

Collection management for user satisfaction at Masinde Muliro University of Science and Technology library, Kenya

Peter Lucheli Ngome^{1*}

Jane Maina²

Wekalao Namande³

^{1*}plucheli@mmust.ac.ke

^{1,2,3}Kisii University, Kenya

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ABSTRACT

Academic libraries support curriculum and research, with collection management encompassing functions like selecting, acquiring, storing, and maintaining collections cost-effectively. However, changing demands, budgets, and technology keep libraries on the move, potentially leading to user dissatisfaction. The purpose of the study was to establish the status of collection management on user satisfaction at Masinde Muliro University of Science and Technology Library, Kenya. The study was guided by expectancy-disconfirmation theory. The study adopted a descriptive design, and the target population was library managers, section heads, library staff, and postgraduate students. Census sampling was used to select the deputy university librarian (DUL), technical staff, circulation staff, and reference librarian, and then a simple random sampling method was applied to postgraduate students' strata. The sample size for the study was 105 respondents. Questionnaires were administered to the postgraduate students and library staff, while an interview schedule was used to collect data from the deputy university librarian. Qualitative data was analyzed thematically, while quantitative data was analyzed using descriptive statistics. The study found out that MMUST Library has a well-established collection of print and electronic resources but faces deficiencies in multimedia and audio-visual materials. A robust institutional policy was in place; however, there were deficiencies in some processes like weeding practices, essential for maintaining a relevant collection. The library suffers from inadequate budgetary allocations and funding that affect its optimum operations. The study concluded by underscoring the significance of a well-balanced and diversified collection enhancing user satisfaction. The study recommended an improvement in collection management for user satisfaction and enhancement of digital collections to serve diverse academic disciplines.

Keywords: Academic Library, Collection Management, MMUST Library, User Satisfaction

I. INTRODUCTION

Handling and organizing the collections is a key element of library and information science by ensuring the selection, acquisition, evaluation, preservation and occasional removal of materials needed by users. The way information resources are managed affects how users feel, because users expect to receive important, diverse and organized information when they need it (Evans & Saponaro, 2012). In universities and other scholarly libraries, managing the collection well supports teaching, learning and research activities.

The world over, collection management has changed a lot due to rapid digital progress and what people now expect from libraries. Many academic libraries are switching to digital and mixed formats to make resources more available and to fit the changing ways users look for information (Johnson, 2018). The International Federation of Library Associations and Institutions (IFLA) asserts that the best way to manage a collection is to focus on the user and make sure the resources match the academic and research needs of the institution (IFLA, 2022).

Tenopir et al. (2019) found that the satisfaction of users in academic libraries is largely affected by the availability of digital resources, how easily they can access them and the quality of the collections. According to the research, libraries that use feedback from users and acquire materials based on their needs are more likely to make users happy.

Academic libraries in Africa are challenged by a lack of funds, poor infrastructure and not enough qualified people which makes it difficult to manage collections well and disappoints users (Ocholla & Bothma, 2019). Many university libraries in sub-Saharan Africa have a hard time updating their collections because it is costly to buy the latest academic resources. Amusa and Adekunmise (2003) recommended that faculty members should help pick materials and that the library should be given a sufficient budget. A study in South Africa by Macha and De Jager (2020) found that library users are more satisfied when the collections are relevant, accessible and up-to-date. The study encouraged African universities to join library consortia which would help them access more digital resources and develop their

collections. In addition, open access initiatives in Africa have become more common, allowing people to access scholarly resources more easily and making them happier with the service (Kakai, 2021).

In Kenya, university libraries are working hard to improve how they manage their collections to make users happier. As Makori and Njiraine (2022) explain, digital repositories and electronic resources available by subscription have greatly improved the access to scholarly works. Even so, there are still issues with limited ICT infrastructure, limited funds and a slow acceptance of new collection management practices.

Nyamboga et al. (2023) found in their study that Kenyan university libraries provide digital resources, but many libraries still face issues with old print items, poor cataloging systems and not enough education for users. According to the research, libraries should use evidence and regularly check what users need to ensure their collections fit with academic and research requirements.

