadequacy we might not be able to procure some of these books.* [This indicates that the challenges are tied to inadequate resources in medical libraries due to financial constraints].

A visit to the medical libraries enabled the researcher to observe that some of their books were outdated. This is a result of inadequate financial resources in the libraries, resulting in budgetary cuts that have been experienced by the universities in general and the libraries in particular.

5.6.4. Which of the following services are available in your library that you are aware of?

This question is the second part of the research question of the study and the section provides the responses to the questions about the availability, awareness of and use of library services in the medical libraries. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. The provision of services is one of the differences between library bookshops and other book sellers. A library is in complete without the efficient provision of core services that will attract and aid the use of the resources available in libraries.

Table 5.6.4 below shows the perceived availability of the information services in the medical libraries as expressed by the students.

Table 5.6.4: Available information services in the medical libraries *(n=277)*

SN	Which of the following services are available in your library that you are aware of?	Relevant		Not relevant	
		Freq.	%	Freq.	%
1	Current information	199	72	78	28
2	Exhibitions and displays of new resources (books, journals, and reference sources)	154	56	123	44
3	Reference and information services / help	152	55	125	45
4	Library orientation	144	52	133	48
5	User education	142	51	135	49
6	Reservations	132	48	145	52
7	Indexing and abstracting journals	119	43	158	57
8	Photocopying and printing	81	29	196	71
9	Inter library loan	54	20	223	81
10	Others (unspecified)	16	6	261	94

Table 5.6.4 shows that the availability of current information services is the most common service acknowledged by 199(72%) students. Services which students were not fully aware of, such as exhibitions and display of new resources (books, journals, and reference sources) was indicated by 154(56%) students; reference and information services by 152(55%), library orientation by 144(52%), user education by 142(51%) and reservations by 132(48%).Inter library loan was the least acknowledged available service in the medical, as indicated by 54(20%) of the respondents.

This was supported by one of the heads of medical libraries interviewed that the library used newsletters, notice boards and flyers respectively to update, share and display new resources. It also liaised with the heads of department and deans to update and display resources to satisfy users' needs. In the words of the Participant A:

> *There is a new development, we used a newsletter that we called the Library Update and there was a shelf that we used for display of new arrivals of information resources. In addition, we used notice boards to*

post flyers for notification in case there is any information that we would want to share to our users…[This confirms that medical libraries provide a variety of services to the users such as a newsletter, a shelf for exhibition and display and notice boards that convey information to users].

Similarly, the presence of those shelves dedicated to displaying the library's new arrivals was observed to be positioned strategically in all the libraries visited by the researcher during the data collection process.

5.6.5 In all the information services available in your library, which one do you use?

The research question on this theme sought to assess the perception of students on the available services used and which facilitated marketing of information resources and services to library users in medical libraries. The 4Ps, 7ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Table 5.6.10belowpresent awareness and use of available services in the medical libraries.

Table 5.6.5: Awareness and use of the information services available in the libraries (n=277)

S/n	Information Services Available and used in the Libraries	Aware of and use		Aware but don't use		Not aware	
		Freq.	%	Freq.	%	Freq.	%
1	Current information	167	60	33	12	77	28
2	User education	97	35	46	17	134	48
3	Reservations	63	23	55	20	159	57
4	Inter library loan	45	16	35	13	197	71
5	Reference and information services/help	101	37	41	15	135	49
6	Indexing and abstracting journals	63	23	64	23	150	54
7	Exhibitions and displays of new resources (books, journals, and reference sources)	99	36	52	19	126	46
8	Library orientation	100	36	30	11	147	53
9	Photocopying and printing	74	27	43	16	160	58
10	Others	16	6	3	1	258	93

From the data presented in Table 5.6.5 current information services along with exhibitions and display of new resources (books, journals and reference sources) are the services that most students appeared to be aware of and used in the medical libraries. Those who were aware of their availability but did not use them were 33(12%) and 77(28%) respondents were not aware of their availability in the libraries at all. Thus, a majority were aware of and used current information services in the libraries. However, interlibrary loan is the service that students were least aware of and used, as indicated by 45(16%) of the respondents. The detail will be seen in the Table 5.6.5 above.

It is essential to note that users need to become aware of available resources and services as this would help them a great deal in maximizing their use and benefit from them in their studies. Interlibrary loan provides an avenue for the library to complement the information resources that are not internally available but can be found in other libraries. This is because no library

can have or acquire all published resources globally. However, interlibrary loans will enable them to provide more service opportunities to satisfy their users' needs. These services are essential and the library needs to inform and create awareness about the availability of these critical services. One of the participants pointed out that the library was trying to market all the information resources and services available to meet the needs of its users, although the number of the library's users had grown large and spread across different disciplines in the College of Health Sciences run by the university. With this development then, the library might not be able to meet those needs. The participant B is of the view that:

> *The library tries its best to market its services to its users. Even though the community that the library serves is large because there are five faculties under the College of Health Science which are the faculty of Allied Health Science, Clinical Science, Basic Clinical Science, Pharmacy and Dentistry. With the number of users that we have…* [This implies that the medical libraries make every effort to market their services to their numerous users].

Furthermore, the libraries did not have a written policy document for marketing their resources and services, which may be the reason why some services, were not marketed to users. This was confirmed by participant C when responding to the question as to whether their library was marketing their resources and services as follows: "We don't have a defined policy document per say that entails this, because all we do about marketing strategies is an extract of information resources management policies that are part of marketing information resources and services". This confirms that the medical libraries did not have written marketing policy documents and this is why marketing of information resources is not as efficient as it should be.

An understanding of user needs and the existence of policy documents will guide the nature of marketing of information resources and services in each medical library from the resources, services, facilities, strategies, personnel involved, facilities and equipment to the evaluation process of marketing library resources and services and so on(Rao 2014). One of the participants commented that a marketing plan should be implemented by the library. For him the library should ensure full the implementation of marketing practices. The participant D was of the opinion that: "The university library management should try as much as possible to initiate a policy guideline for marketing of information resources and to ensure that it is also

implemented. Not just officially on paper". This suggests that a marketing policy document is required to ensure effective marketing of information resources and services to the users.

5.6.6. Are all the services mentioned accessible?

The research question on this theme sought to assess the opinions of the students on whether the services available were accessible or not. It is pertinent to note that services when effectively accessed will facilitate marketing quality resources and services in medical libraries. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Table 5. 6.6 presents their opinion.

Table 5.6.6: Accessibility of the information services in the libraries *(n=277)*

S/n	Are all the services mentioned above accessible?	Accessible		Not accessible	
		Freq.	%	Freq.	%
1	Current information	200	72	77	28
2	User education	146	53	131	47
3	Reservation	150	54	127	46
4	Reference and information	157	57	120	43
5	Indexing and abstracting	104	38	173	63
6	Exhibition and display of new resources (books, journals, and reference sources)	164	59	113	41
7	Library orientation	120	43	157	57
8	Photocopying and printing	104	38	173	63
9	Others	12	4	265	96

Table 5.6.6 shows that current information services, exhibitions and displays of new resources (books, journals, and reference sources), reference and information services, user's education and reservation services are rated higher by students as those services that are easily accessible in the libraries. Reservation services are acknowledged by only 63(23%) regarding availability but are accessible to more than half (150or 54%) of the students. Indexing and abstracting and photocopying and printing are the least accessible services, as indicated by 104(38%). Participants B stressed that:

Officially there is no written document guiding this marketing policy but as you all know libraries are there for their users and without users there are no librarians. The productivity of a library can be seen based on the services it renders to its users. So, we try as much as possible to sell information resources, to advertise them to inform our users that these collections of books based on your disciplines are available…[This means that there is no written document guiding the conduct of marketing in the library. However, the library makes every effort to make its resources and services available to users].

Participant C added that the library newsletter, notice boards, flyers and shelves were used in updating, sharing and displaying new resources, respectively. The library also worked hand in hand with the Heads of Department and Deans to ensure that the library meets the needs of the users. The participant A stated that:

There is a new development, we used newsletter that we called the library update and there was a shelf that we used for display of new arrivals information resources. In addition, we used notice board to post flyers for notification in case there is any information that we would want to share to our users. We also try as much as possible to engage in the academic performance of the students in a way that we liaise with the heads of departments and the Deans of the various faculties. To see the students' productivity improved particularly those who are registered members of the library… [This confirms that medical library provides variety of services to the users such as a newsletter, a shelf for exhibition and display and notice boards that convey information to users. In addition, they are committed to improving the academic performance of the users].

5.6.7. To what extent are you satisfied with the following services provided by the library?

The research question on this theme sought to solicit the opinions of the students in order to assess the extent of users' satisfaction of the library services provided in medical libraries. The responses to this question were drawn from them at the four medical libraries of the study. The

4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Table 5.6.7: shows their opinion on a four-point scale of satisfaction

Table 5.6. 7: Level of satisfaction with services provided in the libraries (n=277)

S/n	Services provided in the Library	Strongly Satisfied		Satisfied		Dissatisfied		Strongly Dissatisfied	
		Freq	%	Freq.	%	Freq.	%	Freq	%
1	Current information	97	35	111	40	5	2	64	23
2	User education	37	13	125	45	19	7	96	35
3	Reservation	35	13	119	43	8	3	115	42
4	Reference and information	63	23	125	45	5	2	84	30
5	Indexing and abstracting	27	10	96	35	28	10	126	46
6	Exhibition and display of new resources (books, journals, and reference sources)	48	17	104	38	16	6	109	39
7	Library orientation	28	10	92	33	37	13	120	43
8	Photocopying and printing	27	10	81	29	47	17	122	44

Students were more satisfied with current information services than with any other services available in the libraries. This is indicated by 97(35%) and 111(40%) who were very satisfied and satisfied respectively with the services rendered by the libraries. This implies that other essential services may not be well marketed to the users. The next question is concerned as to whether library services satisfied the students' information needs or not. The results are provided in Figure 5.6.7 below.
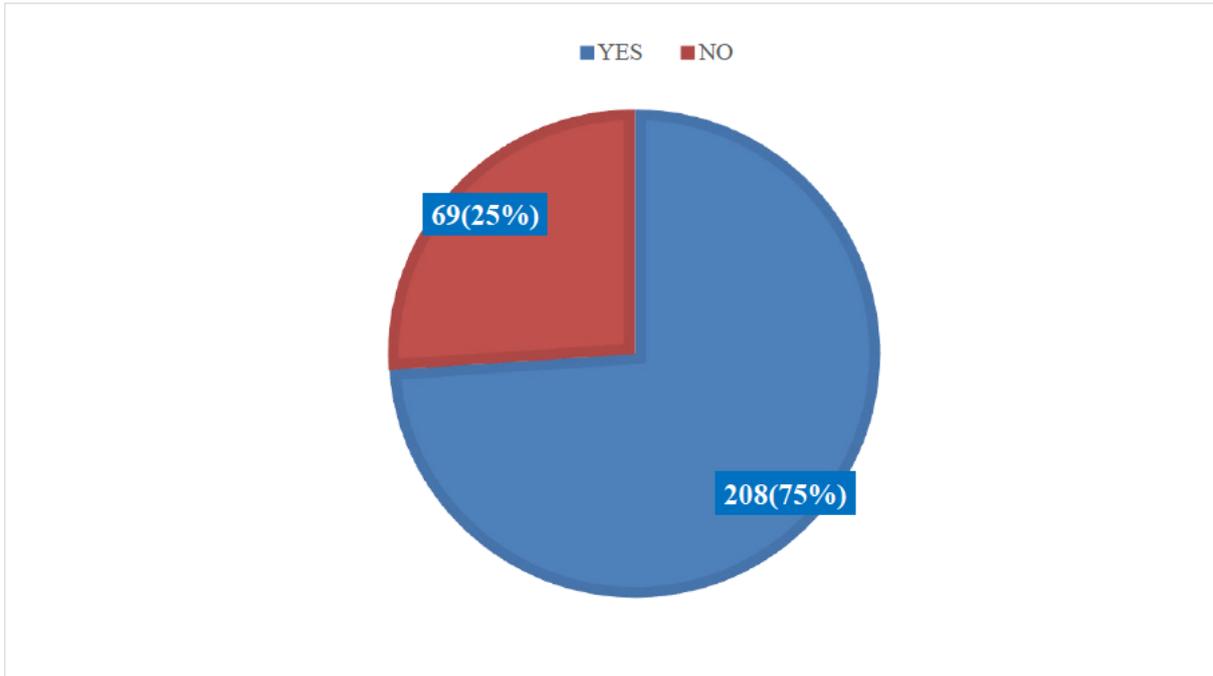
Figure 5. 6.7: Level of satisfaction with library services (n=277)

From Figure 5.6.7 above, 208 (75%) acknowledged that the library's services provided by the libraries met their information needs. Only 69(25%) of the students' needs were not met by the medical libraries. This opinion was supported by the heads of medical libraries noting that some of the strategies the library employed in ensuring that the information needed was provided included meeting with the faculty staff in connection with the needs of the faculty. Organizing seminars on the importance of library information resources and training users on how to use some information and communication technology (ICT) facilities that are difficult to handle and so on, as well as inviting the faculty to attend the seminars were other strategies. Participant A stated that:

> The strategies we used as I told you sometimes we go around and meet the staff directly. We organized seminars [and] invite them to the library, or to a particular place. Sometimes we send notices to some Departments about the importance of their information resources. We are using the library liaison officer, who is computer literate, if there is any ICT equipment that the library users cannot handle he offers his helping hand and put it through…[This shows that the library uses strategies such as seminars to inform users of its numerous resources and services].

5.6.8. Which of the following facilities help you find out about information resources and services in your library?

The research question on this theme sought to solicit the opinions of students and heads of medical libraries in order to assess the facilities that help students to find out about information resources and services in the medical libraries. This is because a good and conducive environment is needed in order to market library services effectively. The facilities may cut across conventional and technology-driven facilities that facilitate access to information resources and services. Their responses were drawn from both the medical students and heads of the medical libraries to see if they had similar opinions or not. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Table 5.6.13 shows the students' responses about the facilities available for marketing the available information resources and services in the libraries.

Table 5.6.8: facilities available for marketing the available information services of the libraries (n=277)

S/n	Facilities for marketing information resources and services in the library	Available		Not Available	
		Freq.	%	Freq.	%
1	Notice boards	207	75	70	25
2	Television programme	57	21	220	79
3	Radio programme	41	15	236	85
4	University notice system, (emails)	96	35	181	65
5	Use of social media (Face book, Twitter, and blogs)	89	32	188	68
6	SMS alerts	48	17	229	83
7	Newspapers and magazines	140	51	137	50
8	Library websites	129	47	148	53
9	Leaflets and posters	106	38	171	62
10	Others	25	9	252	91

The only platform considered most effective for the marketing of the available information resources and services of the libraries, as indicated in Table 5.6.13, are the notice boards (207 or 75% of respondents). Close to half or 140(51%) were of the view that they used newspapers

and magazines in the libraries. In the hierarchy of available facilities is the library websites by 129(47%), followed by leaflets and posters (106 or 38%).The least available platform considered for marketing available information resources and services of the libraries is the radio programme, as indicated by 41(15%) of the respondents.

Participants were also asked about their opinion on the facilities for marketing information resources and services in the library. One of the participants was of the opinion that library facilities were available for marketing of information resources and services Participant D noted that:

> *The library used facilities such as notice boards to communicate vital information about the library and its resources. The library also used the contacts of the students in WhatsApp accounts or student e-mails, bulletins, newspapers and magazines to inform the users of the latest developments in terms of new resources, services and any other vital information.* [This clearly shows that, the medical libraries used a range of facilities like notice boards, social media and the like to market their resources and services to users].

Participant A revealed that the library had a specific location where books, posters and banners were placed for marketing purposes. They sensitized users during what they referred to as sensitization week on developments in the library like the new arrivals of resources, services and much more. The librarians attended meetings with faculty members and used this forum to promote library services, such as printing and the distribution of posters and circulating handbills and the like. Participant A revealed:

> *Sometimes we have a place to put books posters and banners. There is what used to be sensitization week, where we tried to get the users and sensitize them about new ways and new initiatives on something that we acquired. For example, in this kind of faculty (faculty of medicine) if there is any new initiative in any field of human medicine we try through meetings, through posters through handbills to sensitize people.*[This indicates that medical libraries do their best to market and inform the users of anything new that comes in or has been acquired by the library].

5.6.9. The relationship between the ages of students and marketing of information resources.

Table 5.6. 9: Relationship between age of students and marketing of information resources (n =277)

Variables	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11
Age range(V1)	1.000	0.055	0.009	0.083	-0.012	0.032	-0.029	0.056	0.075	0.053	0.058
Notice boards(V2)	0.055	1.000	0.047	.116*	.297**	.225**	0.072	.284**	0.083	.198**	-.187**
Television programme (V3)	0.009	0.047	1.000	.288**	.269**	-0.053	0.081	.119*	.169**	.175**	.197**
Radio programme (V4)	0.083	.116*	.288**	1.000	.337**	0.078	.299**	0.083	.185**	0.084	.147**
University notice system (V5)	-0.012	.297**	.269**	.337**	1.000	.452**	.190**	.356**	.320**	.333**	0.036
Use of social media (V6)	0.032	.225**	-0.053	0.078	.452**	1.000	.273**	.438**	242**	.465**	-0.050
SMS alerts(V7)	-0.029	0.072	0.081	.299**	.190**	.273**	1.000	.185**	.180**	.153**	0.053
Newspapers and magazines (V8)	0.056	.284**	.119*	0.083	.356**	.438**	.185**	1.000	.123*	.289**	-.151**
Library websites(V9)	0.075	0.083	.169**	.185**	.320**	.242**	.180**	.123*	1.000	.381**	.174**
Leaflets and posters (V10)	0.053	.198**	.175**	0.084	.333**	.465**	.153**	.289**	.381**	1.000	.207**
Others (V11)	0.058	-.187**	.197**	.147**	0.036	-0.050	0.053	-.151**	.174**	.207**	1.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The result of the investigation did not reveal that the students' ages were significantly correlated with the patronage of the marketing information resources of the libraries overall ($p > 0.05$), but rather the patronage of the individual marketing information resources by the students was found to be significantly correlated ($p < 0.05$) on a pair wise basis. For example, the patronage of notice boards (V2) was importantly correlated with the use of radio programmes (V4), university notice system (V5), newspapers and magazines (V8), leaflets and posters (V10) and other marketing information resources of the libraries. Students' patronage of library websites (V9) was significantly correlated with that of leaflets and posters (V10) along with others marketing the quality information resources of the libraries. Thus, there is a strong correlation between facilities and marketing of information resources and services, as indicated by the study findings. The section below discusses the usefulness of marketing facilities.

5.6.10. How useful are the following facilities for informing you about the resources and services for marketing in your library?

The research question on this theme sought to solicit the opinions of the students in order to assess the usefulness of the facilities informing them about the resources and services to facilitate marketing quality resources and services in medical libraries. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. In this section, the researcher wants to find out from the respondents how effective the available facilities in the medical libraries are in informing or conveying information about the information resources and services available to users. Osinulu, et al. (2018) opined that for the libraries to attain competitive advantage in marketing, they need to ensure ease of location, ensure a high level ease of access to resources and services in the preferred format, competent library staff, access to ICT applications, attractive library equipment and facilities, clean and noiseless environment, adequate and ergonomic chairs and tables, clean toilet facilities, illumination and good ventilation, among others. Odine (2011) adds that the technique for the effective marketing of information resources and services depends on the provision of favourable atmosphere to users by the libraries. The results are presented in Table **5**.6.10 below:

Table 5.6.10: The usefulness of the marketing facilities/tools in the libraries (n=277)

S/n	Facilities for marketing information resources and services	Very useful		Useful		Not very useful		Not useful	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Notice boards	148	53	45	16	3	1	81	29
2	Television programme	42	15	38	14	50	18	147	53
3	Radio programme	28	10	52	19	36	13	161	58
4	University notice system, emails	82	30	44	16	32	12	119	43
5	Use of social media	81	29	56	20	19	7	121	44
6	SMS alerts	38	14	68	25	37	13	134	48
7	Newspapers and magazines	86	31	78	28	21	8	92	33
8	Library websites	52	19	94	34	21	8	110	40
9	Leaflets and posters	28	10	80	29	34	12	135	49
10	Others	8	3	14	5	20	7	235	85

The notice board, library website, newspapers and social media are facilities that were highlighted by respondents. Platforms like SMS alerts, leaflets and posters, among others, were not seen as useful for marketing the available information resources and services of such libraries.

5.6.11. Awareness of marketing activity in the library

Users were asked whether they were aware of any marketing activity in the library. The responses to this provided background information on the level of the marketing awareness of the students. This question was addressed to the medical students in the libraries involved in the study. The results are provided in the Figure 5.6.11 below.
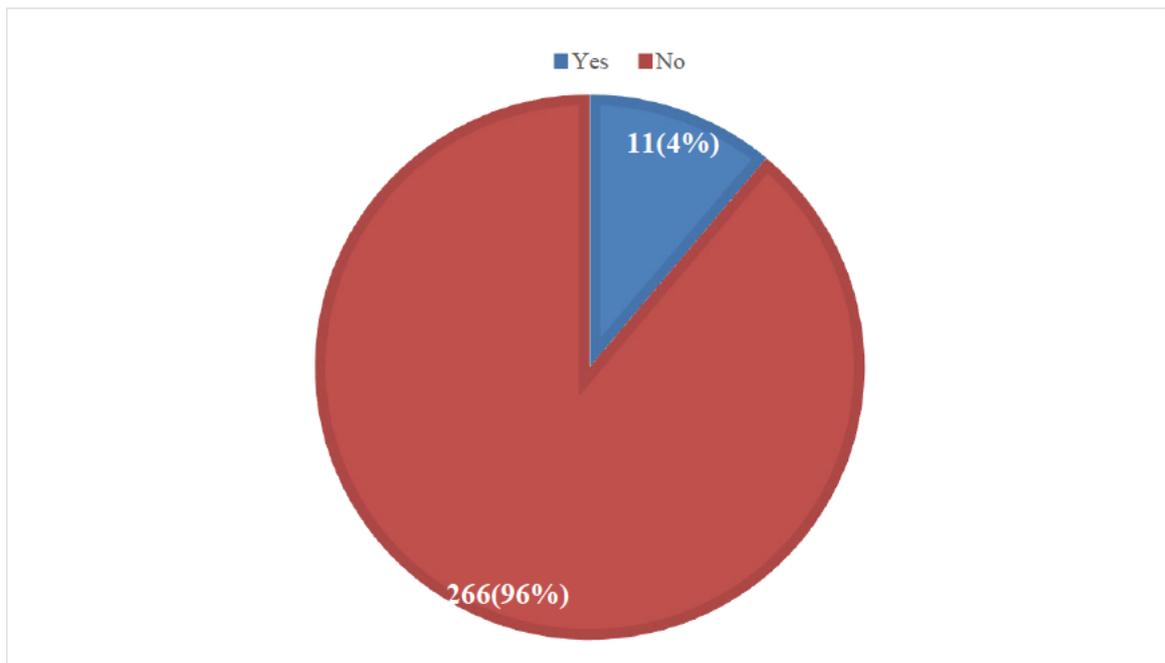
Figure 5. 6.11: Awareness of marketing activity in the library (n=277)

The findings showed that most of the respondents (266 or 96%) indicated that they were unaware of any marketing activity in the library, while 11 (4%) indicated that they were fully aware of it.

