



Management of Electronic Resources for Effective Service Delivery in Medical Libraries in South South Nigeria

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Abstract

This paper survey the management of electronic resources in medical libraries in South South Nigeria. The survey was necessitated by the fact that electronic resources have become the driving force in the provision of quality service to medical library patrons. For electronic resources to be judiciously utilized, the management principles of planning, organizing, and controlling need to be effectively implemented in other to enhance remote access to the resources. A descriptive survey research design was adopted from five medical libraries consisting of 71 librarians sampled out of the 14 universities that were used for the study. Data for the study were generated using questionnaire and were presented in tables and analyzed using the mean. Findings shows among others that each of this medical library, developed policies to determine resources to be catalogued, encouraged the use of MARC, OCLC and OPAC are the most adequate methods of organising electronic information resources, application of Electronic Resources Control System is adopted to regulate abuse behaviour. The problems of electronic resources management is lack of managerial principles and computer literacy skills. Following these findings, recommendations were made to the effect that medical libraries should initiate training programs for library staff in collaboration with campus computer centers, adequate funding should be provided for the medical library to facilitate its services, medical librarians should design library websites to provide links to their electronic/online resources and web/internet based services.

Keyword: Management, Electronic Resources, Medical Libraries, Uniform Resource Link.

1.1 Introduction

The medical libraries according to U.S. National Library of Medicine in Ali (2010) are institutions established to serve physicians, health professionals, students, patients, consumers and medical researchers in finding health and scientific information to improve, update, access or evaluate

healthcare. Medical libraries are typically found in hospitals, medical schools, private industries and in medical associations. Today's medical library is required to have access to Medline, pub med, select/index and organized information on the web, print and digital journals collections and print reference books. In order to achieve effective and

efficient services delivery in medical profession, medical librarians must be conversant with management principles of planning, organizing and controlling of the available resources so as to enhance remote access to the information contents. Medical librarians are expected to re-define their traditional methods of managing e-resources by exploring new technique of managing e-resources which require putting various management principles into work.

The Major challenges hindering effective management of electronic resources is for library professionals to maintain professional skills, increased their knowledge base and develops new competencies. This also has necessitated the need for the acquisition of a broad range of skills necessary to function in an electronic environment.

Okoro C. and Mbagwu H. (2008) are of the view that electronic resources have become an inseparable part of medical libraries and researchers. They are often described as resources which are published through the electronic media and accessed through electronic media. They may be broadly defined as any peer-reviewed publications that are directly created and stored in electronic format either as standalone or a database for the purpose of delivery and retrieval electronically through various communication media for either networked access (through the internet) or offline access through the CD-ROM or floppy disk etc. in various formats like HTML, PDF, text, postscript, etc.

Chandler, A. (2003) described planning role in the library that it entails laying the platform on which all other roles are played. This involves defining the objectives, developing strategies, determining the staffing and library services, laying down policies and procedure for attaining the objectives and preparing budgets.

Kaur and Khantata (2012) is of the view that organising electronic resources

involves showing catalogers how to use MARC and AACR2 to create accurate and complete bibliographic descriptions of electronic resources to help students, catalogers, educators and any one new to these resources gain competency in describing and providing access to them. Breivold (2008) state that controlling involves evaluation and reporting of actual job performance. When these points are studied by the management, it is necessary to compare both things. This study or comparison leads to further corrective and preventive actions. The controlling function aims to check if the tasks being allotted are performed on time and according to the standards set by the quality department. While control of electronic resources is all about regular inspection of the activities of library staff, and as well establishing measures to prevent the abuse of electronic resources effectively.

Management of electronic resources makes it possible to completely streamline the entire electronic resources management process, from a review cycle for the resources record, to purchasing, and renewing resources all with one easy to use solution. Similarly, the task of managing, which involves planning, organizing, staffing, controlling and improving electronic information resources have never been more challenging than today. When one considers the extraordinary challenges of delivering information in multiple settings and that of ensuring that users have access to vast array of electronic information resources, it is no surprise that the management role demands tremendously more expertise skill, and commitment than ever before. Electronic resources managers are being asked to meet the need of patrons, communities, institutions, corporations, and the society at large; even as they face competing demand and limited resources.