At MMUST, making sure that collection management works well is crucial for students, lecturers and researchers to access up-to-date information resources. Although efforts are being made to make resources available online and build the collection, there are still concerns about how accessible they are, if there are enough resources and how satisfied users are. The purpose of this investigation was to analyze how collection management is done at MMUST and how it affects user satisfaction, so improvements could be suggested.

1.1 Statement of the Problem

Learning, teaching and research at schools and universities rely on academic libraries for relevant and fresh information. Managing of collections which involves choosing, acquiring, organizing, preserving and removing information resources, is vital for satisfying users within academic libraries. Even so, many university libraries in countries like Kenya face issues in meeting user needs because they lack good collection management, experience financial difficulties and do not use their resources well.

Even though MMUST has invested a lot in its library collection, most of the budget is still used to buy print books, not new technology-based resources (MMUST Library Annual Report, 2020). As a result, certain patrons find it unsettling to visit or utilize the library as a consequence of the collections divide. Users identified the disparity between print and electronic resources as one of the obstacles they encounter (MMUST library annual report 2020). If this situation persists, a large number of library clients will be put at a disadvantage; they will no longer be able to remotely access electronic resources to which the library has subscribed, as was previously the case. This interferes with study and other scholarly activities since the desire and right to access information is jeopardized. In light of this, the study is required to establish the impact of collection management on user satisfaction in academic libraries.

1.2 Research Objective

The objective of the study was to establish the status of collection management on user satisfaction at Masinde Muliro University of Science and Technology Library, Kenya.

1.3. Research Question

What is the impact of collection management on user satisfaction at MMUST library?

II. LITERATURE REVIEW

2.1 Theoretical Review

This research was guided by Oliver's (1980) expectancy-disconfirmation theory

2.1.1 Expectancy-Disconfirmation Theory

The Expectancy-Disconfirmation Theory (EDT) was proposed by Richard L. Oliver in 1980. This theory explains customer satisfaction based on the comparison between expectations and actual experiences. If performance exceeds expectations (positive disconfirmation), satisfaction increases; if it falls short (negative disconfirmation), dissatisfaction occurs. Consumer responses to the evaluation of a perceived discrepancy between the pre-conceptualized performance standard and the actual performance of the service subsequent to the customer's experience with it constitute this theory (Cristobal, 2018). Thus, contentment is generated and performance surpasses expectations (or other preconceived standards) in a manner that generates positive disconfirmation. Departure from anticipated performance (or other predetermined benchmarks) leads to negative disconfirmation and subsequent discontentment (Cristobal, 2018). Disconfirmation pertains to the incongruity that arises between two concepts, specifically the disparity between a performance that was anticipated or desired prior to consumption and the performance that was actually achieved (Spreng & Page, 2003). Therefore, it can be concluded that disconfirmation occurs when the perceived level of any attribute deviates from a standard (such as desires or expectations). Oliver (1980) posits that disconfirmation is assessed as an independent cognitive state, perceived subjectively by the consumer, and thus amenable to measurement

independently of its precursors. Conversely, confirmation, positioned midway through the model, signifies moderate levels of satisfaction or apathy. To elaborate further on the theory, consumers have preconceived notions that influence their decision to utilize a resource or service prior to doing so. Following utilization, consumers assess the service's performance in relation to predetermined criteria in order to determine whether a particular resource or service fulfills their requirements. As alluded to previously, confirmation, which is a standard zone situated in the middle of the model, is reached when expectations and performance align, resulting in moderate satisfaction or indifference. As indicated previously, greater satisfaction moves in the direction of positive disconfirmation from the moderate satisfaction or indifference standard zone, whereas dissatisfaction moves in the direction of negative disconfirmation from the defective zone, which is a standard zone situated at the opposite end of the continuum. The variables of dissatisfaction, satisfaction, astonishment, and surprise, as proposed by the model, represent the results of customers' experiences and emotions subsequent to utilizing a specific service or resource.

2.2 Empirical Review

The holdings of a university library ought to be sufficient to facilitate and support the entirety of the institution's research initiatives and instructional requirements; furthermore, they should be systematically and consistently curreted; and finally, they should comprise a wide range of recorded information in its various formats (Coyle, 2006). Therefore, in order to ensure efficient content administration, academic librarians must be cognizant of the fact that various fields are approached differently; consequently, the librarian should be preoccupied with the content that is to be incorporated into the library's collections.