5.7. What marketing strategies and techniques are currently employed in meeting users' needs in the medical libraries?

The research question on this theme sought to assess the marketing strategies and techniques currently employed to facilitate marketing quality resources and services in medical libraries in the North-West Nigeria. The question was asked of students and the heads of medical libraries. The second research question of the study examined the strategies/ techniques deployed for marketing information resources and services in the medical libraries and their effectiveness. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Strategies/techniques are the most important concepts in marketing and an integral part of promotion. Responses to this question were derived from the medical students and the heads of the medical libraries in the four medical libraries.

Among the strategies assessed for the effective marketing of the information resources and services available in the medical libraries are the use of advertisements, exhibitions and displays of information resources available in the libraries and the use of notice boards and social media. Others are user education, the organization of public lectures, user orientation programmes and

use of posters and pamphlets. Most, (266 or 96%) of the users were also not aware whether the library undertook any activity to market its resources and services or not, as shown in Table 5.7.. Only 11(4%) of the students were aware that the libraries made deliberate efforts at marketing information resources and services. Table 5.7 clearly expresses their opinions:

Table 5.7: Strategies employed for marketing information resources and services in the medical libraries (n=277).

S/n	What are the strategies employed for Marketing in your Library	Yes		No	
		Freq.	%	Freq.	%
1	Advertisement	234	85	43	16
2	Exhibitions and displays	191	69	86	31
3	Use of social media such as Face book, Twitter, and blogs	213	77	64	23
4	Notice boards	215	78	62	22
5	User education programme	129	47	148	53
6	Public lectures	228	82	49	18
7	User orientation programme	191	69	86	31
8	Use of posters and pamphlets	203	73	74	27
9	Others (unspecified)	197	71	80	29

The strategy mostly the students are aware of is the use of advertisements. So, 234(85%) agreed they were aware of it. However, exhibition and display and user orientation programmes were the least strategies acknowledged by students, as indicated by 191(69%) each.

This was reiterated by Participant (A) who reported that they had marketing strategies and that what the library did at the beginning of every academic session was to organize orientation for new students. New students are trained on available library resources, services, operational hours and the code of conduct of the library. Furthermore, the library organizes a sequence of seminars and workshops for all library users on different topics, such as use of information and communication technology (ICT) and related tools, use of databases, reference sources and so on. The Participant A noted that:

> *Generally, there is always a plan of action. Every year we organize orientation for new students, workshops and seminars outside the library. We send to those we think we can send and where we cannot send we let them know that there is something going on somewhere and they should be attending. However, if there is a general user education workshop that has to be based in the faculty, that we are making our staff and students users know and be able to attend…*[This indicates that the library plans to market its resources and services through seminars and workshops to enlighten users on how best to use the library].

This was supported by the opinion of participant C who explained that the library marketed its resources and services to users. When it acquired new resources, they notified the community of the availability of such resources through notice boards. They also used shelves strategically positioned and dedicated for the display and exhibition to display new arrivals of resources, such as journals, books or reference sources. The Participants C quoted verbatim below:

> *As I told you earlier that we market our services through various means, in the sense that we used a kind of notification tool such as notice board, where we placed a notification of new resources, services and any vital information. The display shelf is positioned strategically at the entrance of the library and new collection are display first before moving them to their respective shelves.*[It shows that notice boards and display shelf's are some of the tools used as strategies for marketing of new resources and services in the library].

This also corresponds with another Participant's response regarding their library's involvement in marketing its resources and services. The participant expressed that library staff often meet with faculty members, who understand the curriculum and are familiar with different fields of academic research within the faculty of medicine. They then guide library staff in getting resources that meet users' information needs. Thereafter, the library will use selective dissemination of information (SDI) to notify users of new arrivals. This is a way of informing users of the availability of the new information resources in the library. This we understand in the participant A's words:

…it is these parameters you use to ascertain the user needs. It is when you determine their needs that you acquire the resources and it is after you acquire the resources that you start going about telling them that you have this, you have that. Previously, there used to be something that is similar to this. In our new approach to marketing, there used to be what we called Selective Dissemination of Information (SDI)…

Participant B acknowledged that they have strategies for marketing information resources and services of the libraries, which users were aware of that attract them to the library "We have strategies of getting them to come to the library".

Participant C stressed that Current Awareness Services (CAS) is an example. In this strategy, the library tries to promote and provide newly acquired information resources that are relevant to the user's area of interest. It also used social media tools like Face book, RSS feeds and Whatsapp to market information resources. One library uses the student handbook to market their services, as it contains useful information about the library, as well as its resources. In addition, libraries use what they call an ethnographic notice board in which resources and services are harmonized and displayed to users.

Participant C noted**:**

…we conduct Current Awareness Services (CAS), the CAS. In this regard we try to find out what does our users wants what do they want that is one aspect. And then we go into Face book, into RSS feed, we go in to even WhatsApp too, to market these resources based on the users demand or needs or what we feel is actually suitable or will be better or even can be utilize by the users. I have not mentioned the use of hand book because at the point of registration we normally give out handbooks to our users. [This means that medical libraries use different strategies such as CAS, social media platforms and handbook to market their services to users].

This was also confirmed by Participant A the library has been using marketing strategies to market resources and services, featuring a number of workshops, seminars and general user orientations. This is how students are trained as to how to use library resources efficiently,

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particularly in certain critical areas requiring special training like access to library catalogues, databases and references. The Participant A stated that:

> *Like I told you earlier on, every year we have series of workshop, seminars, orientation of new students. That I told you there is a faculty liaison officer who liaises with both staff and students. On every occasion he is talking to them about their needs, selling to them what we have or what services we can offer to them. Sometimes you don't have to give someone a book or a journal and what you need to do is to know how to get access to information source. If you tell him or teach that person how to access that I think you are marketing your resources at least you are making the library and the librarians to remain relevant in the...* [This means that seminars, workshops, user orientation and the library liaison officer are some of the key strategies used for marketing of information resources and services to the users].

5.8. What factors adversely affect the effective marketing of information resources and services to users in medical libraries?

The research question on this theme sought to assess what factors adversely affect the effective marketing of information resources and services to users in the medical libraries in the North-Western geopolitical zone of Nigeria. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. The question was asked of students and the heads of medical libraries to know the challenges medical libraries were facing regarding marketing of information resources and services. Knowing what these problems or challenges could assist in making the appropriate recommendations that will address the existing challenges. The participants in the study were asked what problems they experienced with the marketing of the library information resources and services. The responses to this question were derived from both heads of medical libraries and the medical students in the four medical libraries.

Among the factors assessed here are the levels of information resources in the libraries, their perceived currency, the tools available for their marketing and the general provisions in the libraries that could improve marketing of information resources and services, among others. Respondents could choose as many relevant optional answers as they could. Their opinions on these factors as they affect the libraries are listed in Table 5.8 below:

Table 5. 8: factors adversely affecting the effective marketing of information resources and services in the libraries (n=277).

SN	Factors that are adversely affecting the effective marketing in the libraries	Yes		No	
		Freq.	%	Freq.	%
1	Lack of information resources	262	95	15	5
2	Lack of adequate facilities for marketing information resources and services	157	57	120	43
3	Unstable network	128	46	149	54
4	The absence of alternative power supply	121	44	156	56
5	Negative attitudes of librarians	169	61	108	39
6	Lack of current information resources	191	69	86	31
7	Lack of adequate computers and related facilities	182	66	95	34
8	Lack of awareness of information resources and services	116	42	161	58
9	Library is understaffed	128	46	149	54
10	Others (unspecified)	215	78	62	22

The adverse factor most militating against the effective marketing of information resources and services in the medical libraries is the inadequacy of information resources. This factor was rated by 262(95%) of the students. This was supported by all the participants interviewed, who indicated that library books are expensive and these days purchasing some of these resources requires a large sum of money. In particular, medical books and online journals have been far more expensive than non-medical books in other subject areas. Online journals were also expensive to subscribe to. Participant A said that, among other things, the lack of information resources is attributable to:

> *The expensive nature of material these days is exorbitant. Books on medicine are very expensive. Even journals online are expensive. You find that when you go online most of these books or journals you find in an open access are certainly not the best or may not be what the users need. For those not in an open access, their cost is just too high. These things are acquired subject to the availability of the financial*

resources. You always see that when they say the minister of education is to go and defend his budget in the Senate or the house of representative, what happens at the end of the day is that the proposed budget may be slashed by 1/4 or 1/3; such that the proposed expenditure has to be curtailed. In fact, where the university cannot subscribe, all we do is to identify those and inform our clients with advises on the possibility of getting them. …[This indicates that inadequacy of resources and services is attributed to financial constraints due to budget cut during the budget defense and absence of support from the National Assembly members, are some of the major challenges that hindered the marketing of information resources and services in medical libraries].

Other factors acknowledged as adversely affecting the marketing of information resources and services available in the libraries were lack of current information resources acknowledged by 191(69%) respondents and lack of some essential equipment like computers and their peripherals(182 or 66%). However, lack of awareness of information resources and services was the least among the factors that adversely affect marketing of information resources and services in the medical libraries, as indicated by 116(42%) respondents (refer to Table 5:8. for details). According to Participant A the library has a lot of problems with regards to marketing of information resources and services. The participant noted the following:

The challenges are so enormous but the majors are; - the stability of the power supply, the ICT equipment themselves, maintenance of these equipment and then computer literacy on the part of the users. I was telling you some few minutes ago that there are some of the senior staff that are not even computer literate these are the major challenges. Some of these students come from the secondary school that is not well equipped regarding ICT facilities…[This established that stable power supply, ICT equipment and maintenance and level of computer literacy are some of the challenges of marketing in the medical libraries].

This was also confirmed by the researcher's observation. He discovered that the library had only eight computers in one of the medical libraries visited, which is insufficient given the number of

medical students enrolled there. These computers had also no connection. The researcher also observed that the libraries involved in the study were found to have very few printers and photocopiers, for example one (1) photocopier and one (1) printer in one of the libraries, one (1) printer only in another library, two (2) printers and two (2) photocopiers in the other library and, finally, one (1) printer and one (1) photocopier, respectively. The numbers of printers and photocopiers are inadequate, considering the demands and the number of users in each library.

Another participant further explained that the library might sometimes have enough computers for users, but the computers might not be in good working order. The Participant C noted: "When they come to the library, the library might have for example 30 or 40 computers, however, with time you discover that only 8 or little more that will function properly. These are some of the challenges". This means that maintenance of ICT equipment's is a challenge for marketing in medical libraries.

Another finding was the problems of the negative attitude exhibited by some of the library personnel towards library users, their attitudes to work and the way some heads of department or deans responded to issues concerning the information needs of their faculties and departments. Participant B expresses her dismay:

> *You cannot guarantee effective implementation of your strategy because on your part you try your best, but on another person's part, you encounter some issues on his or her attitudes towards the job. The responses that we used to get from the heads of departments and the Deans of the faculties, they do not like to respond to our request. In such a way that when you ask them to submit a comprehensive list of information resources they need. They do not like to respond most of the time, as you have to follow them before they respond.* [This indicates that negative attitudes of some library staff and lack of cooperation from deans of faculties and heads of departments are some of the challenges of marketing in medical libraries].

Other challenges raised by Participants D on the marketing challenges is that library staff do not have enough time to market library activities because they are overburdened with so many activities as well as network setbacks. Participant D noted that:

Some of the challenges we encounter most especially, is the time constraint because we are faced with a lot of tasks and some of the task are enormous. They need a lot of energy time and whatever. Sometimes we also experience network down time [and] once there is network down time you discover that any user that may be online that time they will not be able to access some of the resources and services.[This shows that lack of time and network problems hindered the marketing of information resources and services in medical libraries].

5.9. What measures can be employed to facilitate the effective marketing of information resources and services to users in medical libraries?

The research question on this theme sought to assess the measures that can be employed to facilitate the effective marketing of resources and services to users in medical libraries in the North-Western geopolitical zone of Nigeria. The 4Ps, 7ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Thus, 4Ps and 7ps marketing mix theory noted that both the products (information resources and services) is a component used as a measure that facilitate effective marketing in medical libraries. Similarly, the SERVQUAL model is adequate for assessing service quality in different fields. The question was asked of students and the heads of medical libraries. The fourth Research Question investigated the measures to be explored to facilitate marketing information resources and services in medical libraries. It is not sufficient to only find out what the problems or the challenges are, but it is also necessary to find the way forward for such challenges. Respondents were provided with a list of choices and able to indicate as many optional answers as they wanted. Measures suggested by them include better provision of required information resources. This would imply identifying the needs of users before acquiring materials for the library. Other measures included the creation of awareness, among users, the appointment of professionally competent personnel, ensuring that services including Internet were stable along with uninterrupted power supply, among others. The opinions of the students on the selected measures are tabulated in Table 5.9 below:

Table 5.9: measures needed for facilitating the marketing of information resources and services in the medical libraries (n=277).

S/n	Measures to address the existing challenges	Yes		No	
		Freq.	%	Freq.	%
1	Better provision of required information resources	148	53	129	47
2	Creating awareness among library users of what the library has to offer	79	29	198	72
3	Appointment of competent library staff to handle marketing in the libraries.	105	38	172	62
4	Provision of stable network facilities	93	34	184	66
5	Provision of the alternative power supply	116	42	161	58
6	Appointment of more staff to handle library activities	124	45	153	55
7	Better provision of current information resources	116	42	161	58
8	Provision of adequate computers and related facilities	82	30	195	70
9	Regular marketing of information resources and services.	102	37	175	63

The measure most agreed upon by the students for improving marketing of information resources and services to the users of the medical libraries is better provision of required information resources. In Table 5.9 this measure was rated by 148(53%) of them. This was followed by the appointment of more staff to handle library activities, as indicated by 124 (45%). Next in the hierarchy was the provision of alternative power supply and better provision of current information resources by 116(42%) students each. However, creating awareness among library users as to what the library has to offer was the measure with the least support by only 79(29%) for improving marketing of information resources and services.

This view was supported by all the heads of libraries who agreed that improved financing is a major area to be exploited in improving the available resources and services of the libraries. According to Participant C the library is doing its best to find ways to help itself to obtain more revenue to address some of its challenges. Participant C stated that:

We are introducing a lots of internally generated revenue services such as reprographic services, establishing of library local welfare canteen, establishing of library social welfare shop. So that we can generate little amount of money to salvage some of these issues that the management cannot solve, you know I mean cannot provide for the library.[This means that libraries are developing ways of generating revenue that will enable them to address some of their challenges in providing information resources and services].

In addition, one of the heads of medical libraries considered the number of staff to be a major challenge in the library marketing of information resources and services. The Participant D noted that:

We also have challenges such as inadequacy of information resources; though we have information resources but, they are not really what we need since they do not meet the need of our users. The library has to provide information resources that can serve the need of our users. '-----There is also, lack of adequate personnel in the library. In some occasion you might find librarians attending to a user while another one is waiting his/her turn. When he is exhausted, he or she may walk out of the library with the intention to come back later or the following day. [This indicates that there is a need for adequate and relevant information resources in the libraries. In addition, more staff are required to attend to the numerous users of the library].

Other measures that the libraries could adopt to improve the resources and their marketing in the libraries are soliciting support from alumni associations and donor agencies. The Participant A reported that:

There are other ways that we complement that. What we do to complement that is we is we talk to alumni association some of whom are very forthcoming and very helpful. We also contact these donor agencies sometimes you find that we got some help from journal publishers. Some send you hard copies while some give you open access to ascertain titles within a particular period. These are some of the ways we do to complement the collection development… [This

implies that soliciting support from alumni associations, donor agencies and the publishers are some of the measures adopted by the medical library to address some of their challenges].

5.10 Summary

This chapter has presented and analyzed the data collected from the questionnaires, interviews drawn from students and heads of medical libraries and observation by the researcher on marketing to enhance the use of information resources and quality of services in medical libraries of public universities in the North-West Nigeria. The presentation and analysis of data began with details on the number of respondents in the selected universities that were involved in the study, namely Ahmadu Bello University, Zaria, Bayero University, Kano, Kaduna State University and Usmanu Danfodio University, Sokoto. Students completed 277 questionnaires and each of the heads of the medical libraries (four) was interviewed. The researcher also visited the libraries to observe services and resources, usage and activities in each.

The study discussed the socio-demographic characteristics of the medical students and heads of libraries selected, along with their responses on aspects of marketing of information resources and services of their medical libraries. These encompass the gender of the respondents, level of study, age range and qualification of respondents and work experience, as well as the frequency and the purpose for using the library by the users. The major themes or variables presented and analyzed include the resources and facilities that were available to facilitate marketing of information resources and services in medical libraries, marketing the strategies/techniques currently employed in meeting users' needs in medical libraries, the factors adversely affecting the effective marketing of information resources and services to users in medical libraries and the measures employed to facilitate the effective marketing of information resources and services to users.

The major findings of the study indicate that marketing activities exist in all the libraries. However, due to various factors, the marketing is not as efficient and as effective as it should be. The findings indicate that books are the most available information resources accessible to and used by the students in the library. This tallies with the opinion of the heads of medical libraries who confirmed that the major library resources are books. Current information is the most common service accessed and used by medical students. By and large, the study found that the

notice board was the most common facility used for marketing of information resources and services in the medical libraries involved in the research.

The findings also reveal that some of the major strategies and techniques used by the medical libraries to market themselves include advertisements, use of social media and user orientation programmes. It was further noted that they have multiple strategies that they use to attract students to the libraries. These include seminars and workshops and the use of a library liaison officer, who is responsible for training staff and students in information and communication technology related issues. The findings revealed that none of the four medial libraries involved in the study had a written policy documents for marketing information resources and services.

The results show that there are significant challenges in marketing of information resources and services in the medical libraries, such as scarcity of information resources, mainly due to the expensive nature of medical resources, budget cuts and the inadequate provision of financial resources. The study illustrated that the most desired measure for improving marketing of information resources and services to the users of the medical libraries is the better provision of required information resources. All the Participants agreed that improved funding is the primary factor that would equip the medical libraries with the available resources and services. Others are the provision of current information resources and the employment of more competent library staff to handle marketing quality library resources and services. The next chapter will discuss the research findings of the study.

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CHAPTER SIX

DISCUSSION OF RESEARCH FINDINGS

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6.1. Introduction

The main purpose of discussing research findings or interpretation of results is to derive conceptual meanings concerning the research questions, existing literature, key variables and the research problem (Creswell 2018). Stranger (2015) added that the discussion of findings considers major results in addition to interpretation and the integration of their meaning into other studies. An explanatory sequential mixed method was considered appropriate for this research and hence was used for the study. An explanatory sequential mixed method, according to Creswell (2018) is when the researcher collects quantitative data in the first stage, analyses the results and then interprets and describes them in a qualitative approach

This chapter presents the discussion of the research findings drawn from the questionnaires, semi-structured interviews and observations. The main objectives that the present study set out to achieve was to investigate the resources and facilities that are available to facilitate marketing quality resources and services in medical libraries; the marketing strategies and techniques that are currently employed in meeting users' needs in medical libraries; and the various factors that adversely affect the effective marketing of information resources and services to users in the medical libraries. In addition, the research explored the measures to be employed to facilitate effective marketing of information resources and services to users in medical libraries in the North-West Nigeria.

It should be noted that the present research is unique because there is a paucity of literature on the marketing medical library resources and services specifically in Nigeria. The study therefore bridged the existing knowledge gap and adds to the literature on marketing of information resources and services. See section 1.6 in chapter one for details.

The chapter is structured according to the research questions reflected in section 1.4 of Chapter One. The discussion of the research findings focuses on the following research questions:

1. What resources and facilities are available to facilitate marketing of resources and services in medical libraries in the North-West Nigeria?
2. What marketing strategies and techniques are currently employed in meeting the users' needs in these medical libraries?

3. What factors adversely affect the effective marketing of information resources and services to users in these medical libraries?

4. What measures can be employed to facilitate the effective marketing of information resources and services to users in these medical libraries?

The 4Ps, 7Ps marketing mix theory, 4Cs theory and SERVQUAL model were used to guide the present study. The research findings were guided by the questions that covered the demographic data of the students respondents and the library staff participants who comprised gender, level of study, age range, the qualification of respondents and working experience as well as questions relating to the availability and marketing of resources in medical libraries as per the research questions. The findings revealed the different information resources, information services and facilities or tools used to promote the use of information resources and services. The study findings further highlighted various strategies and techniques used to promote available resources and services for optimum use in the medical libraries studied. This was covered by Research Questions 1 and 2. The findings also uncovered the various factors that adversely affect marketing of information resources in the library. Furthermore, this study identified the measures deployed to address the challenges for effective marketing of information resources and services in the medical libraries involved in the study. This was covered by Research Questions 3-4, respectively.

This chapter, therefore, sought to connect the literature review and the conceptual framework with the results presented in Chapter Five to explain how the results validate or contradict the literature on marketing of information resources and services.

6.2. The socio-demographic data of the respondents

Knowing the demographic characteristics of the medical students and heads of medical libraries respondents involved in the study is necessary to understand the objectives of the present study. In addition, such information was purposely collected to assist in understanding the nature of the respondents involved in the study that might help in interpreting any trends in their responses. The study sought their gender, their levels of the study, age range, qualification and work experience all of which are deemed as pertinent.

6.2.1. The Gender distribution of medical students and the heads of medical libraries

The discussion of gender is important because it will assist the libraries in knowing who and who among the two genders used the library the most and may affect marketing strategies. At the same time, such information will enable medical libraries to know what exactly their users want from different points of view because marketing is about determining the needs of users with the aim of meetings those needs.

In terms of the gender statistics of the respondents, 195 (70%) were male and 82 (30%) female. Of the total number of the heads of medical libraries interviewed, three (3) were male and one (1) was female. This clearly indicates that among the medical students in the four selected universities, male students patronized library services much more than their female counterparts. This was also corroborated by the researcher's observation during the data collection that showed male students impressively patronized the library more than female students. This finding correlates with that of the research carried out by Anafo (2014) on marketing strategies for information services in the chartered accountants institute of Ghana. The research found that45 (75%) of the respondents were male and 15 (25%) female, indicating that the accounting profession was still male dominated. Likewise, Kumar (2014) expressed a similar sentiment in a research with a focus on marketing data products and services in the University Library of Kurukshetra in the social sciences fields. The research found more male (75 or 54%) users of the products and services in the library than females (65 or 46%).