1.2 Statement of the Problem

The essence of management of

electronic resources in medical libraries is to ensure that students, lecturers and other allied medical researchers have access to reliable, relevant and up to date published information that enhance the quality of teaching, learning and research. It is worthy to note that medical libraries have been accumulating heaps of information emanating from vendors, publishers and departments within and outside the institutions where they are located. As a result they are saddled with the responsibility of management of these electronic resources for the purpose of ensuring easy access to the information contents. Since the large volume of different electronic resources generated and disseminated on daily basis require more sophisticated handling in its management.

However, observation by the researcher revealed that management of electronic resources in medical libraries in South South are ineffectively managed by competent electronic resources managers/practitioners thereby rendered loss of vital information due to difficulty in retrieving and accessing electronic resources that will be useful to the academic institutions where they are established.

Moreover, ineffective management of electronic resources has led to difficulty in searching, system break down and a decline in current article especially in medical science institutions where physicians are expected to read an average of nineteen (19) up to date articles a day. This is why this study is set to look into the management of electronic resources in medical libraries in South South Nigeria.

1.3 Purpose of the Study

The main purpose of the study is to investigate the state of management of electronic resources in medical libraries in South South Nigeria. Specifically, the study seeks to:

1. Examine the critical elements in the planning process of management of electronic resources in medical libraries.
2. Identify the ways used in organizing electronic resources in medical libraries.
3. Determined the extent of control in management of electronic resources in medical libraries.

1.4 Research Questions

The following research questions were formulated to guide this study.-

1. What are the critical elements in planning of electronic resources in medical libraries in the South South of Nigeria?
2. What are the ways of organizing electronic resources in medical library in the South South of Nigeria?
3. What are the control measures employed in management of electronic resources in medical libraries in the South South of Nigeria?

2.1 Literature Review

It is pertinent to look at the empirical review from works of scholars as it relates to the field of study. On the management of records, a study was carried out by Nnadozie and Nnadozie (2006) on management of medical records in selected public and private Health institution in Owerri, Nigeria. The purpose of the study was to investigate the relationship between medical records and librarianship. The study were carried out by using 25 and 11 staff that work in private and public Heath institution respectively. A descriptive Survey design method was used for the study. The instrument of data collection used was questionnaire and the data were analyzed by using frequency count and mean. The research has a significant relationship with current work but with different approaches to management of resources.

Ahmed, Undie and Abbas (2020) attempt to explore the qualities of research productivity of academic staff given

availability and utilisation of e-journals in tertiary institutions in Nigeria. Two research questions were used and a single hypothesis was formulated to guide the study. The descriptive survey research design was adopted and the population of the study was two thousand four hundred and ninety-three (2493) academic staff, while four hundred and ninety-nine (499) academic staff were sampled using stratified and purposive sampling technique. A structured questionnaire was used for data collection. Data was analysed using descriptive statistics and one-way analysis of variance (ANOVA). The result showed that e-journals are available in all the institutions under study and that utilisation of e-journals has a significant influence on the research productivity of academic staff.

Bhatt (2012) undertook a study on an Analytical study of Medical College Libraries of Gujarat in the Age of information Technology. A case study approach was used in the study with a questionnaire based survey to elicit data collected from the respondents. The data collected were analyzed using descriptive statistics, frequency tables and simple percentage, mean and standard deviation. Findings revealed that IT infrastructure in medical college libraries of Gujarat is still in different stages of development, the status of library automation in these libraries was not encouraging. However, recommendations were made that; they should implement and develop ICT infrastructure, librarians should be trained/employed to manage the electronic resources. Hence the study will not be adopted.

Oguntayo (2013) undertook a study on Availability and use of information resources in medical libraries by Pre-clinical students in selected universities in Edo State. The purpose of the study was to find out the type of information resources in medical libraries in selected universities in Edo state.

The study focused on determining whether information resources are accessible to pre-clinical students in these universities. Descriptive survey design was adopted for the study. Questionnaire was used as instrument for data collection. Five research questions were formulated for the study. Results were analyzed using simple percentages. Textbooks, dictionaries, journals are some of the available information resources in the medical libraries. Findings revealed that low computer literacy to browse the internet was the major problem associated with the use of information resources. The study concludes that creating awareness of information resources is essential for maximum utilization by pre-clinical students.