Collection development policies (CDPs) serve as critical frameworks that direct the selection, acquisition, and management of library resources, thereby ensuring that collections align with the changing needs of users. Numerous studies in various regions have investigated the effects of CDPs on the management of library resources. Braman (2011) asserts that a "policy" is a clear set of rules or actions that have been publicly agreed upon by a group of people, an organization, or the government. In the absence of a policy statement, personal bias and abuse are inevitable. The objectives of a given policy can drastically differ based on the context and the organization from which it originates.

In South-South Nigeria, Dime (2023) used a quantitative descriptive survey design to assess how much librarians use CDPs to manage electronic information resources. It was found that librarians are highly involved in CDP, underlining the need for better training and growth to manage electronic resources. Amarasekara and Marasinghe (2020) carried out a study at the Open University of Sri Lanka to determine how satisfied users were with the library's facilities, staff, resources, services and website. Three hundred and fifty-seven students and staff from the Colombo regional centre were chosen for the study by purposive sampling. Data were gathered by means of a structured questionnaire. Users mainly used the library for reading, looking up information, using computers and borrowing or returning books. Respondents were very happy with the staff, moderately pleased with the services and liked the website and facilities.

Onwukanjo (2017) explored the relationship between information resources and how satisfied undergraduate students at the Federal University of Technology, Minna are. The researchers used surveys and questionnaires to measure user satisfaction, record the resources available, check their usefulness, determine how easy it is to use them and find out about any problems accessing them. A group of 376 students (2.2% of the total population) was randomly chosen for the study. Data were examined by using frequencies, percentages and the T-test at a significance level of 0.05. Researchers found that the low satisfaction of users was because of the old and limited resources, no access to current information, poor facilities for printing and copying and inefficient ways to find materials.

Abdulahi et al., (2020) carried out a survey to see how well information resources in public libraries in Katsina State are used and how satisfied people are with them. The research included 120 people, some who were staff and some who were users and information was gathered using questionnaires. 23 library branches were chosen from three senatorial zones using cluster and simple random sampling. The data was analyzed by using frequency tables, percentages and Chi-square tests. It was found that the six main public libraries in the state had insufficient and old information resources. Many users went to libraries to read newspapers or study for tests which indicates they were not happy with the services offered. The main problems found were outdated materials, inadequate funding, unpredictable power supply and not enough staff. The study ended by proposing that the library should get new information resources, remove outdated books and give better support to improve its services and attract more users.

Nam and Choi (2011) studied how Korean university students felt about the e-book services offered in their libraries. They looked at how the services were being used, how satisfied people were and the quality of the services. The research showed that only 2.93% of customers were satisfied which suggests that service management and accessibility are not up to standard. Higher satisfaction was reported by students who used the library more often and at higher academic levels and freshmen were the least satisfied. Having high-quality content in e-book services was found to be the most important factor for customer satisfaction. The study advised on better public relations, teaching users and keeping the content diverse and updated to increase use of the e-book service.

Kim (2008) investigated how satisfied and loyal users of university libraries were. The survey of library users in this paper measured satisfaction and loyalty using adapted versions of the European Customer Satisfaction Index (ECSI). To study what library patrons expect, a survey was made to collect data that could be used in managing the library. According to the survey, users expect the library to be a certain way and to hold a collection of printed materials. Providing information resources and services that fit the needs of academic courses is the best way for university libraries to help their patrons. Igben (1993) states that a library is most useful when its services meet the needs of its users. Edem and Edem (2002) studied how the University of Calabar library users accessed reference resources, collecting data from 250 people. About 50.8% of the participants were happy with the reference services and 29.2% were not sure. The results show that the library's reference materials were adequate for what users required.

Generally, the studies found that library users in different parts of Africa are quite happy with the services provided. In their study, Motiang et al. (2014) revealed that students at the University of Limpopo in South Africa were mostly happy with the library's hours, loan periods and access to both print and electronic books and journals. According to Iguehi and Adegbilero-Iwari (2014), people using public libraries in South West Nigeria were happy with the way materials were arranged and the ability to use OPACs to find what they needed. In a similar manner, Ijiekhuamhen et al. (2015) observed that handling electronic resources such as digitized exams and DVDs, helped users and improved the use of reference services. All in all, these studies prove that good library services lead to satisfied users and more people using the library.