Similarly, the work, of Olasore and Adekunmisi (2015) discovered that 78(52%) respondents were male and 72 (48%) female. This indicates that majority of the respondents that comprised the target population were males, who, as the findings indicate, utilized electronic information resources the most in the library. This therefore signifies that there are more male users of library resources and services than females; hence, there is the need by the medical libraries to make extra efforts to attract more female students to use their available resources and services. The findings agreed with Omopupa (2016) in his work on the information behaviour of the medical faculty in tertiary health institutions in Kwara State, Nigeria revealed more males than their female counterparts. Moreover, the findings also disclosed two male medical librarians in the College of Health Sciences (CHS) both in the University of Ilorin and Kwara state College of Nursing and Midwifery.

Only one of the four heads of the libraries is a female. This indicates that there are more male librarians than females in managerial positions in medical libraries. The findings are consistent with those of Lawrence (2015) who investigated marketing academic library services for effective service delivery in Delta State University, Nigeria. The study confirmed that out of the total respondents in the study, 21 (70%) were male and 9(30%) female. The findings are also aligned with those of Ravi (2019), who carried out a similar study on the outreach techniques in the promotion of library information services and resources. The study revealed that 94 (60%) of 157 respondents of the study were male and 63 (40%) female. In the contrary, however, the study of Osinulu et al. (2018) on marketing strategies used by librarians in a state university revealed that 7(58%) of the respondents were female and 5 (42%) male. The next section discusses the students' level of study.

6.2.2. Students' level of study in the selected universities

The findings of the study indicated that students in their 400 Level of study in the universities comprised the highest number of respondents, namely 95 (31%). Students in their 100 Level and others particularly postgraduate students, who did not specify their level of study, comprised the lowest number (23or 8%) each. This variation in number is associated with the presence of the students in libraries, where the questionnaire was administered. The higher their number in 400 Level in the libraries was deeply engaged in their final year preparation of their research projects and were, therefore, in need of more library resources and services in the medical libraries of the universities. Also, the administration process of the questionnaire coincided with the end of the academic session and some of the students were writing their exams. The responses were later found to be mainly from the Four Hundred (400) Level students, who were immersed in reading and searching for information. For this reason, they patronized the library regularly.

In terms of demographics, the current study results differ from the research conducted by Ahmed and Al-Reyaee (2017) on knowledge and the use of electronic information resources by medical students in Saudi Arabia. The study revealed that the distribution of respondents across the different levels was 52 (34%) 100 Level students, followed by 42 (27%) 200 Level students. Others were 26 (17%) 300 Level students, 21 (14%) 400 Level students and 13 (8%) 500 Level students. This indicates that 100 and 200 Level students became more aware and responded better than the 300, 400, and 500 level students, respectively. In stark contrast to the study of Ahmed and Al-Rayaee (2017) however, a research by Ajibona, Abomoge, Adepoju, and

Oluwaniyi (2019) focusing on Library services provision on the academic performance of nursing undergraduates in selected Universities in South-West Nigeria showed that the majority of the respondents (75 or 30%) were in 200 Level. The 300, 400 and 500 Level participants were clinical students in different Levels of clinical attendance.

Similarly, Mohammed (2019) in his work focusing on marketing library and information services in selected technical universities in Ghana found that the majority (123 or 43%) of the respondents were in 100 Level, 87 (31%) in 200 level, 48 (17%) in 300 Level while 27 (9%) were in 400 level or final year. This implies that the majority between 200 and 400 Level patronized the library more than the other level students. The next section reports on the educational level of students by gender.

6.2.3. The Educational level by gender of students

The findings of the study indicate that a majority of the respondents, both male and female students involved in the study, 64(23%) and 31(11%) respectively, were in the 400 Level. However, female students at postgraduate level were the smallest group of respondents, numbering5 (2%). This indicates that the majority were in the 400 Level, both male and female. The sections below discuss their educational level by age.

6. 2. 4. The Educational level of students by age

The students within the age range of 21 and 26 years numbered 132(48%) of the total number involved in the study. The vast majority of them were in 400level: 66(24%). Those within the age range of 38 years and above formed the smallest number of participants 6(2%) and the majority of them were in 500 Level. This confirms that most of them were between the ages of 21-26 years and in 400 Level. The next section discusses the educational qualification and working experience of heads of medical libraries.

6.2.5. The Educational qualifications and working experience of the heads of medical libraries

The four heads of the medical libraries interviewed were asked to provide information about their educational qualifications. All of them have a Masters' degree, in Library and Information Science from various universities in Nigeria and all of them have their first degrees in Library and Information Science as well except one, whose first degree is in Microbiology.

These findings tallied with those of Okite-Amughoro's study (2017) on the effectiveness of web 2.0. in marketing academic library services in Nigerian universities, where it was found that most of the librarians have Masters' degree, that is to say, 53(49%) and 29 (27%) had Masters' and first degrees, respectively. The findings also corroborate with those of Olasore and Adekunmisi (2015) where it was found that the majority or 91(61%) of the respondents had Masters' degrees and were aspiring for a PhD programme. In addition, a study by Angeline (2019) revealed that 78 (41%) had MLIS, 44 (23%) BLIS, 44 (25%) MPhil and 21 (11%) Ph.D. In contrast to the present study, a study by Omopupa (2016) on information Behaviour of Medical Faculty in Kwara State, Nigeria found that the majority of the participants, (40 or 25%) held B. Sc. degrees and 38(24%) were Masters 'degree holders. Similarly, Amina and Nwanne (2015) reported that most of their respondents (159 or 53%) had either B.Sc. or B.Ed. degrees or 105(35%) of the respondents were MLs/MSc or M.Ed. holders. On the other hand, 30(10%) were Diploma (OND) and 6(25%) Ph.D. holders.

The results of the interviews about the working experience of the heads of the medical libraries indicate different levels of working experience right from their early career up to their current position. They indicated in the course of the interviews that Participant B had been in the present position for the past six years. Similarly, Participant D had been in their current position for five-years while the Participant C had been in the position for less than a year (since 2019). Finally, the last head of the medical library A had been in the post for just two months.

However, regarding their overall experience in the profession, it was indicated by one of the heads of the medical libraries that despite having the least experience as a head of the medical library, he had more years of experience in the profession than all the other heads interviewed. This is because he had been in the library as a librarian in the cataloguing and classification division for the last thirty (30) years, since December 1986 and had worked with so many people and in various aspects of librarianship. This indicated that the majority of the heads of medical libraries have different levels of experience as heads of medical libraries.

The findings are in line with Ajegbomogun and Diyaolu's findings (2018). Their results show that the majority (78 or 69%) of respondents' years of experience are within the 1-10 year bracket. The study by Ganiyu (2020) indicated that the majority of the respondents have been working for 6-10 years. This finding corroborates with Omopupa's (2016) study, which reported that the majority of the respondents is (40 or 24%), had 6-10 years post qualification experience.

This indicates that the majority work experience fell within 6-10 years. The section below discusses the frequency of the use of medical libraries.

6.3. Frequency of the use of medical libraries

This section seeks to present the frequency of the use of the library by the respondents. The researcher wanted to know how frequently the medical students used the library because frequent usage is an indication that the library consistently meets the information needs of students. This draws more students to the library more regularly. It also shows some level of marketing information resources and services to the library users by the libraries which also accounts for the students' level of patronage.

The findings revealed that 132(48%) medical students who used the medical libraries of the universities on a daily basis constituted the highest number of all users, while those who visited the medical libraries fortnightly were much less (7 or 3%). This indicates that almost half of the medical students used the libraries on a daily basis. This is supported by the findings of Kaladhar,Naick and Rao (2018) who noted that it is clear that most respondents (103 or 29%) visited the library daily, 100 (28%) weekly, 77 (22%) once a month and 74 (21%) twice a week. Only 6 (2%) rarely visited the library. The study findings were equally in line with the study conducted by Shivappa and Veerabasavaiah (2018) on the use of library resources, services and facilities among undergraduate students of Forestry College at Ponnampet, Kodagu district Karnataka state, which indicated that 69(66%) visited the library daily and 23(22%) three times in a week. Only 7(7%) used the library once a week, 3 twice in a week (3%), 2 occasionally (2%) and once in a month was the response by 1(1%) student.

The current findings are also similar to the studies by Kumar (2014), Arumugam, Balasubramani and Pratheepan (2019) and Mani and Padma (2019) who reported that a majority of the respondents visited the library on a daily basis. In contrast, however, a study by Oluwole and Adeyinka (2019) on the influence of information technology skills on library patronage by undergraduate students of South – West Nigeria indicated that the majority of their respondents (435 or 33%) patronized the library 2-3 times a week. A total of 354(27%) participants patronized it on a daily basis, while 175(13%) did so once a week. In addition, 124(9%) participants patronized the library once in a semester, while 98(7%) patronized once in two weeks. Furthermore, the library was patronized monthly by 75(6%) participants. This therefore signifies that the majority of students use the library 2-3 times a week. The implication is that the

frequency of usage of the library differs at different time intervals. On the other hand, the research by Anafo (2014) indicated that majority of respondents (10 or 84%) visited the library occasionally while 1(8%) did so rarely.

A visit to the libraries indicated that only one of the medical libraries involved in the study had a prototype library structure and the rest, (three) were converted structures. The implication is that there might be varying degrees of inconvenience, noise and other unwarranted disturbances that might distract the users' attention in these locations. Ventilation is another factor associated with converted structures. Cross ventilation was compromised and lighting was not appropriate. Once there was a power outage, the library would fall into darkness and could no longer be used for studies, learning and research by students. It is a well-known fact that in Nigeria there is an absence of stable power supply. This has negative implications for the preservation and conservation of library resources, because when the resources are not stored in an appropriate atmosphere, particularly in tropical countries such as Nigeria, then the conservation of the resources is at risk.

The researcher also observed that in all the four medical libraries, there was an appreciable level of patronage of the libraries among the students. Therefore, it can be deduced that all the medical libraries have relatively good resources available conducive for reading, research and learning. Generous seating capacity was in place. The libraries could accommodate five hundred students (500-550), a little above two hundred (206-250), one hundred and ten (110-200) and forty (40-50) students, respectively. The section 6.4 below discusses the purpose for using the library.

6.4. An assessment of the purpose for using the library

In this section, the researcher sought to establish the purpose for using the library. Why students patronize the libraries would enable the researcher to analyse, patronize and suggest what has to be done to improve usage in providing more resources and the services that will make the library a conducive, informative or 'infotainment' centre, as it was called by some student respondents. This is for the benefit of students, staff and researchers. At the same time, it will serve as a basis for the responding libraries to make further improvements, regarding resources and services. The responses to the relevant questions were drawn from the students of the four medical libraries of public universities in the North-Western geopolitical zone.

The findings of the study show that for most (239 or 86%) of the students their purpose for using the libraries was to read the literature in their areas of specialization. Some (97 or 35%) used the

libraries for current information while for 79 (29%) it was for borrowing materials and information resources. The least in the hierarchy is 29 (11%), who said that they used them for utilizing services like printing and photocopying relevant documents for their study. It was observed that in all the four medical libraries studied, there were available to varying degrees relevant books in most of the subjects studied, such as medicine and other health-related programmes run by the universities. Some of the books were not current publications. This might be due to the fact that the libraries were suffering from inadequate funds, as claimed by all the heads of the medical libraries when questioned about the issues pertaining to the availability of resources. However, it was observed that some of the printed journals exhibited and displayed in most of the libraries were relatively current editions published in 2014, 2015 and 2016, for example.

These findings are also in tandem with those of Kumar's research (2014) on marketing of information products and services in Kurukshetra University Library, which indicated that the majority of the respondents utilized the library for multiple purposes. More importantly, the research found that the key purpose for which users used the library was for research purposes. Other purposes were for social science research (112 or 94%) and education (85 or 71%). Moreover, the research indicated that a large number (64or 54%) always used the library for current information and34 (29%) sometimes used it for current information. It further indicated that in social sciences 94 (79%) users used journals for research needs in Kurukshetra University Library. Ramjawan (2011) in South Africa like Kumar (2014) similarly revealed that researchers were able to obtain their own information for research purposes. Section 6.5 below discusses the assessment of the resources and facilities available to facilitate marketing of information resources and services in medical libraries.

6.5. The assessment of the resources and facilities available to facilitate marketing quality resources and services in medical libraries in the north-western geopolitical zone of Nigeria.

This was the first Research Question of the study and it was based on the 4Ps, 7Ps, 4Cs marketing theory and the SERVQUAL model. The research question on this theme sought to assess what resources and facilities were available to facilitate marketing resources and services in medical libraries. The question was asked of students and the heads of medical libraries. The 4Ps, 7Ps, 4Cs marketing theory and SERVQUAL model informed the research question. All the theories

were appropriate because they have been adopted and used in many empirical research studies of marketing in library research, for example, by Rind and Mirjat (2020); Bamigbola (2013), Jarad (2020)and Hsu, Cummings and Wang (2014). The 4Ps and 7Ps marketing theory (1981) noted that products (resources, services and facilities) are the physical objects that offer substantial characteristics as well as a set of benefits that could meet customers' (library users) needs. Similarly, the SERVQUAL model notes that tangibles (resources and facilities) are part of the specific standards that are used by clients in evaluating service quality (library services). A series of questions were put to respondents to answer this research question.

The findings of the study show that books are the most abundantly available information resources in the libraries as indicated by most of the students: 252 (91%). This was followed by journals (194 or 70%), newspapers and magazines (180 or 65%) and reference resources (for examples encyclopaedias and dictionaries) (168 or 61%). Other information resources, such as audio-visual material (39 or 14%), posters (71 or26%), databases (62 or 22%) theses and dissertations (71 or 26%) were unknown to most students, as less than 40% agreed on their availability. Their responses were consistent with the views of all the heads of medical libraries interviewed from the four universities involved in the study. Their responses indicated that libraries had different forms of information resources, namely books, journals and some other printed resources.

Investigation into the resources by the researcher revealed that all the libraries of the study had some books which covered most of the subject areas taught by the universities even though they were inadequate, given the number of students enrolled in the various programmes. The researcher established that the libraries had quantified their materials availability as at the first quarter of 2018, as presented in section 5.6.7 of Chapter five.

The findings of this study support those of Abdulsalami and Salami (2013) on marketing information services in Polytechnics Libraries in Nigeria. They reported that books, journals, encyclopaedias, pamphlets, reports and tape recorders were generally available in all the polytechnic libraries involved in the study they conducted. Similarly, a study conducted by Upev, Akpe and Beetseh (2015)reported that marketable library information resources were predominantly books both in print and electronic forms, followed by magazines, newspapers and statistics. Others were internet, films, journals and so on. This indicates that there are numerous kinds of library information resources for marketing. The current findings are also in line with

those of Aderibigbe and Farouk (2017), Shehu (2015).Busari, et al. (2015) and Adegoke (2015:3), who maintained that information resources were those materials which empower libraries to complete their role successfully and they can be in printed and non-printed formats, which include textbooks, journals, newspapers, magazines, indexes and abstracts, reports, CDROMS, databases, internet, email, videotapes/cassettes, diskettes, computers and microforms.

In contrast, a study by Okon and Umoh (2014) concluded that the relationship that exists between the marketing of the product or service and the nature of the service or product influences how these resources and services are being patronized. The resources available included-resources, online public access catalogues and books. Mollel (2013) asserts that libraries can deliver abstracts, summaries of information and bibliographic information. Other resources include books, journals, databases and bulletins and so on. Amina and Nwanne (2015) and Upev, et al. (2015) observed that librarians at various Nigerian universities provide a collection of important information resources and services to the entire client body comprising of staff and students. The information resources offered included electronic resources and services, magazine articles, multimedia, blogs, personal experiences, expert opinions, encyclopaedias and web pages as some of the resources available for marketing in the library.

This means that the libraries should ensure that the resources needed by their clients are provided. Also, a wide range of library information ought to be made accessible for marketing in medical libraries. The perception during the interviews with these four respondents was that their libraries lacked sufficient information resources. This lack of adequate information resources was associated with the particular Nigerian situation. This implies that Nigeria's economic situation impacted negatively on the acquisition of adequate information resources in medical libraries.

The problem is not just the issue of marketing information resources and services in the libraries, but the inadequacy of what to be marketed. The inadequacy of these resources, as observed by the researcher, was accompanied by insufficient financing and to a certain degree there was a lack of involvement by some heads of medical libraries in the library acquisition process as well. The researcher's efforts to obtain an acquisition policy from some of the libraries were unsuccessful. What is more, some of the available library guides did not discuss the acquisition policy of either the main library or branch libraries in detail. This explains why, when responding as to whether the medical library had an acquisition policy, participants B pointed out that there

was an acquisition policy for the library, but she was not part of the process of deciding what resources got purchased. Requests for library resources are usually sent to the university Librarian's office. This shows that library resources are processed and acquired from the central acquisition department. Thus, medical libraries just forward their requests to the acquisitions department.

Participants A interviewed concurred with the view that the acquisition policy requirement could only be complied with when funds were available in the library. This confirms that the implementation of the acquisition policy is determined by the funds available. Once there are enough funds, the medical library would acquire adequate resources as per the provisions of the policy.

These responses were corroborated by the researcher's observations. A comprehensive library guide with an acquisition policy was found in one of the medical libraries. It stipulates that a minimum of two copies should be purchased in terms of books and journals, while one copy of audio-visual and e-resources should be purchased. According to the 4Ps and 7Ps marketing theory, a product has to be a physical object or service that offers a set of benefits that the marketer provides (Mollel 2013) This is consistent with the SERVQUAL theory, that quality service has to be tangible with the presence of physical facilities and materials for communication (Kiran 2010). This therefore indicates that the products and tangibles constructs affect marketing of information resources and services. The findings in the study proved that products and tangible attract users to patronize the library and its resources. Products could be physical objects, services or benefits that the marketer provides.

It is worthy of note that all the libraries had an acquisition policy, but not all the heads of medical libraries were fully aware of the acquisition process. This is because most policies operated from the central library, as the findings of this research indicate. The results are consistent with the findings of previous studies by studies by Bello (2015) and Amina and Nwanne (2015), who reported that the most significant challenge confronting marketing information resources in Nigeria is finance, that marketing, as should be obvious, is a cost-intensive activity. The implication is that the absence of adequate funds has a negative impact on the acquisition of information resources. Section 6.6 below discusses accessibility of information resources in the libraries.

6.6. The accessibility of information resources in the libraries under study.

In this section, the researcher sought to determine whether the available information resources were accessible to users. The question was aimed at understanding how accessible the resources available in the four medical libraries in the North-Western geopolitical zone were to student users. Merely acquiring resources is not enough; these resources need to be made accessible to the users. The findings show that available books, journals, newspapers and magazines along with reference resources (example, encyclopaedias and dictionaries) were accessible and utilized by the students in the libraries. The utilization of these information resources was however where the consensus about accessibility stopped. For other resources, such as audio-visual materials, posters, internet, databases, theses and dissertations along with other miscellaneous resources, there was no agreement on the level of their availability and accessibility to the students.

Chegwe and Anaehobi (2015) noted that the mere provision of library resources in the library is not sufficient but making them accessible and usable to the satisfaction of clients is paramount. This finding agrees with Oguntayo (2013), who reported that dictionaries, journals and textbooks were some of the available information resources in medical libraries studied. Low computer literacy to browse the internet was the major problem associated with the use of some information resources .Oguntayo (2013) concluded that creating awareness of information resources was essential for the maximum utilization of the information resources in the medical libraries.

Similarly, Anyaoku (2015) in a study on evaluating undergraduate students' awareness and use of medical library resources in the context of Nigeria concurred that there was high awareness of print resources on their part. Almost all the respondents (285 or 97%) in that study indicated that they were aware of the availability of books in the medical library. 286 (87%) were aware of journals in the library, newspapers (256 or 87%) and encyclopaedias (206 or 70%) respectively. This is also confirmed in the study by Okon and Umoh (2014) that concluded that the relationship that existed between marketing product or service and the nature of the service or product influenced how these resources and services were patronized. The resources available included-resources, online public access catalogues and books. This implies that the use of some information resources for marketing by students, from these findings, is positive. Consequently, access to other resources by students is so negligible that such resources, too, just as several

others, ought to be constantly accessed as well. The next section discusses currency of library resources.

6.7. An assessment of currency of library resources

This question sought to examine the currency of information resources. In this regard the researcher wanted to find out how current the available information resources in the four medical libraries of public universities in the North-Western geopolitical zone were. This is because there is a relationship between the currency of resources, the satisfaction especially for medical students and medical professionals and the marketability of such information resources to users, as well as the reputation of the library.

On how current the available information resources provided in the medical libraries were, 147 (53%) of the students were of the view that such information resources were current, while 64 (23%) opined that they were relatively old on the grounds that they were less than 5 years old at the time of this survey. Some (66 or 24%) students were of the opinion that the available information resources were outdated. This was corroborated by one of the heads of medical libraries when he was asked about the resources available. The respondent pointed out that some of the library's challenges were inevitable because the availability of funding determined the acquisition of current resources and the funds were presently insufficient. This explains why requests from users were sometimes turned down. This indicates that the challenges for the libraries were tied to inadequate and dated resources in medical libraries due to financial constraints. This finding is aligned with the view of Okon and Umoh (2014), who assert that marketing is a belief in service and an effort to attain user satisfaction. Marketing also relies on the kinds and the quality of resources and services presented to the public. Fought, Gahn and Mills (2014) state that creating a marketing programme to better understands the needs of library users helps shape the collections and services of libraries to meet those expectations and then ensure that these collections and services are recognized.

A visit to the medical libraries enabled the researcher to observe that some of their books were outdated. This is a result of inadequate financial resources in the libraries, resulting in budgetary cuts that had been experienced by the universities in general and the libraries in particular. This finding is aligned with the study by Okon and Umoh (2014), who reported that lack of funds, represented a major obstacle to the marketing of information and library services in the university

libraries in Nigeria. Consequently, they found it difficult if not impossible to fund this very important aspect of library routine. Section 6.8 below discusses an assessment of the services available in the library.

6.8. An assessment of the available services at your library that you are aware of

This question is the second part of the Research Question One of the study and is also based on 4Ps, 7Ps, 4Cs marketing theory and the SERVQUAL model. The research question on this theme sought to assess the services available in the libraries under study from the perceptions of the students and heads of medical libraries. The 4Ps, 7Ps, 4Csmarketing mix theory and SERVQUAL model informed the research question. The models were appropriate because they have been adopted and used in many empirical research on marketing in library research, for example, in studies by Rind and Mirjat (2020), Agboola, Bamigboye and Owolabi (2019),Patil and Pradhan (2014) and Jarad (2020).