Dafiaghor (2012) carried out a study on Problems and Prospects of electronic resources usage in Nigeria Academic Libraries. A survey design was used for the study. The population includes all academic libraries in Nigeria. A sample of 20 subjects (both staff and students) was randomly selected by the researcher. The questionnaires were made of two sections A and B respectively. The simple percentage method was used to analyze the data collected with the instrument. Findings indicated that acquisition cost, maintenance cost, erratic power supply and lack of information retrieval skills for exploiting electronic resources are major problems militating against the use of electronic resources in Nigerian academic libraries, rather prospectively, electronic resources would be used unendingly in lecture rooms; electronic resources would also be used to convert practically all manual academic libraries to virtual libraries; electronic resources would never replace print resources, and that there is even likely to be over reliance upon electronic resources by Nigerian libraries.

Abdulmunin (2010) undertook a study on awareness and use of electronic resources by academic staff of the University of Ilorin,

Nigeria. His purpose was to examine the awareness level and the pattern of usage of electronic resources by academic staff of university. A survey research approach was adopted using random sampling technique, including questionnaires to elicit data from 812 academic staff. Descriptive statistics including frequencies, count, and percentage were used in reporting the findings. Slow internet access, power outage and non availability of resources relevant to their information needs were indicated as problems to the usage of library electronic resources. Based on the findings the author recommended that university library should re-orientate the academic staff of the university on how to access the electronic resources/databases subscribed to by the university. The internet facilities of the university should be improved to facilitate easy access to the electronic resources of the university. Hence the research design and method of data analyzed are suitable and shall be adopted for the current work.

3.1 Research Methodology

A descriptive survey research design was adopted for the study with a population of seventy one (71) respondents, sampled out of the 14 universities that were used for the study which made up of 38 professional and 32

Para-professional librarians drawn from five medical libraries in universities South South, Nigeria. From the information obtained from a visit to the medical libraries under study, they are distributed as follows: University of Calabar has 3 professionals and 8 paraprofessionals which give a total of eleven (11) respondents. University of Uyo has 5 professionals and 10 paraprofessionals totalling fifteen (15) respondents. University of Port Harcourt has 3 professionals and 6 paraprofessionals given a total of nine (9) respondents. Delta State University has 7 professionals and 10 paraprofessionals with a total of seventeen (17) respondents. While University of Benin has 8 professionals and 11 paraprofessionals totalling nineteen (19) respondents. The questionnaires consist of 76 items used as instrument to collect data. They were presented in tables and analyzed using the mean. The area of the study is South South geopolitical zone consist of six states which include Akwa Ibom, Bayelsa, Edo, Delta, River and Cross River.

4.1 Results

The researchers used colleagues from the universities under study to distribute and collect the questionnaires from the universities covered.

Table 1: Mean Rating and Standard Deviation of Responses on the critical elements in planning electronic resources in medical libraries in the South-South of Nigeria.

S/N	Item Statement	University Type				N = 70		Dec.
		State		Federal		Overall		
		\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	
1	Involves developing a prioritized list of goals for electronic resources to guide their work	3.76	0.43	3.87	0.34	3.84	0.37	VHE
2	Adequate planning ensures proper organization of electronic resources	3.82	0.39	3.81	0.39	3.81	0.39	VHE
3	Developing policies to determine which resources should be catalogued and placed in contain management	3.47	0.62	3.91	0.29	3.80	0.43	VHE
4	Ensuring coordination between actual performance to achieve organizational goals	3.59	0.50	3.87	0.34	3.80	0.40	VHE
5	Developing strategies to facilitate control of electronic resources	3.59	0.50	3.81	0.39	3.76	0.43	VHE

6	Creating a small electronic resources committee of key players from various division of the library	3.59	0.50	3.79	0.40	3.74	0.44	VHE
7	Laying down policies and procedure for attaining the objectives and executing budgets	3.59	0.50	3.79	0.40	3.74	0.44	VHE
8	Anticipating future problems and adopting necessary measure and make policy change	3.65	0.60	3.75	0.47	3.73	0.51	VHE
9	Adopting necessary preventive measures and makes policy change on time	3.59	0.61	3.75	0.43	3.71	0.48	VHE
10	Calculating the cost of determining library needs in relation to the economic and social development of the library	3.71	0.58	3.62	0.48	3.64	0.51	VHE
11	Thinking of in advance on the electronic resources to use	3.06	0.65	3.60	0.49	3.47	0.58	HE
12	Redefine value and services of electronic resources	3.12	0.69	3.30	0.66	3.26	0.67	VHE
Grand Mean		3.54	0.20	3.74	0.21	3.69	0.23	VHE