Donati and Festo (2024) carried out a study to evaluate how satisfied users are with library services in Tanzanian universities. The research focused on checking the current level of library services, how happy users are and what effect these services have on overall satisfaction. A total of 397 individuals, including students, academic staff and library staff, were randomly chosen from five universities and 68 department heads were chosen as key informants. Data were gathered by using questionnaires and interviews and the quantitative data were analyzed in SPSS, whereas qualitative data were studied through content analysis. The study found that the most popular services were circulation (22.2%), internet access (15.6%) and reference services (14.9%). At both the 5% and 1% levels, user satisfaction was significant and 53% of respondents said the information they needed was easy to get.

Kinya and Muthee (2022) examined how service quality affects customer satisfaction in university libraries in Kenya, specifically at Machakos and Kitui Universities. The purpose of the study was to discover the obstacles students experience during service interactions, find out what extra services are needed and study how service quality affects satisfaction. With the SERVQUAL model and its 22 items describing five aspects of service quality, the researchers used a cross-sectional descriptive design to study third and fourth-year undergraduate students. 161 participants were chosen using systematic random sampling and the data were gathered and analyzed using both descriptive and inferential statistics. It was found that students appreciated having a librarian help them personally, tidy and well-groomed staff, accurate records and fast answers to their questions. Regression analysis found that service quality is positively related to user satisfaction which means that when service quality improves, users become more satisfied.

Nyakwebwa et al. (2022) looked at what users at four public universities in western Kenya expect and need from library information services. The study used questionnaires filled out by 342 respondents (students and lecturers) and interviews with 10 library staff to find out about satisfaction, problems and successful methods in providing services. Many users were satisfied with the libraries, but some mentioned that there were not enough information resources, the budget was being cut, facilities were not up to standard and there were not enough skilled staff. It was suggested that library budgets should be increased to ensure there are more resources and better service.

III. METHODOLOGY

3.1 Research Design

The study utilized a descriptive design. The descriptive research design is especially appropriate since it emphasizes a methodical articulation of the attributes of a particular phenomenon or population, eschewing variable manipulation. It is particularly suited for comprehending prevailing conditions and behaviours. Furthermore, descriptive research is characterized by its non-invasive nature and the absence of variable manipulation, rendering it ethically robust and appropriate for investigations focused on observing and analyzing pre-existing conditions. Utilizing a descriptive design facilitated a thorough exploration of these practices within the unique context of the institution.

3.2 Location of the Study

The research was conducted at the library of Masinde Muliro University of Science and Technology. One of the two well-established academic libraries in the western region, the MMUST library contains a variety of print and digital materials. The study location was most representative of the library institution due to its collection, and the results of the study could be generally applied to other university libraries to a significant degree. The study area was selected due to its inclusion of collections utilizing both established and emerging technologies.

3.3 Target Population

The target population for this study was carefully selected to ensure a comprehensive understanding of the status of collection management on user satisfaction at Masinde Muliro University of Science and Technology (MMUST) Library, Kenya. The inclusion of 430 registered postgraduate students was crucial, as they represent a significant segment of library users who rely heavily on information resources for academic research and scholarly work. Their feedback provided valuable insights into the adequacy, management, and relevance of the library's collection. Additionally, the involvement of key library personnel, including the deputy university librarian, five sectional heads, four technical staff, six circulation staff, one reference librarian, and two virtual library staff, ensured a holistic examination of collection management practices. These professionals play a vital role in curating, maintaining, and facilitating information resources management, making their perspectives essential in assessing how effectively the library meets user needs..

3.4 Sample Size and Sampling Procedures

The statistical procedure that was chosen for the study was simple random sampling, which ensures that all members of the population have an equal opportunity of being selected as samples. It is an essential method for collecting information and drawing conclusions about a sizable population. A lesser and more manageable proportion of the population that is amenable to study and analysis is represented in the sample. A sample of 86 post graduate students were selected using a 20% suggestion by Mugenda and Mugenda (2003). Census sampling procedure was used to select all the staff who included the Deputy University Librarian, five section heads, and sixteen other staff members, as a result of the tiny number of respondents. The population was also purposively selected because it had the characteristics related to the information being sought. The students were selected randomly.