The 4Ps and 7Ps marketing theory (1981) noted that the marketing mix is the planned set of components that make up the products (information resources) or services (library services) offered to the market (library users). This will in no small measure enable library and information services to achieve the target market (meet users' needs) and stipulated objectives. Likewise, the SERVQUAL model noted that reliability is the ability to give out the required service (library services) consistently and accurately. Therefore, this section provides the responses to the questions about the availability, awareness and use of library services in the medical libraries. The provision of services is one of the differences between a library, bookshop and book sellers. A library is incomplete without the efficient provision of core services that will attract and aid the use of the resources available.

The findings show that the availability of current information services was the most common service acknowledged by 199 (72%) students. Services which students were not fully aware of are exhibitions and displays of new resources (books, journals, and reference sources) indicated by 154 (56%), reference and information services (152 or 55%), library orientation (144 or 52%), user education (142 or 51%) and reservations (132 or 48%). Inter-library loan was the least acknowledged available service in the medical libraries, as indicated by 54 (20%) of the respondents.

This was supported by Participants C interviewed, that the library used newsletters, notice boards and flyers respectively to update, share and display new resources. The library also liaises with the heads of departments and deans to update and display resources available to satisfy users' needs. This confirms that medical libraries provided a variety of services to users, such as a newsletter, a shelf for exhibition and display and notice boards that conveyed information to the users.

Similarly, the presence of those shelves dedicated to displaying the library's new arrivals was observed to be positioned strategically in all the libraries visited by the researcher during the data collection process. According to the 7Ps and 4Ps marketing mix theory, products may refer to services rendered to users. Similarly, the SERVQUAL model noted that reliability is the ability to provide required services (library services) accurately (Kiran 2010). Therefore, products and reliability are two constructs (from 4Ps and 7Ps marketing theory as well as SERVQUAL model) that are essential in marketing information resources to library users.

Research by Shehu (2015) indicated that over 60 - 70% of the respondents involved in that study indicated that most of the services were marketed by libraries. The most popular service that was heavily marketed as indicated by them was television viewing servicing, with Kasim Ibrahim Library (KIL) respondents indicating a 60 (92%) response score along with other institutions like Kaduna Polytechnic, and College of Education (COE), Gidan Waya. Responses from the Nigerian Institute of Transport Technology, Zaria (NITT) and COE, Gidan Waya hinted at the absence of marketing some essential services, namely indexing, abstracting, exhibition, reservation and translation services.

These findings symbolize the critical need for current information by users in order to be aware of the happenings around them. By implication, it means that there are services that are not marketed in some of the libraries like the NITT, COE Gidanwaya, and The Nigerian College of Aviation Technology, Zaria libraries. This may be because of their size and the types of clients they serve. The majority of libraries need to work hard to enhance the affected services and be educated on how to enhance the use of the library resources and services by their users.

The findings of the present study also agree with Polger and Okamoto (2012), who pointed out that some of the services that are pertinent to information resources and services marketing to users, especially a graduate student is: e-mail alerts that inform students when new articles are published in their research area, interlibrary loan, document delivery, specialist databases and

quiet reading areas and study carrels. The findings are also supported by Kumar (2014)and Kopperundevi (2013),who noted that the services for marketing in the library consist of a news bulletin of new journal articles, bibliographic lists, photocopying services, selective dissemination of information (SDI), reference services, translation services, Current awareness Services, (CAS), internet services and inter library loan services, scanning services, CD/DVD based services, repository services and indexing and abstracting services.

Ashrafi-rizi and Kazempour (2012) reported that services are provided in the medical libraries in both printed and electronic formats, for example, the printed means are the distribution lists of new arrival books and other written documents, the Selective Dissemination of Resources (SDR), the books on circulation, such, as core books in different subjects and display of books and personal relations. E-resources refer to the internet, intranet, extranet, email, tele-text, video-text and fax. In a related development, the report from the Health Libraries Inc. and ALIA Health Libraries Australia (2013) indicated the various services provided by the health libraries to their numerous users. These include (Health Libraries Inc. and ALIA Health Libraries Australia 2013):

i.   Provision of essential information (books, e-resources, print journals and so on);
ii. Provision of support services (reprographic services, training, and document delivery services and so on);
iii. Provision of facilities (the library environment, computers and printers and so on); and
iv. Provision of expert assistance (help from library staff and so on).

A study by Kutu and Olajide (2018) indicated that the public libraries in South-West Nigeria marketed their information products and services and highlights that user education, lending information resources, school services and referral services were readily available.

In contrast, however, a study by Trtikova and Nemeckova (2012) explained that the library provided services that included the provision of library tours and training in using resources, the provision of information for the new students and enlightening them on how to write papers, theses and citations methods. Services may also include enlightening users to comply with research ethics, copyright law and how to avoid plagiarism in their academic writings. Other services/events consist of a semester course in support of Ph.D. students, seminars and presentations about advanced information retrieval methods, database usage and so on. Lucas (2011) states that marketing services include accommodating special research interests, such as archives or discipline-specific databases, collection development, free web-based internet sites,

library subscription-based online databases, Google Scholar, interlibrary loan and free databases, such as Pub Med, group sessions and student-based library instruction. This implies that current information is the most common service for marketing in medical libraries. The next section discusses awareness and use of the information services available in libraries.

6.9. An assessment of the awareness and the use of the information services available in libraries

The Research Question on this theme sought to assess the perception of students on the available services used which facilitate marketing of resources and services to library users in medical libraries. The 4Ps, 7Ps marketing theory and SERVQUAL model informed the research question. The 4Ps and 7Ps marketing mix theory (1981) demonstrated that products (information resources and services) are marketed to users for their effective use The SERVQUAL model also suggested that there should be reliability in the services provided to ensure their usefulness and relevance to users' needs. The marketing mix theories (4Ps, 7Ps and 4Cs) and SERVQUAL model, were appropriate because they have been adopted and used in much empirical research on marketing in library research, for examples being studies by Murugesan (2017) and Kiran (2010), Jarad (2020), Moqiseh and Kazerani and Shekofteh, (2020). The provision of services by libraries is because they are deemed to be essential and expected to be used in order for users to have their information needs satisfied. In addition, usage is the only way that the libraries can achieve their central aim of providing essential service and justifying the funds invested in them by the management of the university. Determining the use of the available services is an indication of their value but also that they have an active marketing programme of their library resources and services as well.

The data presented indicated that current information services along with exhibitions and displays of new resources (books, journals, and reference sources) were the services that most students appeared to be aware of and used in the medical libraries. Those who were aware of their availability but did not use them were 33 (12%) and 77 (28%) were not aware of their availability in the libraries at all. Thus, a majority were aware of and used current information services in the libraries. However, interlibrary loan is the service that students were least aware of and used, as indicated by 45(16%) of the respondents. The details are provided in Table in 5.6.10 in Chapter Five

It is essential to note that users need to become aware of available resources and services, as this would help them a great deal in maximizing their use and benefit from them in their studies. Interlibrary loan provides an avenue for the library to complement the information resources that are not internally available but can be found in other libraries. This is because no library can have or acquire all published resources globally. However, interlibrary loans will enable them to provide more service opportunities to satisfy their users' needs. These services are essential and the library needs to inform and create awareness about the availability of these critical services. Participants B pointed out that the library was trying to market all the information resources and services available to meet the needs of its users, as the number of the library's users had increased and spread across different disciplines offered by the faculty. With this development then, the library might not be able to meet all those needs. This implies that the medical libraries make every effort to market their services to their numerous users.

The libraries did not have a written policy document for marketing their resources and services, which may be the reason why some services, were not marketed to users. This was confirmed by one of the Participants when responding to the question as to whether their library was marketing their resources and services. This confirms that the medical libraries did not have written marketing policy documents and why a marketing information resource was not as efficient as it should be.

An understanding of user needs and the existence of policy documents will guide the nature of marketing information resources and services in each medical library from the resources, services, facilities, strategies, personnel involved, facilities and equipment to the evaluation process of the marketing and so on (Rao 2014). One of the participants commented that a marketing plan should be implemented by the library. For him, the library should ensure the full implementation of marketing practices. This suggests that a formal written marketing policy document is required to ensure the effective marketing of information resources and services to users.

Based on the results from the findings, it appears that the majority of the users are either not aware of a number of services in the library or they are aware, but do not use the services at all. It is possible that they do not have a need for these services or do not recognize the importance of such services because of poor marketing in the library Osinulu et al. (2018) reported that several studies have revealed librarians lack of knowledge of the marketing concept and its

practicability to the discipline of librarianship. Such variables also lead to low library patronage and under-utilizing library information resources, products and services. Mohammed (2019), writing on the marketing of library and information services in selected technical universities in Ghana, noted the librarian's lack of readiness and interest to practice marketing in the libraries. Lamba (2019) reported on:

  i. A lack of preparedness by the library to invest in marketing its products and services and absence of marketing strategy;

 ii. Presence of one digital promotional activity in the library;

iii. Absence of social platforms used by the library to market their products and services; and

iv. Lack of awareness in the existence of library's services and products.

The next section discusses accessibility of the information services in the libraries.

6.10 An assessment of the accessibility of the information services in the libraries

The Research Question on this theme sought to assess the opinions of the students on whether the services available were accessible or not. It is pertinent to note that services when effectively accessed will facilitate marketing resources and services in medical libraries. The 4Ps, 7Ps, 4Cs marketing theories and SERVQUAL model informed the research question. The 4Ps and 7Ps marketing theory suggested that products (information resources and services) are marketed with a view to making them accessible to users. The SERVQUAL model also suggested that services provided to users must be reliable in order to make them accessible and useful. The marketing mix theories and SERVQUAL model were appropriate because they have been adopted and used in much empirical research on marketing in library research. That is because library services ought to be accessible to users. That is why they exist. There are situations whereby some services exist in principle but in reality are not accessible to users for one reason or another.

The results of the current study show that current information services, exhibitions and displays of new resources (books, journals and reference sources), reference and information services, user education and reservation services are rated higher by students, as those services that are easily accessible in the libraries. Reservation services were acknowledged by only 63(23%) regarding availability, but were accessible to more than half (150 or 54%). Indexing and abstracting facilities and photocopying and printing are the least accessible services, as indicated by 104(38%) respondents.

Participant B stressed that officially there was no written document on marketing policy given that libraries are there for their users, without users there are no librarians. The productivity of a librarian can be seen based on the services he/she renders to his/her users. So, library staff must try as much as possible to 'sell' the information resources, to advertise the information resources to inform users that these collections of books based on their studied disciplines are available and so on. This shows that there is no written document guiding the conduct of marketing in the library. However, the library makes every effort to make its resources and services available to users.

Participants C added that the library newsletter, notice boards, flyers and display shelves were used in updating, sharing and displaying new resources, respectively. The library also worked hand in hand with the heads of department and deans to ensure that the library meets the needs of users. This confirms that medical libraries provide a variety of services to the users, such as a newsletter, a shelf for exhibition and display and notice boards that convey information to them. In addition, they are committed to improving the academic performance of the users.

From the findings, it is evidently clear that current information and exhibitions and displays of new information resources were the most accessible services, as indicated by the respondents. The findings also showed that the library was using various means to make sure that users were informed about the availability of these resources. This is supported by Smith (2011) in a work on the strategic marketing of library resources and services that library resources and services ought to be appropriate, so that when the target clients access and use their collections, it is an indication that the resources have been provided to fulfil the goals of the organization and the needs of academic departments. In contrast, however, studies by Kumar (2014) and Kopperundevi (2013) noted that the services for marketing in the library consisted of a news bulletin of new journal articles, bibliographic lists, photocopying services, reference services, selective dissemination of information (SDI), translation services, current awareness services (CAS), internet services and interlibrary loan services, scanning services, CD/DVD based services, repository services and indexing and abstracting services. Ekene, Agbo and Onyekweodiri (2016) in Nigeria revealed that medical libraries offered various services to their users, such as CAS, searching medical databases, reference services and reprographic services. Others were computerized literature searching, internet browsing and document delivery services. Billah (2015) on the marketing of the University Library in Dhaka, Bangladesh revealed that the library offered different services to its users, such as traditional services,

physical documents, , online services abstracting, subject bibliographies, pamphlets, catalogues, bibliographic services reprographic services, lending service. CAS and SDI services. The implication is that the services in the libraries are varied and wide ranging and made accessible to users. Section 6.11 below discusses the level of satisfaction with the services provided in the libraries.

6.11 Assessment of the level of satisfaction with the services provided in the libraries

The Research Question on this theme sought to solicit the opinions of the students in order to assess the extent of users' satisfaction with the library services provided in medical libraries. The 4Ps, 7Ps 4Cs marketing theory and SERVQUAL model informed the research question. The 4Ps, 7Ps marketing mix theory (1960) and (1981) emphasizes that products (information resources and services) available must be rendered to users to satisfy their needs. In a similar vein, the SERVQUAL model indicates that services (tangibles) need to be provided timorously in the library for the satisfaction of users. Mollel (2013) asserts that in order to meet their information needs efficiently, library and information services ought to be user-cantered. The objective of marketing here is to provide the right information to the right user at the right time. Moreover, marketing library and information services includes considering and meeting user expectations, individuality, priorities, responsiveness, relationship, quality of services, value added services and professional skills and competencies (Mollel 2013).The information gathered on satisfaction will also enable the library to justify the enormous funds invested in it and the support it receives from the management of the university.

Students were more satisfied with current information services than with any other services available in the libraries. This was indicated by 97 (35%) and 111 (40%) who were very satisfied and satisfied, respectively. This implies that other essential services may not be well marketed to the users. The students were most dissatisfied with photocopying and printing, library orientation and indexing/abstracting services available in the libraries. According to the 4Ps and 7Ps marketing mix theory, products (information resources and services) attract users to patronize the library. Likewise, in the SERVQUAL model, tangibles (physical existence of certain services) attract users to the library. Hence, the findings of the study confirmed that products and tangibles constructs are essential in marketing information resources and services in the library.

The current study differs from the findings of a study conducted by Tiemo and Ateboh (2016) in Nigeria, which revealed that users were contented with lending services, longer hours of internet services and renewal of library resources. Research conducted by Mairaj and Naseer (2013) in Pakistan indicated that Punjab Institute of Cardiology library users were satisfied with the reference and circulation services, library resources, organization, library space and hours, staff attitudes, cooling and heating, furniture and environment. McKeown, Konrad, McTavish and Boyce (2017) in their study reported that hospital staff were satisfied with the quality of the literature search results and service those librarians at London Health Sciences Centre provided. This implies that libraries have numerous services they offer to fulfil the needs of their respective users. The next section discusses the opinion of students on the level of satisfaction with library services generally.

6.12 An assessment of student's opinion on the level of satisfaction with library services

The findings indicate that 208(75%) students acknowledged that the services provided by the libraries met their information needs. Only 69(25%) of their needs were not met by the medical libraries. This opinion was supported by the heads of medical libraries noting that some of the strategies the library employed in ensuring that the information needed was provided included meeting with the faculty staff in connection with the needs of the faculty organizing seminars on the importance of library information resources and training users on how to use some information and communication technology (ICT) facilities that are difficult to handle and so on, as well as inviting the faculty to attend the seminars were other strategies. This shows that the library uses varied strategies, such as seminars, to inform users of its numerous resources and services. This view is supported by Bamigbola (2013), who indicated that the mission of any library is to fulfil the various information needs of users.

Talati and Bhatt (2016) expressed similar sentiment in their research on an effective marketing strategy at the institute of Law Nirma University, India (ILNU). The results indicate that the majority of respondents were contented with the services provided. Amina and Nwanne (2015) reported on their research on the challenges librarians encounter in the use of social media for promoting library and information resources and services in Nigerian university libraries. The study found that library and information services and resources ought to fulfil the need of the clients. Notwithstanding, the degree to which library services fulfil the needs of the clients will be controlled by the extent to which the clients know about such resources and services. Ogola

and Otike (2011) opined that marketing is the process that is concerned with careful planning that entails a breakdown of the clients' needs and methods of rewarding/satisfying those needs.

Aderibigbe (2015) stated that marketing entails understanding the library's aims and investigating the market's needs and the library's ability to provide those needs. It also involves promoting the library and its services and attracting users. It entails the process of identifying user's information needs. The process of knowing the users' needs involves a proper market survey and must be guided by the marketing objectives/goals of the library. In contrast, however, a study by Odine (2011) on marketing academic libraries in Niger state, Nigeria revealed that the libraries did not provide many services. There had been a lack of funds, the absence of core facilities and the librarians were not willing to market their resources and services. The implication is that a gap in the libraries' services existed and users were not fully satisfied with the services offered. Section 6.13 below discusses the facilities available for marketing the available information resources and services of the libraries.

6.13 An assessment of the facilities available for marketing the available information services of the libraries

The Research Question on this theme sought to solicit the opinions of students and heads of medical libraries in order to assess the facilities that help students to find out about information resources and services in the medical libraries. This is because a good and conducive environment is needed in order to market library services effectively. Likewise, to market library resources librarians ought to provide a comfortable atmosphere for reading and learning (Odine 2011). The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model were proven to be adequate in responding to the study question. This is because the theories have been adopted and used in much empirical research on marketing library research. An example is the research undertaken by Shafiq, Bhatti and Naeem (2020) and Jarad (2020).The 4Ps,7Ps and 4Cs marketing mix theory of (1960) and (1981) noted that a place or convenience may refer to a location where services are received, such as a physical central library, branch libraries and virtual or electronic access (Samanian and Khosropanah 2016). Similarly, the SERVQUAL model refers to the tangibles (resources and facilities) as the available facilities (computers, printers, the internet among others) needed in marketing information resources and services to users.

The facilities may cut across conventional and technology-driven facilities that facilitate access to information resources and services. In other words, facilities may mean anything from a comfortable reading space, a well-ventilated building and air conditioning, seats, to a stable network facility and so on (Murugesan 2017, Kumar 2017, Bhardwaj and Jain 2016and Khanchandani and Hasan 2016). Their responses were drawn from both the medical students and heads of the medical libraries to see if they had similar opinions or not.

The findings show that the only platform considered most effective for marketing the available information resources and services of the libraries, as indicated in Table 5.6.15. Chapter Five are notice boards (207 or 75% of respondents). Close to half or 140 (51%) students were of the view that they used newspapers and magazines in the libraries. In the hierarchy of available facilities is the library websites by 129 (47%) followed by leaflets and posters (106 or 38%). The least available platform considered for marketing available information resources and services of the libraries is the radio programme, as indicated by 41 (15%) respondents.

Furthermore, the Participants in their opinion about the facilities for marketing information resources and services in the library indicated that library facilities were available for marketing of information resources and services. Participant D noted that the library used facilities, such as notice boards, to communicate vital information about the library and its resources. The library also used the contacts of the students in WhatsApp accounts or student e-mails, bulletins, newspapers and magazines to notify the users of the developments in terms of new resources, services and any other vital information. This clearly shows that the medical libraries used a range of facilities like notice boards, social media and the like to market their resources and services to users.

Participant A revealed that the library had a specific location where books, posters and banners were placed for marketing purposes. They sensitized users during what they referred to as 'sensitization week' on developments in the library like new arrivals of resources, services and much more. The librarians attended meetings with faculty members and used this forum to promote library services, such as printing and the distribution of posters and circulating of handbills and the like. This indicates that medical libraries do market and inform the users of anything new that comes in or has been acquired by the library.

This implies that the majority of the respondents believed that notice boards are the most used facility for the dissemination of information about resources in the library. Their position was

also supported by one of the heads of medical libraries, who explicitly indicated that they used notice boards to inform the users of the library about resources especially new arrivals as well as other relevant information that is of significance to users. This therefore means that notice boards are an essential medium through which users are informed of the happenings in the library. This corroborates the findings of Enweani (2018) in the study of marketing strategies in hospital libraries in Nigeria who pointed out that notice boards were used to keep library patrons informed about the services offered by the university library. It helps to market the library to the users. It has a self-explanation benefit. In contrast, regarding the report of facilities for marketing in this study, Murugesan (2017), Kumar (2017), Bhardwaj and Jain (2016) and Khanchandani and Hasan (2016) found that libraries offered facilities and services, namely:

i. Automation services;
ii. Air conditioning facility;
iii. Web OPAC, and RFID (radio frequency identification) facilities;
iv. Library portal and library website;
v. E-mail services;
vi. Library online survey;
vii. Social network site such as Face book, Twitter, Flicker, YouTube, Blogs, Wikis, RSS, Web 2.0;
viii. Webcasts and web announcements;
ix. Cell phone facilities are useful tools/facilities resources and services marketing of the academic libraries; and
x. Online advertising.

Opeyemi, Akinade and Ojo (2014) found that old and conventional service delivery methods, such as face-to-face and notice board approach, also topped the list of service delivery methods. Khanchandani and Hasan (2016) further reiterated that the library had installed RFID facility for users. The facility will assist clients in the simple loaning of books, self-check-out through a kiosk or can self-check-in utilizing a book drop box on premises open 24/7 alongside the reading facilities. Others were relevant furniture; quality lightening and proper signage to encourage and expand readership in the library. Patil and Pradhan (2014): identified the following infrastructural facilities for marketing information resources and services. These include

i. Frequent meetings between users and library staff;

ii. Student internship programme students should be given the opportunity to work in the library;

iii. Reading hall facility should be available 24 hours a day;

iv. Creating digital resources;

v. Online access to e-resources should be made available through a library gateway portal;

vi. Good bandwidth and internet access facility should be made available with Wi-Fi connectivity to all users on the campus; and

vii. Creation of a compact storage section to accommodate growing physical collections.

This means that libraries should have different facilities and ideas for the effective marketing of information resources and services. The next section discusses the relationship between the age of students and marketing of information resources and services in medical libraries.

6.14. An assessment of the relationship between the age of students and marketing of information resources

The result of the investigation did not reveal that the students' ages were significantly correlated with patronage of the information resources of the libraries overall ($p > 0.05$), but rather the patronage of the individual marketing information resources by the students were found to be significantly correlated ($p < 0.05$) on a pair wise basis. For example, patronage of notice boards (V2) was highly correlated with the use of radio programme (V4), the university notice system (V5), newspapers and magazines (V8), leaflets and posters (V10) and other marketing information resources tools of the libraries. Students' patronage of the library websites (V9) was significantly correlated with that of leaflets and posters (V10) along with other tools for marketing information resources of the libraries. Thus, there is strong correlation between the use of facilities and marketing of information resources and services, as indicated by the study's findings. Section 6.15 below discusses the usefulness of the marketing facilities/tools in the libraries.