Key: VHE – Very Highly Effective, HE – Highly Effective, E – Effective, NE – Not Effective

Result presented in Table 1 shows the mean and standard deviations of respondents on the effectiveness of planning electronic resources in medical libraries in the South-South of Nigeria. Result showed that items 1 - 12 had mean ratings of 3.26 - 3.84, with standard deviations of 0.67 - 0.37, respectively. The mean ratings are above the criterion level of 2.50 for accepting an item; this means the respondents agreed that the planning of electronic resources in medical libraries in the south-south of Nigeria is Very Highly Effective.

The planning of electronic resources in medical libraries include; developing a

prioritized list of goals for electronic resources to guide work, adequate planning to ensures proper organization of electronic resources, creating a small electronic resources committee of key players from various division of the library, laying down policies and procedure for attaining the objectives and executing budgets, as well as redefine value and services of electronic resources, among others. The grand mean of 3.69 with a standard deviation of 0.23 means the planning of electronic resources in medical libraries in the south-south of Nigeria is Very Highly Effective.

Table 2: Mean Rating and Standard Deviation of Respondents on ways of organizing electronics resources in medical library in the South-South of Nigeria.

S/N		University Type				N = 70		Dec.
		State \bar{x}	SD	Federal \bar{x}	SD	Overall \bar{x}	SD	
1	Organizing internet resources independently of any library agency	3.65	0.49	3.91	0.29	3.84	0.36	SA
2	Keeping track of available electronic resources to ensure consistency	3.82	0.39	3.83	0.37	3.83	0.38	SA
3	Descriptions of bibliographic surrogate for electronic resources content	3.65	0.49	3.87	0.34	3.81	0.39	SA
4	Ensuring that technical staff will collaborate with librarians to properly organized the electronic resources	3.76	0.56	3.77	0.42	3.77	0.45	SA
5	Showing catalogers how to use MARC and AACR2 to create accurate and complete bibliographic description	3.59	0.50	3.81	0.39	3.76	0.43	SA

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6	Online computer library catalogue	3.71	0.47	3.77	0.42	3.76	0.43	SA
7	Online library catalogue	3.65	0.49	3.70	0.46	3.69	0.46	SA
8	Computer aided and instruction software	3.35	0.70	3.75	0.47	3.66	0.56	SA
9	Setting up a classification structure to aid organization of electronic resources	3.53	0.51	3.68	0.51	3.64	0.51	SA
10	Clinical assist software	3.53	0.62	3.64	0.59	3.61	0.59	SA
11	Online public access catalogue	3.47	0.51	3.62	0.48	3.59	0.49	SA
12	Ensuring that the system will consist of features/modules that accommodate activities from selection ordering acquisition processing storage etc.	3.47	0.51	3.55	0.60	3.53	0.58	SA
13	Medical electronic journals/books	3.35	0.49	3.53	0.54	3.49	0.53	A
14	Harnessing online and offline format of e-resources	3.29	0.77	3.53	0.72	3.47	0.73	A
15	Ensuring federated searching, catalogue records and authentication of e-resources	3.41	0.71	3.49	0.66	3.47	0.67	A
Grand Mean		3.55	0.24	3.70	0.27	3.66	0.27	SA

Key: SA – Strongly Agree, A – Agree, D – Disagree, SD – Strongly Disagree

Result presented in Table 2 shows the mean and standard deviations of respondents on ways of organizing electronics resources in medical library in the South-South of Nigeria. Result showed that items 1 - 15 had mean ratings of 3.47 - 3.87 with standard deviations of 0.67 to 0.36 respectively. Since the mean ratings are above the criterion level of 2.50 set for accepting an item, this means the respondents agreed on the following as ways of organizing electronics resources in medical library, these are; descriptions of bibliographic surrogate for electronic resources content, organizing internet resources independently of any library

agency, showing catalogers how to use MARC and AACR2 to create accurate and complete bibliographic description, online computer library catalogue, medical electronic journals/books, setting up a classification structure to aid organization of electronic resources and ensuring federated searching, catalogue records and authentication of e-resources etc.