6.15 An assessment of the usefulness of the marketing facilities/tools in the libraries

The Research Question on this theme sought to solicit the opinions of the students in order to assess the usefulness of the marketing facilities adopted for informing them about the library

resources and services in order to further facilitate marketing resources and services in medical libraries. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. According to 7Ps and 4Cs marketing mix theory (1960) and (1981) physical evidence or convenience refers to the environment in which the library and information services are delivered and the things that make service delivery and communication easier. In addition, tangible constructs as per SERVQUAL model (1985) means the presence of physical facilities, equipment, personnel and materials for communication in the library (Kiran 2010). This shows that place (environment) and tangibles (facilities) are two constructs that are essential in marketing information resources and services to library users.

In this section, the researcher wanted to find out from the respondents how effective were the available facilities in the medical libraries in informing or conveying information about the information resources and services available to users. Osinulu et al. (2018) opined that for the libraries to attain competitive advantage in marketing, they need to ensure higher levels accessibility to resources and services in the format desired by the users, ease of location, competent library staff, access to ICT applications, attractive library equipment and facilities, clean and noise-free environment, adequate and ergonomic chairs and tables, clean toilet facilities, illumination and good ventilation, among others. Odine (2011) adds that the techniques for effective marketing of information resources and services depend on the provision of a favourable atmosphere for users by libraries.

The notice board, library website, newspapers and social media are facilities that were highlighted by respondents. Platforms like SMS alerts, leaflets and posters, among others, were not seen as useful for marketing available information resources and services of such libraries.

Therefore, the opinions of the students suggested that the use of notice boards and library websites along with newspapers as well as social media had a significant impact on marketing the quality information resources and services. The findings showed that notice boards and library websites are the most useful facilities, as indicated by the majority of the respondents. Radio programmes are the least effective facility used for marketing medical libraries. This finding is consistent with the opinion of Aloysius, Awa and Aquaisua (2019) that libraries worldwide used websites to market resources and services. It is one of the quickest means to inform users of the current resources and services in the library. In contrast, however, Abbas, Khalid, and Hashmi's (2017) study revealed that University library websites were not properly developed as a marketing tool. The findings also showed that the websites lacked information

and did not have a collaborative interface with users, so that they could interact directly with users and receive feedback for more improvement in the library's technological development.

Therefore, it can be deduced that all the medical libraries have relatively good resources available conducive for reading and research and learning and particularly seating capacity. It was observed that the libraries could accommodate five hundred, (500-50), a little above two hundred (206-250), one hundred and ten (110-200) and forty (40-50), students respectively. Not all requirements for a conducive user environment in the libraries were present. This is consistent with the opinion of Odine (2011) and Osinulu et al. (2018), who assert that library settings ought to be better. For instance, there ought to be enough reading space, seats, tables, restrooms and proper ventilation, orderly and noise-free library environments, clean toilet facilities, lighting, training programmes, applications and services, the use of highly innovative library technology and innovative marketing strategies. The next section discusses the awareness of marketing activity in the library.

6.16 An assessment of students' awareness of marketing activity in the library

The student participants were asked whether they were aware of any marketing activity in the library. The responses to this provided background information on the level of marketing awareness of the students.

The findings showed that most of the respondents (266 or 96%) indicated that they were unaware of any marketing activity in the library, while 11 (4%) indicated that they were fully aware. This could be attributed to a lack of commitment to marketing and promoting library information resources and services on the part of the libraries involved in the study or flawed marketing strategies. This could perhaps be the reason why a number of essential resources and services of the library were not used by students. This is consistent with the view of Kumar (2017), who noted that the significance of marketing in academic libraries was necessary because users seemed to lack ICT skills to search relevant information, unaware of non-print library materials and are discontented with available library collections. Lamba (2019:155) reported that other challenges of marketing in medical libraries are:

i. Lack of preparedness by the library to invest in marketing its products and services and absence of marketing strategy;

ii. Presence of one single digital promotional activity in the library;

iii. Absence of social platforms used by the library to market their products and services; and

iv. Lack of awareness in the existence of library's services and product.

The next section discusses the strategies employed for marketing information resources and services in the medical libraries.

6.17 An assessment of strategies employed for marketing information resources and services in the medical libraries.

The Research Question on this theme sought to assess the marketing strategies and techniques that are currently employed to facilitate the marketing of resources and services in medical libraries in the North-Western geopolitical zone of Nigeria. The question was asked to students and the heads of medical libraries. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model informed the research question. Both 4Ps, 7ps, 4Cs marketing mix theory and SERVQUAL model were found to be sufficient in responding to the research question. This is because the theories have been adopted and used in much empirical research on marketing in library research (see, for examples, studies by Okon and Umoh2014, Somaratna and Peiris 2011, Jarad 2020 and Moqiseh et al. 2020). According to the 4Ps, 7Ps, 4Cs marketing mix theory, promotion/communication involves communication between the marketer/ librarians and users to introduce and promote the product (resources and services). Promotion/communication tools include newspapers, magazines, radio and television and online facilities, such as social media (Mollel 2013). Similarly, the SERVQUAL model noted that empathy is the capability to be compassionate and paying attention to the aspirations of the individual customers (Kiran 2010).

The second Research Question of the study examined the strategies/ techniques deployed for marketing information resources and services in the medical libraries and their effectiveness. Strategies/techniques are the most important concepts in marketing and are an integral part of promotion. Promotion/communication is an essential construct in the 4Ps, 7Ps and 4Csmarketing theory. Service marketing mix, as highlighted by Van Vliet (2011) is also called the 7Ps model or the 7Ps by Booms and Bitner (1981). The service marketing mix approach broadens the original marketing mix model from four to four Cs and to seven components which include product, price, place, promotion, physical evidence, process and people and customer, communication, cost and convenience as well. The service marketing mix is designed to satisfy user needs efficiently in a competitive marketplace (Yarimoglu 2014).

Among the strategies assessed for the effective marketing of the information resources and services available in the medical libraries were the use of advertisements, exhibitions and displays of information resources available in the libraries and the use of notice boards and social media. Others were user education, organization of public lectures, user orientation programmes and the use of posters and pamphlets. The strategies the students were mostly aware of are the use of advertisements. Some (234 or 85%) students agreed they were aware of library services via advertisements. Exhibitions and displays and user orientation programmes were the least recognized strategies acknowledged by them (191 or 69%).

Concurring, Bello (2015) in research with a focus on marketing information resources in Nigeria, strategies and challenges, explained that the purpose of advertising is to help in developing client relationships by presenting an essential product to the client. Advertising can be done in any form of mass media, such as newspaper and television, radio as well as on the social network. The purpose of advertising has to be clear for the advertiser, regardless of whether the advertising is designed to notify or remind. Even though advertising is expensive, however, it has the advantage of instant reaching of a large and diverse population of users. The responses are aligned with the opinion of Adegoke (2015) who defined advertisement as any paid sort of non-individual description and promotion of ideas, products and services by an identified sponsor. Advertisement is a game-changing strategy for marketing library and information services to the general public and those who use them. Adegoke (2015) and Shehu (2015) pointed out that promotion is the means for notifying users about what can be done and what can be accomplished. The benefits of promoting library services include effective usage of library assets, expanded support, improved significance of library organization, altering their opinions and views about the library and training of users.

Similarly, Mollel (2013) opined that advertising in the library environment is intended to improve user awareness, increase the use of services and promote the library's image. Advertising can be planned to increase awareness in the products, attract the attention of readers, and lead user to decide to use the products with satisfaction. This could be done through in-house newsletters, billboards, advertisements, local press, displaying and posters, among others. On the other hand, Opeyemi et al. (2014) reported that sending bulk text messages to library users and repackaging information, among many others, are the highest marketing strategies used in the provision of services in academic libraries. Osinulu et al. (2018) reported that the use of books as products, user survey studies on marketing library services and products, and improved

borrowing privileges and interlibrary loan services are strategies that users appreciate, amongst many others. Similarly, Kutu and Olajide (2018) found that displays and exhibitions along with creation of a suitable environment are the major forms of promotional strategies adopted in the public library boards surveyed. It can be deduced that the use of books as products, interlibrary loan services user survey studies to market library services and products and improved borrowing privileges, etcetera are the prevalent strategies used.

Khanchandani and Hasan (2016) further reported that marketing strategies help acknowledge the goals of an organization and further mentioned some of the marketing strategies deployed in the library namely:

i.   Newspaper and magazine extract services: newspaper and magazine extract services are customized CAS (current awareness services) delivered to a senior officers of the institute in digital format via their regular email;

ii.   Discovery service: to have significance in research and expand the use particularly of e-resources, the main library has as newly bought into the EBSCOhost discovery service. This service has a unified index to web OPAC, institutional repository, e-prints and e-resources, such as databases, e-journal, books, standards and so forth. This joined index gives a search window facility to clients; and

iii. Technical talks concerning subscription databases: for making clients informed and thus amplifying the utilization of e-resources, regular technical workshops are prepared as a significant aspect of reaching to its clients by resource persons.

Potter (2012) rightly emphasized that segmentation involves first, figuring out how to split groups of individuals to whom you market and then creating separate value propositions for each of them. This essentially entails promoting the aspects of the library's services that most appeal to each of the multiple faces of the library that are important to each specific group.

Participant A reported that they had marketing strategies and that what the library did at the beginning of every academic session was to organize orientation for the new students. New students were trained on available library resources, services, operational hours and the code of conduct of the library. Furthermore, the library organizes a sequence of seminars and workshops for all library users on different topics, such as use of information and communication technology (ICT) and related tools, use of databases, reference sources and so on. These are ways in which

students are trained on how to use the library resources efficiently, particularly in certain critical areas requiring special training like access to library catalogues, databases and references.

Concurring, Martin-Yeboah, Alemna and Adjei (2018) noted that user education or orientation programmes in all study areas were common features or strategies used. Enweani (2018) on marketing strategies in a hospital library in Nigeria opined that library orientation generally arranged by the university library for new students serves as a feasible promotional tool for library products and services. Students were informed about the significance of the library, its resources and services in their academic success during the orientation programmes. Abdulsalami and and Salami (2013) and Bamigbola (2013)opined that for people's confidence in general to be completely won, librarians ought to carry along the public by organizing library orientation programmes, seminars and talks on the significance of exhibition and displays of information resources.

According to the Participants (C) the library markets its resources and services to users in the following manner. When the library acquires a new resource, they notify the community of the availability of such resources through notice boards. They also used shelves strategically positioned and dedicated for displays and exhibitions to display new arrivals of resources, such as journals, books or reference sources. It shows that notice boards and display shelves are some of the tools used as strategies for marketing of new resources and services in the library.

This response here corroborates the findings of Siddike, Munshi and Mahamud (2013) on marketing web-based academic library services in Bangladesh who reported that an aggregate of six libraries (33%) had a library notice board where information regarding the library happenings was communicated and placed. Enweani (2018) in the study of marketing strategies in hospital libraries in Nigeria noted that the notice board has a self-explanation benefit. It helps to market the library to users. It was also, used to keep library users up-to-date with the university library services provided. The notice board is usually placed in extremely visible locations where users can readily access collected information. In the same vein a research carried out by Okon and Umoh (2014) revealed that exhibitions can help to attract clients to accessible library and information resources. Book exhibitions can also be hosted at regular intervals within the school session or during Library Week. Library and information resources ought to be mounted at visible locations preferably in an access road outside the library building or near the entrance where it may be seen by users.

Runyon et al. (2013) pointed out that:

i. Displays are a great way to support library resources and programmes; interesting and unusual library books can be displayed or library services can be regularly presented to serve as a reminder of what the library offers;

ii. Displays can be used to advertise a specific library collection or to announce a new database or newly arrived books;

iii. The library can create a display of recent faculty publications, host a photo exhibition of a recent student organization event or tour, or put together a display of materials relevant to famous or important cases.

Kutu and Olajide (2018) revealed that the majority of respondents in their study agreed with the use of displays and exhibitions along with the creation of a conducive environment as the form of promotional strategies adopted by the public libraries board surveyed.

Participant A reported that library staffs often met with faculty members, who understood the curriculum and were familiar with different fields of academic research within the faculty of medicine. They then guided library staff in getting resources that met users' information needs. Thereafter, the library used selective dissemination of information (SDI) to notify users of new arrivals. This is a way of informing them of the availability of the new information resources in the library.

Yet, Participant C acknowledged that they had strategies for marketing information resources and services of the libraries, which users were aware of that attracted them to the library. The Current Awareness Services (CAS) was an example. In this strategy, the library tried to promote and provide newly acquired information resources that were relevant to the users' areas of interest. The library also used social media tools like Facebook, RSS feeds and WhatsApp to market information resources. One library used the student handbook to market their services. The handbook contained useful information about the library, as well as its resources. In addition, libraries used what they called a techno graphic notice board in which resources and services were harmonized and displayed to users. These were used by the libraries to inform users, especially faculty members of the new arrival of collections relevant to their various areas of professional activity. The library also selected the most relevant information resources to send to individual faculty members.

These findings aligned with the view of Abdulsalami and Dika (2019), who did a research on the utilization of social media services for current awareness provision to registered users of the Federal University Library, Lafia, Nigeria. The research described current awareness services as any print or online resources that provide users with periodic updates on the current information in their area of specialty. These resources include: journal tables of contents, online or print bulletins, online databases, RSS feeds from websites, citation indexes, saved databases searches and e-mail alerts. Similarly, Cabonero, Tindaan, Attaban and Manat (2019) opined that current awareness services are important library services for speedy and easy retrieval and circulation of information. It also helps in pursuing studies, fosters excellence and broadens user understanding in line with their interests. It also keeps users informed about current trends and developments within and outside the library.

Okite-Amughoro (2017) revealed that librarians and their users were using web 2.0 tools, such as social media, at different levels, which differed from one university to another. The most commonly used tools for marketing of their information resources and services, according to the findings, were Twitter, Instant Message, Facebook, Internet Forum, Academia.edu, LinkedIn, Blogs, YouTube, Pictures, RSS Feeds, Wikis, Message Board and Word Press. AlAwadhi and Al-Daihani (2019) noted that social media have the potential to raise awareness of academic libraries and their services, resources, activities, events and new arrivals. In addition, social media marketing can enable libraries to develop networks that allow users and non-users to interact and communicate their information needs among users. The findings also confirmed the view of Jain (2013), Muruli and Gireesh (2013) and Alkindi and Al-Suqri (2013), who reported that social media can be efficiently incorporated at each stage of library marketing. Other studies that expressed similar sentiment include: Mahesh and Gupta (2013:387) and Lamba (2019) in India; Shu and Zhiping (2013) in China; Koh and Wee Pin (2013) in Singapore; Kaur (2013) in Malaysia and Ameen (2013) in Pakistan. These studies also highlighted the relevance of social media and other online platforms in providing users with library and information services.

Thus, the 4Ps, 7Ps and 4Cs marketing mix theory confirms that using marketing strategies will improve the use of library resources and services (Mollel 2013). Similarly, in SERVQUAL empathy constructs refers to the capability of the library to pay attention to the aspirations of individual users by using different strategies that will facilitate the efficient provision of these resources and services (Kiran 2010). Therefore, promotion and empathy constructs play a vital role in the effective marketing of information resources and services in medical libraries. The

next section discusses the factors adversely affecting the effective marketing of information resources and services in the libraries.

6.18 An assessment of the factors adversely affecting the effective marketing of information resources and services in the libraries

The Research Question on this theme sought to assess what factors adversely affect the effective marketing of information resources and services to users in medical libraries in the North-Western geopolitical zone of Nigeria. The question was asked of both students and the heads of medical libraries. The 4Ps, 7Ps, 4Csmarketing theory and SERVQUAL model informed the research question. The 4Ps, 7Ps, 4Cs marketing mix theory and SERVQUAL model are appropriate and have been used in much empirical research on marketing of library research, examples being in the research of Mohammed (2019) and Somatrana and Peiris (2011), Jarad (2020) and Moqiseh et al. (2020), among others. According to 7Ps marketing mix theory (1981), process refers to the procedures, mechanisms and flow of activities by which the library delivers resources and services to its target users. It includes the logistics and the marketing plan, as well as all other steps that will ensure effective and successful marketing of information resources and services in the library (Busariet al.2015 and Mohammad 2015). Similarly, SERVQUAL model noted that responsiveness is the willingness to help and the ability to give prompt library services to the customers (Kiran 2010). What this finding affirmed is that the process and responsiveness (constructs) from the 7Ps marketing mix theory and SERVQUAL model are essential in marketing information resources and services of the medical libraries.

The third Research Question investigated the challenges medical libraries were facing regarding the marketing of information resources and services. Knowing what these problems or challenges are could assist in making the appropriate recommendations that will address the existing challenges. The participants in the study were asked what problems they experienced with marketing library information resources and services. The responses to this question were derived from both heads of medical libraries and the medical students in the four medical libraries. Among the factors assessed here are the levels of information resources in the libraries, their perceived currency and the tools available for their marketing and the general provisions in the libraries that could improve marketing of information resources and services, among others.

The adverse factor most militating against the effective marketing of information resources and services in the medical libraries is the inadequacy of information resources. This factor was rated

by 262 (95%) of the students. This was supported by all the participants interviewed, who indicated that library books were expensive and these days purchasing some of these resources required a large sum of money from the library. In particular, medical books and online journals had been far more expensive than non-medical books in other subject areas. Online journals were also expensive to subscribe to. This indicates that the inadequacy of resources and services is attributed to financial constraints due to budget cuts during budget defense and the absence of support from National Assembly members are some of the major challenges that hindered marketing of information resources and services in medical libraries.

These findings are consistent with those of Ramjawan (2011), who reported that the absence of available needed resources by researchers and time limitations were the most common hindrances they experienced in seeking for information in the library. Patil and Pradhan (2014) in their study stated that there was an absence of financially related budgetary provisions in libraries. Consistently, the budget is not increased proportionally. This finding also corresponds with the view of Thu and Lixin (2018), who concluded that a good number of libraries were entirely in need of funds while some others had inadequate funds to make provisions for marketing. A few libraries looked for funds from grants or affiliation. Accordingly, libraries ought to have an independent source of funds for marketing separate from the overall budget. Therefore, agencies responsible for budget allocation to libraries have a duty to allocate funds explicitly for marketing because of the significant role it plays. The findings are also associated with those of Olorunfemi and Ipadeola (2018) whose study revealed that the issues facing the efficient marketing of library and information services were insufficient funds, lack of facilities to market library services, the absence of a marketing policy, poor access to information technology, the absence of media access to market academic library services, the absence of marketing training and efficient communication among the library staff.

Similarly, the report from the Health Libraries Inc. and ALIA Health Libraries Australia (2013) indicated that the challenges facing health libraries and other special libraries include decreased budget, staffing and space. Abdulsalami and Salami (2013) in their research revealed that the majority(17 or 23%) of the College librarians responses, when they were asked about the problems or the challenges of marketing library and information services, indicated that inadequate funding of their libraries was a major challenge, as well as of polytechnic libraries, which led to inadequate information resources (11 or 21%) respondent, lack of network among libraries (11 or 21%), inadequate information resources (7 or 14%), inadequate displays and

exhibitions (6 or 11%) and inadequate publicity and advertisements. Ramadevi (2018) concluded that academic library staff were confronted with various challenges in marketing library resources and services, namely providing necessary information, varied clientele, multiple demands and expectations, costs experienced for marketing the absence of requisite knowledge of the concept of marketing and lack of support from the library management.

Okon and Umoh (2014) noted that marketing information has been declining. Aside from university library managements not having given marketing the needed attention, inadequate funding from government has added to the poor state of library marketing in Nigerian university libraries today. Due to inadequate funding most Nigerian university libraries have found it difficult to maintain regular subscriptions to different databases. Print resources are sometimes too out of date to be useful in the present dispensation, while available electronic resources are too few to deal with the growing number of clients. Moreover, lack of regular power supply is a problem. Clearly with this situation, hardly any serious marketing has occurred. In related developments, Bello (2015), Amina and Nwanne (2015), Aderibigbe (2015), Aderibigbe and Farouk (2017) and Billah (2015) assert that the most significant challenge confronting the marketing of information resources in Nigeria is finance.

A study by Hussain (2018) on the awareness of web 2.0 technology in academic libraries from an Islamabad perspective revealed that time consumption and fear of the misuse of personal information by using web 2.0 technologies in library services were some of the major challenges. Similarly, Opeyemi et al. (2014) emphasize that challenges, such as inadequate skills among library and information professionals' and lack of funds, among others, pose risks to the efficient use of marketing strategies in the provision of library services.

Other factors acknowledged as adversely affecting marketing of information resources and services available in the libraries were lack of current information resources acknowledged by 191(69%) respondents and lack of some essential equipment like computers and their peripherals(182 or 66%). However, lack of awareness of information resources and services was the least among the factors that adversely affected marketing of information resources and services in medical libraries (116 or 42%) (Refer to Table 5. 8.18 in Chapter Five for details).

This finding is aligned with that of Igwela and Owate (2016) that difficulties of obtaining books and journals from overseas are due to elevated foreign exchange rates and decreased budgets. This has discouraged many public and special libraries from obtaining up to date and pertinent

texts to help their parent institutions' educational programmes. Thus, owing to insufficient financing most libraries' attempts to provide contemporary information services are thwarted the presence of the above-mentioned issues.

This development was also confirmed by the researcher's observation. The researcher discovered that the library had only eight computers in one of the medical libraries visited, which is insufficient given the number of medical students enrolled there. These computers had also not been connected to a network. The researcher also observed that the libraries involved in the study had very few printers and photocopiers, for example, one (1) photocopier and one (1) printer in one of the libraries, one (1) printer only in another library, two (2) printers and two (2) photocopiers in the other library and, finally, one (1) printer and one (1) photocopier, respectively. The number of printers and photocopiers was inadequate, considering the demands and the number of users in each library. Another participant further explained that the library might sometimes have enough computers for users, but the computers might not be in good working order. This means that maintenance of ICT equipment is a challenge for marketing in medical libraries.

The finding agreed with those of Ternenge and Kashimana (2019), who found that insufficient computers in the library and poor internet connectivity, erratic power supply and limited access to subscribed titles that made it difficult for users to access and use resources. There was the absence of assistance from the library staff and a lack of relevant e-resources in various disciplines as well, which were the issues faced by students while accessing and using electronic information resources for research in the library. Thu and Lixin (2018) supported the idea that the challenges of marketing in the libraries included insufficient and the complete absence of ICT and marketing skills. Therefore, librarians must stay abreast of ICT developments.

Bello (2015) opined that a large number of libraries lack Internet access, which users might utilize to access other resources. Users that visit the library frequently and are unable to find what they want will become discouraged and may not return to the library. These and a lot more issues, for example, persistent power failure, poor public conveniences, infrastructural deficit and uncompromising rules and regulations can add to poor patronage of the libraries and consequently poor utilization of information resources. This was the finding of Miracle (2018) whose study reveals that the absence of or unreliable internet connectivity has been a major barrier for students for accessing available electronic resources in the libraries in the study. The

findings agreed with those of Ternenge and Kashimana (2019), who found that insufficient computers in the library, poor internet connectivity, limited subscription titles, erratic power supply, difficulty with accessing and use of e-resources, lack of relevant e-resources in various disciplines as well as the absence of assistance from the library were the issues faced by students while accessing and using electronic information resources for research in the library.

Another finding of the study was the problem of the negative attitude exhibited by some of the library personnel towards library users, their attitudes to work and the way some heads of departments or deans responded to issues concerning the information needs of faculties and departments. This indicates that the negative attitudes of some library staff and lack of cooperation from deans of faculties and heads of department are some of the challenges of marketing in medical libraries.

The current findings concurred with those of Bello's study (2015), which found that library staff attitude to work is a big challenge to the successful marketing of information resources and services in Nigeria. The greater number of library employees barely see anything important in being considerate at work. Other than instances of absenteeism, some of them barely take a seat at their work stations. On occasions, personal interactions between staff members can proceed while clients wait for their consideration. This frame of mind makes a bad impression on the clients to the extent that they may not go to the library. All the time, the library staff ought to relate to and acknowledge the importance of the clients. In fact, several library staff for one reason or another do not demonstrate an inspirational attitude to clients accordingly, causing them to feel unmotivated to return to the library. This is also aligned with the findings of Amir, Zarei and Zeinolabedini (2018), who revealed that one of the reasons why Tehran public libraries did not pay attention to marketing mix elements was because of the entrenched ignorance and lack of knowledge of managers and librarians about both the concepts and key content of marketing. The findings of the present study confirmed the absence of facilities for marketing of information resources and services. This was indicated by157 (57%) of the total respondents.

This finding is supported by Edewor, et al. (2016), Lamptey (2016), Aderibigbe and Farouk (2017) and Igwela and Owate (2016), who all discovered that the following affect successful marketing:

    i.   Not knowing what to market;

    ii.   The dearth of facilities/tools; such as irregular power supply and lack of functional

computers with internet connectivity;

iii. Shortage of funds;

iv. The absence of a marketing policy;

v. Low computer literacy among library staff;

vi. Dearth of library materials to market; and

vii. Restricted access to media.

Potter (2012) stressed that many of the challenges libraries have in marketing themselves arise from the fact that many people really do not understand what we are doing.

Equally, the findings of the present study showed that another challenge, as raised by Participant (C) on the marketing challenges was that library staff did not have enough time to market library activities because they were overburdened with so many activities as well as network setbacks. This shows that lack of time and network problems hindered marketing of information resources and services in medical libraries.

The findings here are consistent with those of Ramadevi (2018) who concluded that academic library staff are confronted with various challenges in marketing library resources and services, namely providing necessary information, varied clientele, multiple demands and expectations, costs experienced for marketing, the absence of requisite knowledge of the concept of marketing and lack of support from the library management. Billah (2015) in a study on marketing the library and information products of Dhaka University Library, Bangladesh found that some of the major challenges in marketing were the absence of administrative responsibility, awareness and adoption policy of implementation of marketing strategy and principle, the absence of clear vision, purpose and role to ensure maximum and optimal use of Dhaka University resources and the execution of marketing programmes, bureaucracy and administrative complexity. Section 6.19 below discusses the measures needed for facilitating the marketing of information resources and services in the medical libraries.

6.19 An assessment of the measures needed for facilitating marketing of information resources and services in the medical libraries

The Research Question on this theme sought to assess what measures can be employed to facilitate the effective marketing of resources and services to users in medical libraries in the North-West Nigeria. The question was put to both students and the heads of medical libraries.

The 4Ps, 7Ps marketing mix theory and SERVQUAL model informed the research question. The7Ps marketing mix theory noted that the products (information resources and services) are a component used as a measure that facilitates effective marketing in medical libraries. Similarly, the SERVQUAL model is adequate for assessing service quality in different fields. It is therefore clear that products, promotion or communication constructs of 4Ps, 7Ps, 4Cs marketing theory and SERVQUAL model constructs are significant in marketing information resources and services in medical libraries.

The fourth Research Question investigated the measures to be explored to facilitate marketing of information resources and services in medical libraries. It is not sufficient to only establish what the problems or the challenges are, but it is also necessary to find the way forward for such challenges to be overcome. Respondents were provided with a list of choices and were able to indicate as many answers as they wanted. Measures suggested by them included better provision of required information resources. This would imply identifying the needs of users before acquiring materials for the library as well as adequate funding to purchase materials. Other measures included the creation of awareness, among users, the appointment of professionally competent library personnel and ensuring that services, including Internet were stable along with uninterrupted power supply.

The measure most agreed upon by students for improving marketing of information resources and services to users of the medical libraries is better provision of required information resources. In Table 5.9.19 in Chapter Five, this measure was rated by 148 (53%) of the students. This was followed by the appointment of more staff to handle library activities (124 or (45%). Next in the hierarchy was the provision of alternative power supply and better provision of current information resources (116 or 42%). However, creating awareness among library users as to what the library has to offer was the measure with the least support (79 or 29%) for improving marketing of information resources and services. This view was supported by all the heads of libraries, who agreed that improved financing is a major area to be exploited in improving the available resources and services of the libraries. According to Participant C of the respondents in the interview, the library is doing its best to find ways to obtain more revenue to address some of its challenges. This means that libraries are exploring and developing ways of generating revenue that will enable them to address some of their challenges in providing information resources and services.

This is aligned with the view of Ifijeh, Ogbomo and Ifijeh (2018) in their work on the utilization of academic library resources for research productivity, suggesting that the university management must significantly increase its budget to procure library resources, including books, journals, theses, periodicals, etcetera (both print and electronic copies) in order to have a significant impact on the research efficiency of academics. The procurement and availability of more current library resources by the university management will directly affect the research efficiency of academics. Okon and Umoh (2014) contend that for Nigerian university libraries to utilize marketing to their advantage and that of their clients, essential facilities and infrastructure must be set up. Human and material resources must be assembled to lift marketing to a superior position. This finding was supported by those of Lawrence's study (2015) that found that libraries and librarians ought to determine a means of securing finance to address the problem of inadequate funds by making relevant contributions to the institutions they served.

This is supported by Aderibigbe (2015), who proffered the following solutions for dealing with the challenges of marketing in the library:

i. Proper support from the parent institutions in relation to the provision of adequate funds, funding that will empower the library to function efficiently and to obtain resources and services that are pertinent;

ii. Enough funding to organize more conferences, seminars, orientation programmes, talk shows, provision of satisfactory services that will attract the maximum attention of the clients and also serve as a positive measure to attract the attention of clients at large;

iii. Provision of ICT facilities;

iv. Organize training of staff on how to be active in providing real and well-organized services to these clients; and

v. Provision of regular and stable power supply ought to be maintained.

Similarly, the Health Libraries Inc. and ALIA Health Libraries Australia (2013) report indicates that library users believed that improvements should be made in technology, e-resources, print resources, staff hours and alternative ways of accessing library services and physical space. Participants D considered the number of staff to be a major challenge in marketing library information resources and services. This indicates the need for adequate and relevant information resources in libraries and more qualified staff are required to attend to numerous users.

Different marketing strategies must be harmonized, and a strong marketing team must be established. A full-time marketing librarian should be appointed to collaborate with other members of the marketing committee, who should be drawn from different faculties, schools, departments, sections, and units. This will ensure that the university community's diversity is always considered, allowing the repository to be accepted by everybody.

Martin-Yeboah, Alemna and Adje (2018) recommend that library managers must harmonize different marketing strategies and a strong marketing team should be established. A full-time marketing librarian should be appointed to collaborate with other members of the marketing committee whose composition should be drawn from different units, sections, departments, schools and faculties. This will ensure that the university community diversity is always considered allowing the repository to be accepted by everybody. This response is in line with Mohammed (2019), who suggested that the library management of selected universities ought to consider expanding their library collection with relevant resources, but in addition, they should find a way to employ professional marketers and improve the skills and competencies of the existing staff by organizing training, workshops and seminars. In a related development, Enweani (2018) on the marketing strategies in hospital libraries in Nigeria suggested that librarians should be innovative and pragmatic to ensure that library resources and services are marketed to all existing and future users. Also, social media should be used as a way of marketing library resources and services. Moreover, librarians should be encouraged to successfully develop marketing skills and competencies to market their library resources and services successfully.

The findings of this study also indicated other measures that the libraries could adopt to improve the resources and their marketing. According to Participants A soliciting support from the alumni associations and donor agencies should be considered. This implies that soliciting support from alumni associations, donor agencies and publishers is one of the measures that could be adopted by the medical library to address some of their challenges.

This is aligned with the views of Garoufallou, Siatri, Zafeiriou and Balampanidou (2012), Ramadevi (2018), Anafo (2014), Bello (2015) and Amina and Nwanne (2015), who believed that the library could acquire sufficient funds through fund raising activities or engaging the managers in seeking funds from philanthropists, both local and international organizations, for

library support. This is because funds must be sufficient and timorously given to the university management, which will assist in addressing the challenges.

6. 20 Summary

This chapter discussed and interpreted the findings presented in Chapter Five of the present study. The findings revealed that books are the most available information resources in the medical libraries, as indicated by the majority of student respondents followed by journal publications. Other resources mentioned as available were newspapers and magazines, reference resources (for example, encyclopaedias and dictionaries), audio-visual materials, posters, databases and theses and dissertations. The findings also showed that current information is by far the most available service in medical library, as was indicated by majority of the respondents. The findings showed that current information along with exhibitions and displays of new resources are the services that most students are aware of and used in the medical libraries.

On the level of accessibility, the findings revealed that current information services, exhibitions and displays of new resources, reference and information services, user education and reservation services are the most accessible services to the students in the medical libraries. The findings revealed that the most useful facilities for marketing of information resources and services as indicated by the majority of the students are notice boards and library websites. On the awareness of marketing activities in the library, the findings indicated that most of the respondents were largely unaware of all the marketing activity in the library.

The findings of the study showed that the majority of the respondents agreed that the most used marketing strategies/techniques were advertisements followed by public lectures. Other strategies they were aware of where notice boards, social media (such as Face book, blogs, WhatsApp and RSS feeds). User orientation, user education, handbooks, CAS and SDI were also mentioned. The findings highlighted the challenges affecting the smooth marketing of information resources and services. The major challenge according to most of the respondents is inadequate information resources followed by the absence of some essential equipment like computers and their peripherals. Lack of support from National Assembly, time constraints, lack of computer knowledge, negative attitudes displayed by some of the library staff towards library users and the absence of facilities for marketing of information resources and services and written marketing policy documents, which also adversely affected marketing, were also mentioned.

The findings revealed the measures for addressing the challenges as expressed by respondents. One of the measures indicated by the majority was better provision of required information resources followed by the appointment of more staff to operate library activities. Other measures to address the challenges are the creation of awareness of what the library can offer users, sourcing support from alumni associations and donor agencies and the provision of an effective policy on marketing in the libraries in terms of not only creating the policy but the libraries ensuring the implementation of this policy to properly guide marketing of information resources and services. Chapter Seven provides a summary of findings, conclusions, recommendations and suggestions for future research.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

The purpose of the research's conclusion is to offer the opportunity to present important aspects of the knowledge discovered arising from the thesis and priorities for future work on the subject of the thesis (Sampson (2017). The purpose of this study was to explore the marketing of information resources and services in the medical libraries of public universities in the North-Western geopolitical zone of Nigeria. The following research questions were addressed:

1. What resources and facilities are available to facilitate marketing of information resources and services in the medical libraries in the North-West Nigeria?
2. What marketing strategies and techniques are employed to meet users' needs in the medical libraries?
3. What factors adversely affect the effective marketing of information resources and services that are needed by the users of medical libraries?
4. What measures can be employed to facilitate the effective marketing of information resources and services to users in medical libraries?

This chapter is organised around the themes of the research questions, the main variables of the theory supporting the study and broader issues around the research problems. The research was guided by the 4Ps, 7ps, 4Cs marketing mix theory proposed by, McCarthy (1960); Booms and Bitner (1981), Lauterborn (1990) and the Service Quality model (SERVQUAL) of Parasuraman, Zeithml and Berry (1985).

7.2. Summary of the Findings

The empirical findings of the research on marketing to enhance the use of information resources and quality services in medical libraries of public universities in the North-West Nigeria are summarized below. The section first summarizes the demographic findings. This is followed by an overview of the resources and facilities available to facilitate marketing of information resources and services in the medical libraries. Next, the strategies for marketing of information resources and services used by the medical libraries and the challenges they faced in marketing of information resources and services as well as the measures employed to address the challenges they faced in marketing of information resources and services.7.3. Demographic profile of respondents

Gender

The findings indicated that the majority of the student respondents were males (195 or 70%). Likewise, out of the total number of the heads of medical libraries interviewed, three were male and only one (1) was female. This indicates that among the medical students in the four selected universities, male students patronized library services more than their female counterparts.

Age

The study found that most of the respondents (132 or 48%) were between the ages of 21 and 26. This is the most common age range of university students in general.

Educational level

The study indicated that majority of the students (95 or 31%) were in Four Hundred (400) Level. This was not surprising, as they are involved in their final year of preparation of research projects.

Educational level by gender

The study indicates that majority of the respondents, both male and female involved in the study, were in 400 Level (64 or 23%) and (31 or 11%), respectively. However, female students at the postgraduate level were the smallest group of respondents (5or 2%).

Educational level of students by age

The study indicated that the number of students within the age range of 21 and 26 years was 132 (48%) of the total number involved in the study. The vast majority of them were in 400 Level. (66 or 24%). Those within the age range of 38 years and above formed the smallest number (6 or 2%) and the majority of them were in 500 Level.

Qualifications and working experience

The study revealed that the four heads of the medical libraries held Masters' degrees in library and information science and had different levels of experience, ranging from two months to six years respectively. With regards to their overall library experience, one reported to have been working in the library for over 30 years while the others had experience ranging from six years, five years and one year respectively. This indicated that the majority of the heads had both reasonable working experiences in the profession and were holders of Master's degrees in library and information science as well.

Frequency of library use

The findings of the study indicated that the majority of the student respondents (132 or 48%) used the library on a daily basis. The findings also showed that most (239 or 86%) used the libraries for reading the literature in their area of specialization. The indication here is that almost half of the medical students used the libraries on a daily basis.

Purpose for which you use the library

The study found that the majority of the student respondents (239 or 86%) purposively used the libraries to read the literature in their areas of specialization. This finding indicates that most of them patronized the library to study extensively and conduct various forms of research in their subject areas, because to be excellent medical students they needed to be well versed in their study areas.

7.3.1. The resources and facilities available to facilitate marketing of information resources and services in the medical libraries

The first Research Question sought to investigate the resources and facilities available for marketing information resources and services in the medical libraries. This question was addressed through both quantitative and qualitative methods. The findings of the study showed that books were by far the most available information resources, as indicated by most (252 or

91%). This is consistent with the view of all the heads of the medical libraries. The findings also revealed that books, journals, newspapers and magazines along with reference resources (for example, encyclopaedias and dictionaries) were the most accessible and utilized resources by the students in the libraries. This was indicated by 260 or 94%, 231 or 83%, 221 or 80% and 208 or 75% respectively for books, journals, newspapers and magazines and reference works.

The study findings pointed out that the majority of the respondents (53%) agreed that the information resources provided by the medical libraries were current. The study also found that current information is by far the most available information service in the medical libraries, as acknowledged by 199 or 72% of the total respondents. The findings revealed that current information services along with reference and information services/helpdesk, library orientation and exhibitions and displays of new resources (books, journals, and reference sources) are the services that most students appear to be aware of and use in the medical libraries. This was indicated by 60%, 37%, 36% and 36% respectively for these services.

The findings also showed that current information (200 or 72%) of the respondents) and exhibitions and displays of information resources (books, journal and reference resources (164 or 59%) are the most accessible information services in the medical libraries. The findings revealed that a significant number of students (111 or 40%) were more satisfied with current information services than with any other services available in the libraries. The results showed that majority (71%) believed that the services provided by the library met their information needs. The findings also showed that the library services made an impact on the users, as indicated by two (2) of the heads of medical libraries because they observed that most of the users were satisfied and familiar with the library system and were able to handle most of the problems associated with their information searches.

With regards to the facilities used for marketing information resources and services, the findings indicated that the only facilities considered most effective for the marketing of the available information resources and services of the libraries by the majority of the respondents (207 or 75%) were notice boards. Participant (D) confirmed that the library used notice boards for marketing of information resources and services. On the usefulness of the facilities for marketing, the findings indicated that notice boards, library websites, newspapers and social media were the only facilities that were considered useful according to the student respondents.

The study found that most of them (265 or 96%) indicated that they were unaware of any marketing activity in the library.

7.3.2. The strategies/techniques employed in marketing in the library

The second Research Question sought to investigate the strategies/ techniques used by medical libraries for marketing of information resources and services. This question was addressed through both quantitative and qualitative methods. Findings showed that the strategy most commonly used as acknowledged by the majority of the student respondents (234 or 86%) was advertisements. This was followed by public lectures (228 or 82%), notice boards (215 or 78%), use of social media (213 or 77%), use of posters and pamphlets (203 or 73%), exhibitions and displays (191 or 69%), user orientation programmes (191 or 69%) and user education programmes (129 or 47%). The results of the interviews with the heads of medical libraries confirmed that the medical libraries used notice boards, user orientation programmes, social network platforms and series of workshops and seminars as marketing strategies. Other strategies used were use of handbooks, CAS and SDI.

7.3.3. The challenges for the effective marketing of information resources and services to users in medical libraries

The third Research Question sought to identify the challenges faced by the students and staff in marketing of information resources and services. This question was addressed through both quantitative and qualitative methods. The findings of the study revealed the following challenges militating against the effective marketing of information resources and services in the medical libraries:

   i.   Lack of adequate information resources;
  ii.   Lack of current information;
 iii.   Lack of adequate computers and related facilities;
  iv.   Negative attitude of the librarians;
   v.   Lack of adequate facilities for marketing information resources and services;
  vi.   Unstable network;
 vii.   Library is understaffed;
viii.   The absence of alternative power supply and ;
  ix.   Lack of awareness of information resources and services.

The study revealed via the interviews with the heads of medical libraries that the library did not have adequate resources due to the unavailability of funds and current information resources too could not be obtained. Unstable power supply, lack of ICT equipment and maintenance, computer literacy on the part of respondents and unstable networks were also mentioned. Other challenges affecting marketing, as indicated by the heads of medical libraries, included lack of support from the government and National Assembly members, the negative attitudes of some Deans and HODs, time constraints and the absence of written marketing policy documents. Observation by the researcher showed inadequate photocopying and printing facilities in the medical libraries to cater for the needs of users.

7.3.4. The measures employed to facilitate the effective marketing of information resources and services to users in medical libraries.

The fourth Research Question sought to identify the measures the medical libraries employed to facilitate the effective marketing of information resources and services. The question was addressed by both quantitative and qualitative methods. The findings of the study indicated better provision of required information resources was the measure most agreed upon by the students for improving marketing of information resources and services to users of the medical libraries: (148 or 53% respondents). This was followed by appointment of more staff to handle library activities (124 or 45%), provision of an alternative power supply (116 or 42%), better provision of current information resources (116 or 42%)and appointment of competent library staff to handle marketing in the libraries (105 or 38%). Regular marketing of information resources and services (102 or 37%), provision of stable network facilities (93 or 34%), provision of adequate computers and related facilities (82 or 30%) and creating awareness among library users of what the library has to offer (79 or 29%) were suggestions by the respondents.

 The interviews with the heads of medical libraries suggested other measures that would facilitate the effective marketing of information resources. The findings indicate that the provision of adequate funds will be an important measure to address the challenges. Others are sourcing funds and support from donor agencies and alumni associations and publishers and the provision of alternative revenue generation, such as running asocial welfare shop. The establishment of an enabling marketing policy and the implementation of such policy guidelines to guide how libraries would market their services to their users were also needed to improve the patronage and utilization of available resources and services.

7.4. Conclusions

The conclusions are according to the findings of every research question of the study. These are: the resources and facilities available to facilitate marketing of information resources and services in the medical libraries; the strategies/techniques employed in marketing in the library; the challenges for the effective marketing information resources and services to users in medical libraries and the measures employed to facilitate effective marketing of information resources and services to users in medical libraries.

7.4.1 Resources and facilities available to facilitate marketing information resources and services in the medical libraries

The first Research Question sought to investigate the resources and facilities available for marketing information resources and services in the medical libraries. The findings of the study showed that books were by far the most available information resources and also books, journals, newspapers and magazines along with reference resources (for example, encyclopaedias and dictionaries) were the most accessible and utilized resources by the students in the libraries.

The study findings revealed that the information resources provided by the medical libraries were current and that current information was by far the most available service in the medical libraries. The findings revealed that current information services along with reference and information services/helpdesk, library orientation and exhibitions and displays of new resources (books, journals and reference sources) were the services that most students appeared to be aware of and use in the medical libraries.

The findings also showed that current information and exhibitions and displays of information resources (books, journal and reference resources) are the most accessible information services in the medical libraries. The findings revealed that a significant number of students was more satisfied with current information services than with any other services available in the libraries. The results showed that the majority believed that the services provided by the library met their information needs. The findings also showed that the library services made an impact on the users because they were satisfied and familiar with the library system and able to handle most of the problems associated with their information searches.

With regards to the facilities used for marketing information resources and services, the findings indicated that the only facilities considered most effective were notice boards. On the usefulness

of the facilities for marketing, the findings indicated that notice boards, library websites, newspapers and social media were the only facilities that were considered useful. The study found that most of the respondents were unaware of any marketing activity in the library.

7.4.2. The strategies/techniques employed in marketing in the library

The second Research Question investigated the strategies/ techniques used by medical libraries for marketing information resources and services. This question was addressed through both quantitative and qualitative methods. Findings showed that the strategy most commonly used was advertisements. This was followed by public lectures, use of social media platforms, notice boards posters and pamphlets, user orientation programmes, exhibitions and displays user education programmes. Also there was a series of seminars and workshops as marketing strategies. Other strategies used were handbooks, CAS and SDI.

7.4.3. The challenges for the effective marketing of information resources and services to users in medical libraries

The third Research Question identified the challenges faced by the students and staff in marketing of information resources and services. This question was addressed through both quantitative and qualitative methods. The findings of the study revealed the following challenges militating against the effective marketing of information resources and services in the medical libraries:

  i.   Lack of adequate information resources;
 ii.   Lack of current information;
iii.   Lack of adequate computers and related facilities;
 iv.   Negative attitude of the librarians;
  v.   Lack of adequate facilities for marketing information resources and services;
 vi.   Unstable network;
vii.   Library is understaffed;
viii. The absence of alternative power supply and ;
 ix.   Lack of awareness of information resources and services.