The grand mean of 3.66 with a standard deviation of 0.27 means the respondents strongly agreed that items in table 2 are ways of organizing electronics resources in medical library in the South-South of Nigeria.

Table 3: Mean Rating and Standard Deviation of Respondents on the control measures employed in managing electronic resources in medical libraries in the South-South Nigeria.

S/N		University Type				N = 70		Dec.
		State		Federal		Overall		
		\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	
1	Establishing measures to prevent abuse of electronic resources program	3.76	0.43	3.98	0.13	3.93	0.25	SA
2	Regular inspection of activities of staff and students on the use of e-resources	3.88	0.33	3.92	0.26	3.91	0.28	SA
3	Effective technical support by coordinating computing services	3.71	0.47	3.92	0.26	3.87	0.33	SA
4	Creating a system (local tools) for managing specific aspect of e-resources	3.65	0.60	3.81	0.44	3.77	0.48	SA
5	Controlled must be according to results available	3.53	0.62	3.85	0.41	3.77	0.48	SA
6	Collaborate with users and approach their task creatively	3.59	0.50	3.81	0.39	3.76	0.43	SA

7	Using software to keep tracks of internet based resources such as e-journals, e-books, e-database	3.59	0.50	3.79	0.40	3.74	0.44	SA
8	Evaluation and reporting of actual job performance	3.53	0.51	3.77	0.42	3.71	0.45	SA
9	Answering questions concerning log in, password and user ID information to ensure remote access to the e-resources	3.35	0.49	3.81	0.39	3.70	0.46	SA
10	Maintaining current/appropriate vendor contact information	3.47	0.51	3.74	0.44	3.67	0.47	SA
12	Check if task performed are according to standard set by the vendor	3.59	0.50	3.70	0.46	3.67	0.47	SA
13	Clear knowledge of license subscription and update renewal	3.65	0.49	3.68	0.47	3.67	0.47	SA
14	Integrating library management system to eliminate double keying	3.41	0.50	3.74	0.48	3.66	0.50	SA
15	Suspending any user access privilege if any abuse behaviour is monitored	3.24	0.56	3.79	0.49	3.66	0.56	SA
16	Controlled all subscribed electronic resources within the medical library internet provider range	3.53	0.51	3.62	0.52	3.60	0.52	SA
17	Installing resources that will analyzed vast electronic repositories of clinical collection	3.41	0.61	3.64	0.55	3.59	0.57	SA
18	Ensuring a separate database store on local computer or network	3.29	0.68	3.68	0.51	3.59	0.57	SA
	Grand Mean	3.54	0.28	3.78	0.22	3.72	0.26	SA

Key: SA – Strongly Agree, A – Agree, D – Disagree, SD – Strongly Disagree

Table 3 shows the mean and standard deviations of respondents on the control measures employed in managing electronic resources in medical libraries in the South-South Nigeria. Result showed that items 1 - 17 had mean ratings of 3.59 - 3.93 with standard deviations of 0.25 to 0.57 respectively. Since the mean ratings are above the criterion level of 2.50 set for accepting an item, this means the respondents agreed on the following as control measures employed in managing electronic resources in medical libraries, these include; establishing measures to prevent abuse of electronic resources program, regular inspection of activities of staff and students on the use of e-resources, effective technical support by coordinating computing services, using software to keep tracks of internet based resources such as e-journals, e-books, e-database, evaluation and

reporting of actual job performance, integrating library management system to eliminate double keying as well as ensuring a separate database store on local computer or network among others.

The grand mean of 3.72 with a standard deviation of 0.26 means the respondents strongly agreed that items in table 3 are the control measures employed in managing electronic resources in medical libraries in the South-South Nigeria.

5.1 Discussion of Findings

The data collected and analyzed along this line shows that management of the medical libraries in South South Nigeria, developed a prioritized list of goals for electronic resources, create small electronic resources committee, lay down policies and procedure for attaining objectives, develop

policies to determine resources to catalogue, prepare and properly execute electronic resources budgets; anticipate future problems, adopt necessary measures and make policy change as well as matching recommendations from faculties based on the available funds. In creating a committee of key players in a library electronic resources management system, this actually negates what a respondent from the University of Calabar, said that they are not always included in the management and organization of their electronic resources. That it is the sole responsibility of the system analyst and the vendor. While a respondent from the University of Uyo, concur with the view that creating a committee of key players is to enable them collect recommendation from faculties as well as correlate them with available resources in the library so as to avoid duplication. Since most of the database contain resources that are available in another database. In a similar view, a respondent from University of Port Hacourt said that the essence of recommendation from the faculties is to enable the medical librarian select information resources (database) that conform with the interest of the users.