The study confirmed that the library did not have adequate resources due to the unavailability of funds; current information resources too could not be obtained. Unstable power supply, lack of ICT equipment and maintenance, computer literacy on the part of respondents and unstable networks, lack of support from the government and National Assembly members, the negative

attitudes of some Deans and HODs, time constraints and the absence of written marketing policy documents were all challenges. There were as well inadequate photocopying and printing facilities in the medical libraries to cater for the needs of users.

7.4.4. The measures employed to facilitate the effective marketing of information resources and services to users in medical libraries.

The fourth Research Question sought to identify the measures the medical libraries employed to facilitate the effective marketing of information resources and services. The question was addressed by both quantitative and qualitative methods. The findings of the study indicated better provision of required information resources was the measure most effective for improving marketing information resources and services to users of the medical libraries. This was followed by the appointment of more staff to handle library activities, the provision of an alternative power supply, better provision of current information resources and the appointment of competent library staff to handle marketing in the libraries, regular marketing of information resources and services, the provision of stable network facilities and adequate computers and related facilities and creating awareness among library users of what the library had to offer.

The findings indicate that the provision of adequate funds will be an important measure to address the challenges. Others are sourcing funds and support from donor agencies and alumni associations and publishers and the provision of alternative revenue generation, such as running asocial welfare shop. The establishment of an enabling marketing policy and the implementation of such policy guidelines to guide how libraries would market their services to their users were also needed to improve the patronage and utilization of the available resources and services.

7.5. Recommendations:

Based on the findings of the study, the researcher made the following recommendations:

7.5.1. The resources and facilities available to facilitate marketing information resources and services in the medical libraries

For effective marketing in an organization, the 4Ps, 7Ps 4Cs and SERVQUAL has emphasized that there should be quality product/ reliability, place, physical evidence and convenience. These represent relevant and effective information resources and services in the libraries. However, the findings of this study show that only books are the dominant information resources available in

the libraries. The results indicate that notice boards, library websites, newspapers and social media are useful facilities for marketing. However, some of the resources services and facilities were not known by the users such as audio-visual databases. This adversely affects marketing information resources and services in the medical libraries understudy.

Recommendation 1: Therefore, it is recommended that resources, services, and facilities such as databases, an audio-visual resource, posters, reservation services, interlibrary loan, photocopying and printing services should be adequately provided in the libraries. This will undoubtedly facilitate the marketing of the resources on the part of the libraries and at the same time facilitate effective utilization of the resources on the part of the library users.

Recommended 2: It is recommended that other facilities, such as television and radio programmes the SMS alerts, should market library resources and services to users. Likewise, in providing these resources, emphasis should be placed on e-resources, such as e-books, e-journals, digital services, e-lending services, more borrowing opportunities of e-books to users, etcetera. The aim is to address the challenges posed by pandemic diseases such as the COVID-19. This is because physical access to resources and services has become almost impossible due to the closure of libraries and other public places to control the spread of the coronavirus (Pérez-Salmerón 2021and IFLA 2021).

7.5.2. The strategies/techniques employed in marketing in the library

Accordingly, the 4Ps, 7Ps, 4Cs and SERVQUAL model advocate that effective Promotion/ communication/empathy should be part of the medium to inform users of the products and services for marketing. In the context of this study, it is an avenue in which users will be enticed to patronize the library and its resources through advertisement or publicity. According the results of this research, it is that the strategy most commonly used in the libraries, as agreed by the majority of the student respondents is advertisements. Other mediums used by the libraries are user orientation programmes, notice boards, social media and a series of seminars and workshops SDI, CAS and handbooks as marketing strategies. However, these strategies or the promotion media seem to be ineffective. Similarly, the findings have also showed that not all the medical libraries involved in this study have appropriate marketing policies that guide marketing of information resources and services. This explains why some of the resources and services are unknown to the users. Consequently, it has an adverse effect on marketing of information resources and services in medical libraries.

The policy should be designed to balance the use of conventional and emerging technologies in developing strategies that will steer and promote the utilization of resources and services.

Recommendation 3: Therefore, it is recommended that the libraries should create an effective marketing policy that will lead to implementing appropriate marketing strategies. The policy should be designed to harmonize the use of conventional and emerging technologies in developing strategies that will steer and advance the utilization of resources and services in the medical libraries, particularly nowadays, when these technologies are most required. This is mainly for coronavirus phobia, as libraries are compelled to provide their services remotely or via internet (IFLA 2021). Concurrently, the policy will assist to evaluate the strengths and shortcomings of the current strategy while also allowing to improve significantly. Furthermore, the policy should be revised regularly, for example, after every five (5) years to keep in tune with the current trend in library marketing strategies. Professional associations such as the Nigerian Library Association (NLA) and Librarian's Registration Council of Nigeria (LRCN) will involve to ensure realization of these objectives.

Recommendation 4: It is also recommended that all library staff must periodically undertake training programmes. The aim is to enable them to obtain new skills through internal seminars workshops, conferences and meetings with senior professionals through professional Associations, such as the Nigerian Library Association (NLA), Librarian's Registration Council of Nigeria (LRCN), Nigerian Medical Library Association (NMLA), in addition, to get higher qualifications and degrees, as well as new skills for the providing information during the COVID-19 period, such as complying the protocols of the pandemic during skeleton services and other safety measures by library staff (IFLA 2021). These will surely motivate them to be diligent to their duties. They should also be enlightened on how to build friendly relationships with library patrons. As a result, the patrons will return to the library on frequent basis and, conversely, they will assist in marketing resources and services to their family and friends.

7.5.3. The challenges for the effective marketing of information resources and services to users in medical libraries

The 4Ps, 7Ps, 4Cs and SERV QUAL model advocate that the Cost/price/tangibles are the determinants of the availability of quality products and services in any organization. In the context of this study, it will enable the libraries to make information and services available and

accessible so users, who can optimally use them to satisfy their information resources and service needs. The findings of this study have revealed that the major challenges in marketing of information resources and services in the medical libraries revolve around lack of adequate information resources; lack of current information; lack of adequate computers and related facilities; the negative attitude of the librarians; lack of adequate facilities for marketing information resources and services; unstable network; library is understaffed; the absence of alternative power supply and lack of awareness of information resources and services. Others are the unavailability of funds; current information resources; unstable power supply; lack of ICT equipment and maintenance; computer literacy on the part of respondents; unstable networks; lack of support from the government and National Assembly members, the negative attitudes of some Deans and HODs, time constraints and the absence of written marketing policy documents and inadequate photocopying and printing facilities.

Recommendation 5: It is, therefore, recommended that the medical libraries should provide adequate computer and other related electronic information facilities, as well as reprographic so as to increase the network bandwidth. The aim is that each household would be provided with a stable network to access the library during lockdowns when libraries were closed as a result of the COVID-19 pandemic and physical access to information resources and services is almost impossible (Pérez-Salmerón2021 and IFLA 2021). Consequently, access and use of online information resources and services by users will be efficiently enhanced. Thus, the medical libraries should deploy all the relevant and necessary ICT tools to ensure the proper use of these facilities in their bid to meet the users' needs in this trying moment. Discussion rooms, restrooms, radio, television and websites need to be provided so as to ensure a fair use of library resources and services. At the same time, reprographic services at the medical libraries should be efficient in order to meet library users' needs and at the same time to generate more funds to the medical libraries to support some of their essential services. The most fascinating of all is that this development will bring about effective use of information resources and services.

Recommendation 6: it is recommended that the libraries should plan for alternative power sources, including standby generators, inverters and solar energy, to ensure a consistent and uninterrupted power supply. This also requires additional funding, as well as the intervention of donor agencies and the friends of the library. The idea is to facilitate regular use of information resources and services.

Similarly, there is the need to enrol technicians, who can satisfactorily maintain these facilities. However, this requires adequate funding as well. Medical libraries should secure sufficient funding from their parent bodies, donor agencies and regulatory bodies, such as the Tertiary Education Trust Fund (TetFund) through Annual Intervention Funds, Nigerian Communications Commission (NCC), National Information Technology Development Agency (NITDA) friends of the libraries and other donor agencies to provide these facilities or raise funds to supply them to the medical libraries for optimum use of their resources and services. These could be successfully achieved if the medical libraries set up a five-year target plan and the timeframe should be reviewed after every five years to ensure operational efficacy.

Recommendation 7: It is recommended that the libraries should employ adequate staff to attend to varying degrees of library activities. This can be achieved a through provision in the annual budget of the medical libraries or resource sharing or linkages. The library should make a five year plan that would enable them to employ forty (40) more staff, for example. Every year the library should employ eight (8) staff. Thus, in five years, the medical libraries will have additional forty staff (40) staff that will, in turn, handle marketing of information resources and services in medical libraries professionally and efficiently.

7.5.4. The measures employed to facilitate the effective marketing of information resources

7Ps, 4Cs and SERVQUAL emphasize that people/process/customer/empathy/ assurance should be the human components with requisite professional qualities, compassionate that will do the marketing job through the requisite procedures and flow of activities by which the library provide the relevant and effective resources and services to its innumerable users. The findings of this study have justified the need for improving marketing information resources and services to users, provision of adequate funds, sourcing funds and support from donor agencies, alumni associations and publishers, formulation and implementation of marketing policy to guide how the libraries could market their resources and services to their users.

Recommendations 8: It is therefore, recommended that the universities should use all the means within their reach to establish a good working relationship with the government and National Assembly members so as to assist them to secure their annual budgets in particular and any other financial support as well. This could be achieved by establishing a good relationship before the budget defence and enlightening the members on the medical libraries' programmes and their

impact in facilitating the teaching, learning and research of medical students and professionals. Similarly, the libraries ought to build a good relationship with other colleagues in the Medical College/faculty and the university at large, especially deans and heads of department as well as other faculty and department members. This could be achieved by attending regular meetings, academic boards, seminars, workshops, symposiums and inaugural lectures. The medical libraries should target three (3) financial years to realize this objective. This will enhance a mutual relationship among them so much that once the library forwards a request to a faculty; there will be a prompt response.

7.6. Contribution and Originality of the Study

The present research is unique because there was a paucity of literature showing similar studies specifically in Nigeria. (See chapter 1, section 1.6). The research conducted previously concentrated on marketing in academic libraries generally rather than the medical. This is the gap bridged by the present study. For example, the research conducted previously concentrated on marketing academic libraries to the detriment of medical libraries. The studies included Shehu (2015) and Odine (2011) in Kaduna and Niger state.

The current study empirically marketing to enhance the use of information resources and quality of services in medical libraries of public universities in the North-West Nigeria. The research used a mixed-methods research design of explanatory sequential type with the combination of 4Ps, 7Ps and 4Cs marketing mix theory as well as the SERVQUAL models. This was different from previous studies conducted in Nigeria, which have largely used only quantitative methods, as confirmed by the studies of Shehu (2015) and Odine (2011) .The mixed methods approach allowed the researcher to conduct a thorough in-depth investigation into marketing of information resources and services in medical libraries. The study also offers empirically based data for policy formulation for steering and promoting marketing to enhance the use of information resources and quality services in medical libraries of public universities in the North-West Nigeria at large .Furthermore, as there is no empirical evidence showing a study using a mixed-methods approach that has been conducted in North-Western Nigeria, this present study is unique in that it uses a mixed methods explanatory type to address a research gap.

7.6.1. Contribution to Theory

Theoretically, the present study provided an understanding of the importance of theory in marketing information resources and service in libraries generally and medical libraries in

particular. Therefore, it recommend the adoption of 4Ps, 7Ps, 4Cs marketing mix and the SERVQUAL model as new method that would guide and improve marketing of information resources and services to meet the needs of the medical students in the study area. The product and promotion/communication models in the 4Ps, 7Ps, and 4Cs marketing mix theory underpinned this study and enabled medical libraries to understand the importance of marketing to provide the right products and services and make users abreast of existing information resources and services. So, also the reliability and responsiveness model enabled this study in the provision of requisite quality information resources and services to users.

The study used the 4Ps, 7ps, 4cs marketing theory and service quality model. The 7Ps theory emphasized marketing services and 4Ps covered the product aspects of marketing, which is of significance to effective library services marketing delivery. So, also the 4Cs emphasized on the customer aspects of the theory. The SERVQUAL model emphasizes the quality of services to users by bridging the gap between the users' expectations and perceptions.

7.6.2. Contribution to Policy

The study will help the medical libraries in public Universities in Nigeria generally to use the research outcomes to develop marketing policy documents that will enhance and reposition marketing of information resources and services in libraries generally and medical libraries in particular. The results will serve as a guide to the universities involved in the study to design an effective marketing policy that will lead to marketing information in the libraries to the next level. Professional library bodies like Nigerian Library Association (NLA) and Librarian's Registration Council of Nigeria (LRCN) could use the results to develop a policy framework that will guide marketing information resources and services in Nigerian libraries. Similarly, NLA as an umbrella body could use the outcomes to include marketing information resources and services as one of its cardinal objectives.

7.6.3. Contribution to Practice

The outcome of this research could raise awareness among librarians and other stakeholders on the need for the effective marketing of information resources and services in medical libraries. The recognition of the importance of marketing is crucial and will lead to the efficient marketing of information resources and services in the medical libraries. The study established that the 4Ps, 7Ps, 4Cs marketing mix theory and service quality model were the basis for the effective

marketing information resources and services. The findings could assist the medical libraries in developing effective strategies that facilitate the use of information resources and services. The study contributes towards a structure to understand the enablers and the factors affecting the smooth marketing of information resources and services in medical libraries and provides suggestions that could help the libraries in addressing the challenges. The heads of medical libraries may use the study findings as a guide to review their responsibilities and ensure that the libraries fully engage in marketing.

7.6.4. Contribution to Methodology

The research adds to the body of knowledge in the field of methodology in terms of its use of the mixed methods technique to examine the marketing of information resources and services in medical libraries of public Universities in North-West Nigeria.

7.7 Summary

This chapter summarized all the chapters of this study, including the findings, the conclusions and the recommendations. The study presented marketing of information resources and services in medical libraries of public universities in the North-Western geopolitical zone of Nigeria. The 4Ps, 7Ps, 4Cs marketing mix and SERVQUAL model were the theories used for the research. An explanatory sequential mixed method was used in the study. The data in this study was collected using questionnaires, semi-structured interviews and observation. Quantitative results were analyzed using the SPSS and qualitative ones analyzed using the NVivo software.

Notably, marketing of information resources and services exists in all the medical libraries though this is unsatisfactory. Thus, the need to improve marketing of information resources and services is mandatory so as to ensure proper marketing of information resources and services to medical students and medical professionals. The major factors affecting the efficacy of marketing of information resources and services as identified in this study were:

    i.   Lack of adequate information resources;

    ii.   Lack of current information;

    iii.   Lack of adequate computers and related facilities; and

    iv.   Negative attitude of the librarians.

The study therefore, recommended adequate funding of the libraries to provide the sufficient resources and facilities needed for marketing. It is also recommended the libraries should create an effective marketing policy that will lead to implementing appropriate marketing strategies. The policy should be designed to harmonize the use of conventional and emerging technologies in developing strategies that will steer and advance the utilization of resources and services in the medical libraries, particularly considering the fact that nowadays these technologies are most needed!

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Appendix 1   Informed Consent Letter

University of KwaZulu-Natal Library
School of Social Sciences
Information Studies Programme
Private Bag X01vv
Scottsville 3209
Telephone: 033 -260-5007
Fax: 031- 260- 4426

8th September, 2017

Dear Respondent

Informed Consent Letter

Researcher:	Mudassir Abubakar Abule
Institution;	University of KwaZulu-Natal
Telephone number:	█████████
Email address:	████████████████████████

Supervisor:	Dr Francis Garaba
Institution:	University of KwaZulu-Natal
Telephone number:	████████████
Email address:	garaba@ukzn.ac.za

HSSREC Research Office:`` Ms PhumeleleXimba

Institution:	University of KwaZulu-Natal Research Office
Telephone Number:	031-260 8350
Email address:	HssrecHumanties@ukzn.ac.za

I, Mudassir Abubakar Abule, of the University of KwaZulu-Natal, kindly invite you to participate in the research project entitled "Marketing of information resources and services in Medical Libraries of public Universities in the north-western geopolitical zone of Nigeria".

This research project is undertaken as part of the requirements of the PhD, which is undertaken through the University of KwaZulu-Natal, Information Studies Department.

The aim of this study is to examine Marketing of Information Resources and Services in Medical Libraries of public Universities in the north-western geopolitical zone of Nigeria.

Participation in this research project is voluntary. You may refuse to participate or withdraw from the research project at any stage and for any reason without any form of disadvantage. There will be no monetary gain from participating in this research project. Also, you may decline to accept the interview to be recorded in an audio device. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Department of Information Studies, at the University of KwaZulu-Natal.

If you have any questions or concerns about participating in this study, please feel free to contact myself or my supervisor at the numbers indicated above.

It should take you about 15 minutes to complete the questionnaire.

Thank you for participating in this research project.

8thSeptember, 2017

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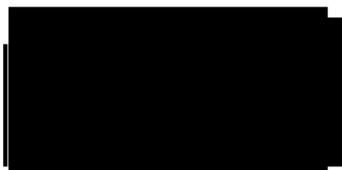
Signature   Date

I .... hereby consent to participate in the above study.

Name: .... Date: .... Signature: ....

Supervisor's details   Student's details

Appendix 2 Questionnaires for Medical Students

QUESTIONNAIRE FOR MEDICAL STUDENTS

INSTRUCTIONS: Please Tick (√) in the appropriate answer space and provide written answers where required in the space provided.

SECTION A: BACKGROUND INFORMATION

1. Name of institution: currently registered at

    a) Ahmadu Bello University Zaria   ( )

    b) Bayero University Kano   ( )

    c) Kaduna State University Kaduna   ( )

    d) Usmanu Danfodio University Sokoto ( )

2. Please indicate your gender:

    a) a. Male   ( )

    b) b. Female   ( )

3. What is your current level of study?

    a) 100 level   ( )

    b) 200 level   ( )

    c) 300 level   ( )

    d) 400 level   ( )

    e) 500 level   ( )

Other please specify ………………………………………….

4. Pleases indicate your age range:

    a) 15-20   ( )

    b) 21-26   ( )

    c) 27-32   ( )

    d) 33-38   ( )

    e) 39 and above   ( )

SECTIONB: USE OF THE LIBRARY

5. How frequently do you use the library?

    a) Daily   ( )

    b) Twice a week   ( )

    c) Weekly   ( )

    d) Fortnightly   ( )

    e) Occasionally   ( )

Others, please specify …………………………………………………………..

6. For what purpose are you using the library?

Please tick (√) next to as many relevant options as necessary

    a) To read in my study area   ( )

    b) For current information   ( )

    c) To borrow materials   ( )

    d) For printing and photocopying relevant documents   ( )

    e) For reading newspapers   ( )

    f) For research needs   ( )

    g) Others, please specify ………………………………………………….

SECTION C: RESOURCES AND SERVICES AVAILABLE

7. What types of resources do you know of that are available in your library

Please tick (√) as many answers as you need to:

    a) Books   ( )

    b) Journals   ( )

    c) Newspapers and magazines   ( )

    d) Reference resources (e.g. encyclopaedias and dictionaries) ( )

    e) Internet   ( )

    f) Audio visual resources   ( )

    g) Posters   ( )

h) Databases   ( )

i) Theses and dissertations   ( )

j) Others please specify……………………………………

8. Are the following resources available for use in your library?

S/N.	Resources	Available	Not available	Not sure
a.	Books			
b.	Journals			
c.	Newspapers and magazines			
d.	Reference resources (e.g. encyclopaedias and dictionaries)			
e.	Audio visual resources			
f.	Posters			
g.	Internet			
h.	Databases			
i.	Theses and dissertations			
j.	Others, please specify………………………………….			

9. How current are the library resources?

a) Current   ( )

b) Less than five years old   ( )

c) Out-dated   ( )

10. In general how satisfied are you with the resources provided by the library? Please give your reasons………………….……………………………………………………………….
………………………………………………………………………………………………
………………………….……………………………………………………………………...

11. Which of the following services are available at your library that you are aware of?

Please tick (√) as many answers as are relevant

S/N	Types of services	Available	Not available
a.	Current information		
b.	User education		
c.	Reservations		
d	Inter library loan		
e.	Reference and information services / help		
f.	Indexing and abstracting journals		
g.	Exhibitions and displays of new resources (books, journals, and reference sources)		
h.	Library orientation		
i.	Photocopying and printing		
j.	Others, please specify…………………………………….		

12. Which of all the information services available in your library do you use?

S/N	Types of services	Aware of and use	Aware but don't use any of them	Not aware
a.	Current information			
b.	User education			
c.	Reservations			
d	Inter library loan			
e.	Reference and information services / help			
	Indexing and abstracting journals			
g	Exhibitions and displays of new resources (books, journals, and reference sources)			
h.	Library orientation			
i.	Photocopying and printing			
j.	Others, please specify			

13. Are all the services mentioned above accessible?

S/N	Types of services	Accessible	Not accessible
a.	Current information		
b.	User education		
c.	Reservation		
d.	Reference and information		
e.	Indexing and abstracting		
f.	Exhibition and display of new resources (books, journals, and reference sources)		
g.	Library orientation		
h.	Photocopying and printing		
i.	Others, please specify…………………………………………………………..…..……………………………………………………………………………………………….		

14. To what extents are you satisfied with the following services provided by the library that you have used.

S/N	Types of services	Strongly satisfied	Satisfied	Strongly dissatisfied	Dissatisfied
a.	Current information				
b.	User education				
c.	Reservation				
d.	Reference and information				
e.	Indexing and abstracting				
f.	Exhibition and display of new resources (books, journals, and reference sources)				
g.	Library orientation				
h.	Photocopying and printing				
i.	Others, please specify………………………………………………………… ……………………………………………………………………………..				

15. Do you think the services provided by the library satisfy your information needs?

    a) Yes   ( )

    b) No   ( )

16. In general how satisfied are you with the services provided by the library? Please give your reasons

    ……………………………………………………………………………………….

    ………………………………………………………………………………………..

    ………………………………………………………………………………………..

SECTION D: FACILITIES USED TO FIND INFORMATION IN THE LIBRARIES

17. Which of the following facilities help you find out about information resources and services in your library?

Please tick (√) as many as are appropriate

S/N.	Facilities	Available	Not available
a.	Notice boards		
b.	Television programme		
c.	Radio programme		
d.	University notice system, (emails)		
e.	Use of social media (Face book, Twitter, and blogs)		
f.	SMS alerts		
g.	Newspapers and magazines		
h.	Library websites		
i.	Leaflets and posters		
j.	Others, please specify………………………………………………….… …………………………………………………………………….……		

18. How useful are the following facilities for informing you about the resources and services used for marketing in your library?