All the items listed as method of organising electronic information resources in medical libraries are considered adequate. They include organising the bibliographic surrogate of electronic resources contents, organising internet resources independent of cataloguers, Online Computer Library Catalogues, Online Public Access Catalogues, and setting up a classification structure to aid organization of electronic resources as well as clinical assist software. This is in agreement with what a respondent from University of Port Harcourt, said that the Online Public Access Catalogues assist them in organizing their electronic resources base on faculties in other to ensure easy access to the main content of the resources by the students. While another respondent in Delta

State University said that inadequate knowledge of the system analyst with regards to organising the bibliographic surrogate of the electronic resources contents, has actually made organization difficult. And as such it tends to hinders easy access to the original content of the information resources. In a related view, a respondent from University of Calabar said the system analyst is in charge of organization of the electronic resources as well as supervision and monitoring and supervising of users on regular intervals to avoid abuse behavior, network problems and system breakdown.

The analysis here shows the mean and standard deviations of respondents regarding the control of electronic information resources by staff, students and researchers in medical libraries. Results showed that regular inspection of activities of staff and students on the use of electronic information resources will ensure effective control on the usage of these resources. This was because the mean ratings for item 1-17 were above the criterion level for accepting an item. A respondent from University of Benin agreed that, regular inspection of electronic resources will ensure adequate control on the use of these resources by monitoring and regulating any abuse behaviour from users. Another respondent in University of Uyo also agreed that electronic information resources can be controlled through regular inspection of activities of staff, establishing measures to prevent abuse of electronic programmes, effective technical support by coordinating computing services, using software to keep track of internet resources such as e-journals, e-books, e-database, evaluating and reporting job performance, integrating library management system to eliminate double keying, maintaining current/appropriate vendor contact information, answering queries on log in, pass word and users ID information to ensure remote access to the electronic resources information contents. The key

respondents interviewed were also of the same view that; “our electronic resources management system are pass worded to avoid abuse of usage, we also have rules on download process and the use of external devices not allowed. While a respondent in Delta state University has this to say; “Our internet Provider (IP) base has bandwidth access and it is restricted within a particular Local Area Network.

Conclusion

The planning and organizational workflow of most medical library structure is heavily influenced by the print workflow and little attention has been given to re-forming planning, policies and organization of these resources. Planning, policy making and documentation workflow and procedures are intertwined activities that are hallmarks of professionals. Ignoring them, waiting for the ideal situations to arise, and hoping for best practices to arise will not prevent the inevitable need for librarians to begin treating electronic resources management now before the perceived chaos of electronic resources take over and inhibit users services access.

Medical libraries must regularly work towards effective planning, organising and controlling in areas of electronic resources management. These will enable the learners to depend largely on the quality of academic usefulness and services that the library can offer electronically. The strength of electronic information resources depends on the relationships libraries develop and maintain with creators, publishers, and aggregators of e-resources, as well as with those who use, learn from, and evaluate these resources. Providing ongoing technical, reference, and instructional support to e-learners required that medical libraries re-define their values and services, collaborate with their users, and approach their task creatively.

Recommendations

These recommendations are made from the findings, discussion and implications of this study.

1. It is essential for medical libraries to initiate training programs for library staff in collaboration with campus computer centers, departments of studies in library and information science, and medical library associations in the country.
2. It is important for medical librarians to design library websites to provide links to their electronic/online resources and web/ internet based services.
 - a. University management in collaboration with the central library should accord medical libraries adequate autonomy to manage their resources in areas of planning, organising and control of their resources. Most of the medical colleges libraries derive their management from the central or main University library.
 - b. Adequate funding should be provided for the medical library to facilitate its services. The medical libraries should also explore alternative sources of revenue to argument her allocation.
 - c. Thus, informing the faculties of what is possible to acquire based on the available funds and how the resources would be used is imperative.

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