Please tick (√) the appropriate answer.

S/N.	Facilities	Very useful	Useful	Not very useful	Not useful
a.	Notice boards				
b.	Television programme				
c.	Radio programme				
d.	University notice system, emails				
he.	Use of social media				
f.	SMS alerts				
g.	Newspapers and magazines				
h.	Library websites				
i.	Leaflets and posters				
j.	Others, please specify…………………………………………………..………… …………………………………………………………………….…………				

SECTION E: MARKETING AND STRATEGY

19. Are you aware of whether the library undertakes any activity to market its resources and services?

   a) Yes   ( )

   b) No   ( )

20. If yes can you provide details?

       ………………………………………………………………….

       ………………………………………………………………….

21. What are the strategies employed for marketing in your library?

Please tick (√) as appropriate

S/N	STRATEGIES	
a.	Advertisement	
b.	Exhibitions and displays	
c.	Use of social media such as Facebook, Twitter, and blogs	
d.	Notice boards	
e.	User education programme	
f.	Public lectures	
g.	User orientation programme	
h.	Use of posters and pamphlets	
i.	Others, please specify.	

SECTION F: FACTORS THAT ADVERSELY AFFECTING THE EFFECTIVE MARKETING IN THE LIBRARIES

22. What problems do you experience with the library resources and services?

Please tick (√) as many answers as appropriate

a.	Lack of information resources	
b.	Lack of current information resources	
c.	Lack of adequate facilities for marketing information resources and services	
d.	Unstable network	
e.	Absence of alternative power supply	
f.	Negative attitudes of librarians	
g.	Lack of current information resources	
h.	Lack of adequate computers and related facilities	
i.	Lack of awareness of information resources and services	
j.	Library is understaffed	
k.	Others, please specify…………………………………………….. ……………………………………………………………………	

SECTION F: **MEASURES TO ADDRESS THE EXISTING CHALLENGES**.

23. What do you think the library could do to address the present challenges?

Please tick (√) as many answers as appropriate.

a.	Better provision of required information resources	
b.	Creating awareness among library users of what the library has to offer	
c.	Appointment of competent library staff to handle marketing in the libraries.	
d.	Provision of stable network facilities	
e.	Provision of alternative power supply	
f.	Appointment of more staff to handle library activities	
g.	Better provision of current information resources	
h.	Provision of adequate computers and related facilities	
i.	Regular marketing of information resources and services.	
j.	Others please specify……………………………………………….. ……………………………………………………………………………	

24. Any further comments you would like to add………………………………………………
………………………………………………………………………………………………
…………………………………………………………………………………….……..

Thank you for completing the questionnaire.

Appendix 3 Informed Consent Letter for Interviews

<div align="right">

University of KwaZulu-Natal Library
School of Social Sciences
Information Studies Programme
Private Bag X01
Scottsville
3209
Telephone: 033 -260-5007
Fax: 031- 260- 4426

8th September, 2017

</div>

Dear Respondent

Informed consent letter for interviews

Researcher:	Mudassir Abubakar Abule
Institution;	University of KwaZulu-Natal
Telephone number:	██████████
Email address:	████████████████████████████

Supervisor:	Dr Francis Garaba
Institution:	University of KwaZulu-Natal
Telephone number:	██████████
Email address:	garaba@ukzn.ac.za

HSSREC Research Office:	Ms PhumeleleXimba
Institution:	University of KwaZulu-Natal Research Office
Telephone Number:	031-260 8350
Email address:	HssrecHumanties@ukzn.ac.za

I, Mudassir Abubakar Abule, of the University of KwaZulu-Natal, kindly invite you to participate in the research project entitled "Marketing of information resources and services in Medical Libraries of public Universities in the north-western geopolitical zone of Nigeria".

This research project is undertaken as part of the requirements of the PhD, which is undertaken through the University of KwaZulu-Natal, Information Studies Department.

The aim of this study is to examine Marketing of Information Resources and Services in Medical Libraries of public Universities in the north-western geopolitical zone of Nigeria.

Participation in this research project is voluntary. You may refuse to participate or withdraw from the research project at any stage and for any reason without any form of disadvantage. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Department of Information Studies, at the University of KwaZulu-Natal.

If you have any questions or concerns about participating in this study, please feel free to contact myself or my supervisor at the numbers indicated above.

It should take you about 15 minutes to complete the questionnaire.

Thank you for participating in this research project.

6thSeptember 2017

---------------------   --------------------

Signature   Date

I .... hereby consent to participate in the above study.

Additional consent

I hereby provide consent to:

Audio/video-record my interview

YES	NO

Name: .... Date: .... Signature: ....

Supervisor's details   Student's details

Appendix 4: Interview Schedule for Heads of Medical Libraries

INTERVIEW SCHEDULE FOR HEADS OF MEDICAL LIBRARIES

INTERVIEW SCHEDULE

SECTION A: BACKGROUND INFORMATION

1. Name of institution...?

2. Gender..?

3. Educational qualification...?

4. Age..?

a. 30-35

B.36-41

c. 42-47

D.48-53

e. 54 and above

5. Experience...?

6. Position...?

SECTION B: **RESOURCES SERVICES AND FACILITIES FOR MARKETING**

7. Is your library engaged in marketing its resources and services...................................?

8. Is there any established policy that guides marketing of your library.........................?

9. If yes what is the content of your marketing policy......................………...................?

10. Who is responsible for marketing in your library...?

11. What are the resources and services available for marketing your library......................?

12. Are the resources sufficient..?

13. What is the problem with the resources regarding meeting information needs? ....?

14. Do you have an acquisitions policy Yes or No? ....?

15. If yes are you able to implement it Yes or No..?

16. If No why not...?

17. If Yes what are the factors affecting collection development....................................?

18. How do you buy resources..?

19. Do your available resources match your established acquisition policy........................?

20. How do you market your resources and services…………………………………………?

21. What facilities are available for marketing information resources and services…..........?

SECTION C: TECHNIQUES EMPLOYED FOR MARKETING

22. What techniques are employed for marketing in your library…………………..……….?

23. Are the techniques employed effectively...?

24. What are the impacts of those techniques in your library...?

SECTION D: STRATEGIES FOR MARKETING

25. What are the marketing strategies employed for marketing in your library.......................?

26. Are the strategies used effectively..?

27. What are the responses of users from implementation period to date................................?

28. What are the impacts of the strategies employed by the libraries regarding the use of information resources and services…………………………………………..…………?

SECTION E: FACTORS AFFECTING THE EFFECTIVE MARKETING IN YOUR LIBRARY

29. What are the challenges you encounter in terms of marketing in your library..................?

SECTION F: MEASURES TO EMPLOYED TO FACILITATE EFFECTIVE MARKETING

30. What the measures would you like to put in place to address the existing challenges……?

31. Any further comment would want to add…………………………………...……………

……………………………………………………………………………….……………

…………………………………………………………………………………

Thank you.

Appendix 5: Observation Checklist

Observation: Non-Participant

MARKETING OF INFORMATION RESOURCES AND SERVICES IN MEDICAL LIBRARIES OF PUBLIC UNIVERSITIES OF NORTH-WESTERN GEOPOLITICAL ZONE OF NIGERIA:

Background Information

Name of the University…………………………………………………

Address…………………………………………………………………

E-mail……………………………………………………………………

Date of Observation…………………………………………………….

Observation checklist:

1. The policy documents of the library:

    a) Complete writing documents for its operations………..………………

    b) The content of the policy documents…………………………………..

    c) Up to date records of library usage…………………………………

2. The physical structure of the library and surrounding

    a) Prototype building/converted………………………..………………

    b) The conducive atmosphere regarding ventilation and location…………

    c) Carrying capacity……………………………………………………..

3. Resources available in the library regarding volumes and up to date.

    a) Quantity……………………………………………………………….

    b) Up to date……………………………………………..……………..

    c) Relevance……………………………………………………………..

4. Facilities available:

a) The available computers and their number……………………….…..

b) Network connectivity……………………………………..……...

c) Seating facilities (tables and chairs)…………………………………………

d) Printers and photocopiers……………….……………………………

5. Library users turn out

a) The patronage of the library by the users………………………………….

b) The time spend in the library……………………………………………

Appendix 6: Introduction Letter (ABU)

UNIVERSITY OF
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

28th March, 2017

The Medical Librarian,
Faculty of Medicine,
Ahmadu Bello University Zaria,
Kaduna state, Nigeria.

Dear Ma,

RE: Introducing Mr Mudassir Abubakar Abule a PhD Student at University of KwaZulu-Natal.

My name is Mudassir Abuakar Abule, I am a doctoral student (Information Studies) at the University of KwaZulu-Natal, South Africa. The title of my PhD research is "Marketing of information resources and services in Special libraries with particular reference to the Medical Libraries of Public Universities in the North-Western geopolitical zone of Nigeria".

In view of the above, I therefore, seek the permission of medical librarian of this great University to grant me access and approval to carry out my research in the library. I will need a letter of approval from you, to present to my University because UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given me the approval.

I appreciate your support and understanding to grant me the permission to carry out my research in your library. If you need any further information, you may wish to contact my supervisor on the address below.
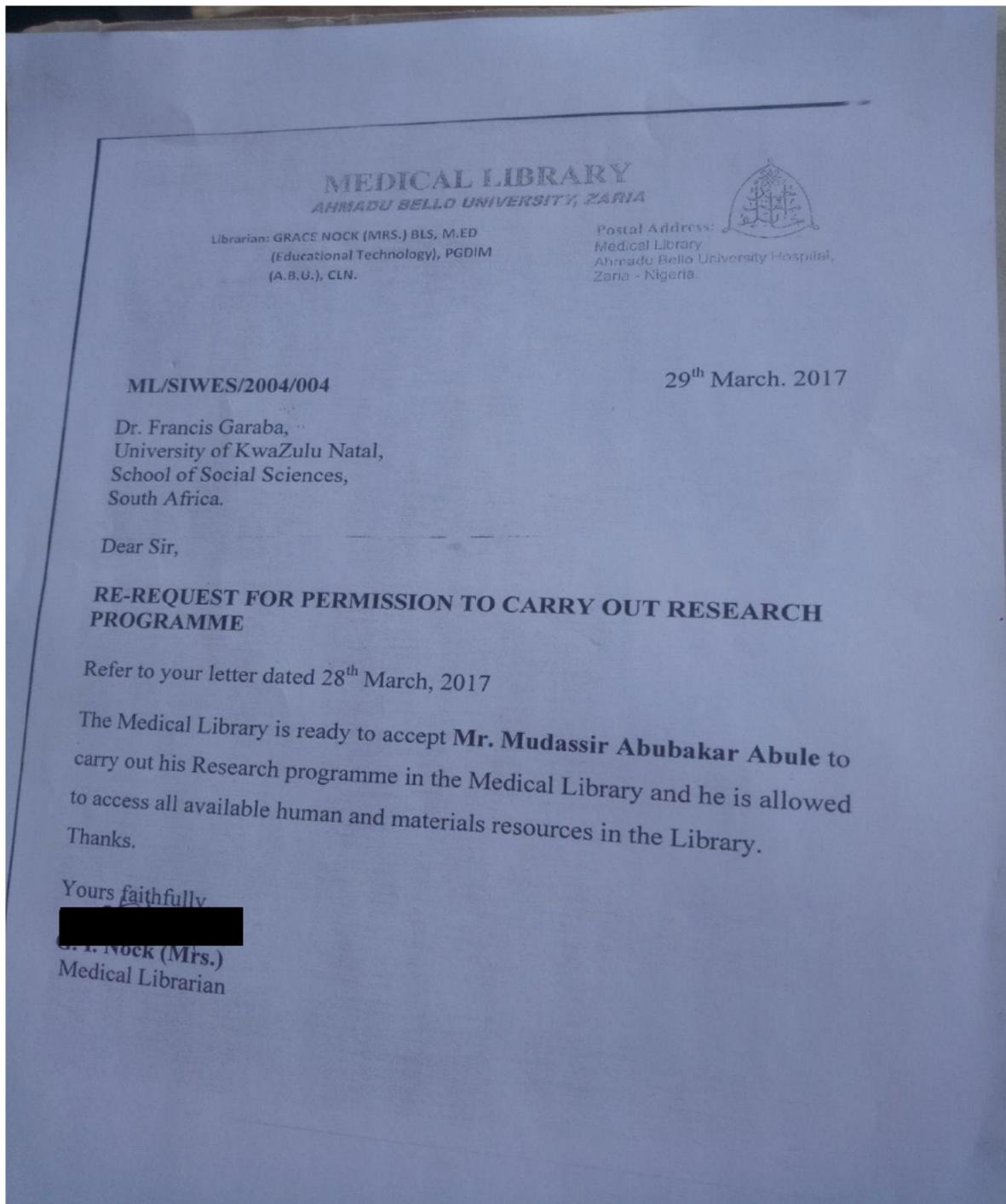
Thank you in advance for your understanding

Mudassir Abubakar Abule

Dr. Francis Garaba (Supervisor)
University of KwaZulu Natal
School of Social Sciences
PMB campus
Pietermaritzburg
Email: garaba@ukzn.ac.za
Tel: +27 33 260 5321
Cell: 0745135910

MEDICAL LIBRARY
AHMADU BELLO UNIVERSITY, ZARIA

Librarian: GRACE NOCK (MRS.) BLS, M.ED
(Educational Technology), PGDIM
(A.B.U.), CLN.

Postal Address:
Medical Library
Ahmadu Bello University Hospital,
Zaria - Nigeria.

ML/SIWES/2004/004   29th March. 2017

Dr. Francis Garaba,
University of KwaZulu Natal,
School of Social Sciences,
South Africa.

Dear Sir,

RE-REQUEST FOR PERMISSION TO CARRY OUT RESEARCH PROGRAMME

Refer to your letter dated 28th March, 2017

The Medical Library is ready to accept **Mr. Mudassir Abubakar Abule** to carry out his Research programme in the Medical Library and he is allowed to access all available human and materials resources in the Library. Thanks.

Yours faithfully

G. I. Nock (Mrs.)
Medical Librarian

Appendix 8 Introduction Letter (BUK)

UNIVERSITY OF
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

28th March, 2017

The University Librarian,
Bayero University Kano,
Kano, Nigeria.

Dear Sir,

RE: Introducing Mr Mudassir Abubakar Abule a PhD Student at University of KwaZulu-Natal

My name is Mudassir Abuakar Abule, I am a doctoral student (Information Studies) at the University of KwaZulu-Natal, South Africa. The title of my PhD research is "Marketing of information resources and services in Special libraries with particular reference to the Medical Libraries of Public Universities in the North-Western geopolitical zone of Nigeria".

In view of the above, I therefore, seek the permission of the librarian of this great University to grant me access and approval to carry out my research in the medical library. I will need a letter of approval from you, to present to my University because UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given me the approval.

I appreciate your support and understanding to grant me the permission to carry out my research in your library. If you need any further information, you may wish to contact my supervisor on the address below.

Thank you in advance for your understanding.

Mudassir Abubakar Abule

Dr. Francis Garaba (Supervisor)

University of KwaZulu Natal
School of Social Sciences
PMB campus
Pietermaritzburg
Email: garaba@ukzn.ac.za
Tel: +27 33 260 5321
Cell: 0745135910

Appendix 9 Gatekeepers Letter (BUK)

BAYERO UNIVERSITY, KANO
(Office of the University Librarian)

VICE-CHANCELLOR:
Prof. Muhammad Yahuza Bello, B. Sc, M. Sc (BUK), Ph. D (Arkansas)
UNIVERSITY LIBRARIAN:
Dr. Musa A. Auyo CLN, DLS, BA LS(BUK), MLS ABU), Ph. D (BUK)

P.M.B. 3011, Kano, Nigeria
Telephone: 08037003663
E-mail: buklibrarian17@yahoo.com

Our Ref: BUK/LIB/72

4ᵗʰ April, 2017

Mal. Mudassir A. Abule,
C/o Aminu Habibu,
University Library,
Bayero University,
Kano.

Dear Sir,

PERMISSION TO USE BUK LIBRARY AT MEDICAL COLLEGE (AKTH)

This is to convey the approval of the University Librarian for you to use our Medical College Library at Aminu Kano Teaching Hospital (AKTH) for your doctorate (Ph. D) Research work. The Head of Medical College Library at AKTH has been directed to note for compliance, please.

Thank you.

Yours faithfully,

Dirisu J. Momoh,
For: UNIVERSITY LIBRARIAN.

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Appendix 10: Introduction Letter (KASU)

UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI

28th March, 2017

The Medical Librarian,
Faculty of Medicine,
Kaduna State University,
Kaduna, Nigeria.

Dear Sir,

RE: Introducing Mr Mudassir Abubakar Abulea PhD Student at University of KwaZulu-Natal

My name is Mudassir Abuakar Abule, I am a doctoral student (Information Studies) at the University of KwaZulu-Natal, South Africa. The title of my PhD research is "Marketing of information resources and services in Special libraries with particular reference to the Medical Libraries of Public Universities in the North-Western geopolitical zone of Nigeria".

In view of the above, I therefore, seek the permission of medical librarian of this great University to grant me access and approval to carry out my research in the library. I will need a letter of approval from you, to present to my University because UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given me the approval.

I appreciate your support and understanding to grant me the permission to carry out my research in your library. If you need any further information, you may wish to contact my supervisor on the address below.

Thank you in advance for your understanding

Mudassir Abubakar Abule

Dr. Francis Garaba (Supervisor)
University of KwaZulu Natal
School of Social Sciences
PMB campus
Pietermaritzburg
Email: garaba@ukzn.ac.za
Tel: +27 33 260 5321
Cell: 0745135910

Appendix 11 Gatekeepers Letter (KASU)

KADUNA STATEUNIVERSITY LIBRARY
FACULTY OF MEDICINE
MEDICAL LIBRARY

29ᵗʰ March, 2017

TO: **MUDASSIR ABUBAKAR ABULE**

FROM: **MEDICAL LIBRARIAN**

SUBJECT: **APPROVAL LETTER TO CONDUCT RESEARCH AT**

                MEDICAL LIBRARY OF BDTH-KASU

With reference to your letter dated 28ᵗʰ march, 2017. I hereby wish to inform you that, your permission to conduct research at medical library of Barau Dikko Teaching Hospital, Kaduna State University (BDTH-KASU) is granted and approved. Therefore, the medical librarian wishes you the best. We do hope to welcome you at medical library of BDTH-KASU, Nigeria.
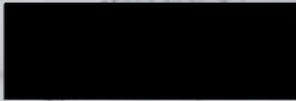
Abubakar Abdulkareem, *CLN, NLA, MLA*

Medical Librarian

Appendix 12: Introduction Letter (UDUS)

28th March, 2017

The University Librarian,
Usman Danfodio University Sokoto,
Sokoto state, Nigeria

Through:

The Medical Librarian,
Faculty of Medicine,
Usman Danfodio University Sokoto,
Sokoto state, Nigeria.

Dear Sir,

RE: Introducing Mr Mudassir Abubakar Abulea PhD Student at University of KwaZulu-Natal

My name is Mudassir Abuakar Abule,I am a doctoral student (Information Studies) at the University of KwaZulu-Natal, South Africa. The title of my PhD research is "Marketing of information resources and services in Special libraries with particular reference to the Medical Libraries of Public Universities in the North-Western geopolitical zone of Nigeria".

In view of the above, I therefore, seek the permission of the University librarian of this great University to grant me access and approval to carry out my research in the medical library. I will need a letter of approval from you, to present to my University because UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given me the approval.

I appreciate your support and understanding to grant me the permission to carry out my research in your library. If you need any further information, you may wish to contact my supervisor on the address below.

Thank you in advance for your understanding

MudassirAbubakarAbule

Dr. Francis Garaba (Supervisor)
University of KwaZulu Natal
School of Social Sciences
PMB campus
Pietermaritzburg
Email: garaba@ukzn.ac.za
Tel: +27 33 260 5321
Cell: 0745135910

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ABDULLAHI FODIYO LIBRARY COMPLEX
USMANU DANFODIYO UNIVERSITY, SOKOTO

MEDICAL LIBRARY
(Office of the Medical Librarian)

5th April, 2017

Attn: Mr Mudassir Abubakar Abule,
School of Social Sciences,
University of Kwazulu Natal,
South Africa.

RE: PERMISSION TO CARRY OUT RESEARCH IN THE MEDICAL LIBRARY

Sequel to your application dated 28th March, 2017 requesting for permission to carry out research in the Medical Library of our University. The Ag. University Librarian has granted you approval to conduct your research with access to our staff and resources.

You are therefore, advised to abide by the research ethics of our institution.

Thank you.

Mohammed M. Kpakiko
Medical Librarian
For: Ag. University Librarian

Appendix 14: Ethical Clearance

UNIVERSITY OF KWAZULU-NATAL

INYUVESI YAKWAZULU-NATALI

13 October 2017

Mr Mudassir Abubakar Abule 216015521
School of Social Sciences
Pietermaritzburg Campus

Dear Mr Abule

Protocol reference number: HSS/1793/017D
Project title: Marketing of information resources and services in Medical Libraries of public universities in the North-Western Geopolitical zone of Nigeria

Full Approval – Expedited Application

In response to your application received 18 September 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

cc Supervisor: Dr Francis Garaba
cc Academic Leader Research: Professaor Maheshvari Naidu
cc. School Administrator: Ms Nancy Mudau
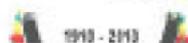
Appendix 15: Editor's Letter

Cecil Renaud Library
UKZN
Pvt Bag X014
Scottsville
3209

20 March 2021

To whom it may concern

This is to say that I have proofread all chapters of the PhD thesis of Mudassir Abubakar Abule in terms of checking grammar, spelling and typos, numbering; references etc. over a period of time and with most chapters saw the corrections as well. This project is now completed.
Yours faithfully
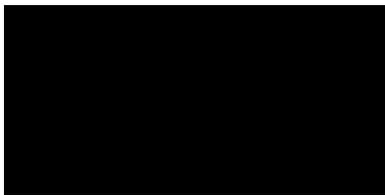
Rosemary Kuhn

Appendix 16: Krejcie and Morgan (1970) table for determining sample size

Table for Determining Sample Size from a Given Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Appendix 17 Codification Table for the Participants

S/N	Codes	Heads of Medical libraries
1	Participant A	Heads of Medical library A.B.U.
2	Participant B	Head of Medical library B.U.K.
3	Participant C	Head of Medical library UDUS
4	Participant D	Head of Medical library KASU
Total	**4 Participants**	**4 Heads of Medical libraries**