3.5 Research Instruments

The data collection instruments used in this study were questionnaires and interview schedules. Both open-ended and closed-ended questionnaires were utilized to collect quantitative and qualitative data for the study. The use of questionnaires was favoured over other methods due to their usability when dealing with large data sets. Questionnaires were preferred because of their convenience to the respondents who only needed to pick on the most appropriate constructs as response. Besides, questionnaires enabled the researcher to elicit large sets of data within a minimum period hence its preference by the researcher.

Interview schedules were meant for collecting qualitative data from the Deputy University Librarian and sectional heads. The utilization and implementation of an interview schedule as part of the data collection procedure in this study presented a remarkable opportunity to solicit and amass information and thoughts from participants regarding a vast array of topics.

3.6 Reliability and Validity of the Study

3.6.1 Validity of the Research Instruments

The validity of instruments was established in this research through a pilot study conducted at the Kibabii University Library. The responses to the pilot study provided evidence of the instrument's validity. The pilot study utilized fifteen questionnaires, of which only library personnel were intended to complete, and the University Librarian was the target of an interview schedule. Validity was done by departmental staff who are experts in the area of study.

3.6.2 Reliability of the Research Instruments

The instrument reliability was assessed using a pilot study. The researcher distributed fifteen questionnaires at random to a population with similar characteristics to the original sample. Cronbach's alpha was used to determine the instrument's dependability index. The reliability index was calculated using the guidance provided by (Orodho 2012), which states that devices with a reliability index of 0.70 or higher are considered reliable for data gathering. The Cronbach's (α) test was used to verify data reliability and ensure accuracy of analysis results.

3.7 Data Analysis

Data analysis involves the systematic examination of data in order to extract valuable insights that can subsequently be implemented to inform decisions (Johnson & William 2023). The statistical package for social sciences (SPSS) version 22.0 was utilized to analyze the quantitative data. The results were presented in descriptive tabular format, including frequency tables, and proportions (percentages), In addition to pie charts and figures, the data was presented in the form of frequency tables and frequency distribution tables.

The information obtained through the use of interview schedules was qualitative in nature. The data were subjected to a thematic analysis, wherein the prevailing themes were identified and illustrated via direct quotations, narratives, and interpretations. To accomplish the aforementioned, participants were coded to ensure confidentiality.

IV. FINDINGS & DISCUSSION

4.1 Demographic Information of Respondents

4.1.1 Period Worked in the Library

The study sought to establish the period the library staff have been working in the Masinde Muliro University of Science and Technology Library. The findings are shown in Table 1.

Table 1

Period Staff have been Working in the Library

Period in Years	Frequency	Percentage
1-4 years	1	5%
5-10 years	3	14%
11- 15years	11	52%
16 and above	6	29%

The data presented in Table 1 indicates that most of the staff have worked for over 10 years at MMUST Library with 52 % of the respondents having worked for 11-15 years, and 29% of the staff had 16 years or more of experience, 3 respondents at 14% had worked for 5 – 10 years while 1 respondent at 5% had worked between 1 – 4 years. This implies that majority of the Masinde Muliro University of Science and Technology Library personnel had sufficient work experience to possess a comprehensive understanding of the library's operations. Therefore, the participants were capable of providing answers to the inquiries on the characteristics of library materials, user contentment, and the elements that influence collection management procedures.

4.1.2 Respondents Level of Education

The study sought to establish the level of education of the library staff in the Masinde Muliro University of Science and Technology library. Table 2 summarizes the findings.

Table 2

Respondents' level of Education

Qualification	Frequency	Percentage
Certificate	1	5%
Diploma	4	21%
Bachelors	7	37%
Postgraduate Diploma	3	16%
Masters	4	21%
TOTAL	19	100%

From Table 2, it is clear that 37% of the personnel held a bachelor's degree, 21% had a master's degree and 21% were diploma holders. In addition, 16% of people had earned a postgraduate diploma and 5% had obtained a certificate qualification. The results agree with past studies that highlight how academic credentials help improve library services. Ocholla and Ocholla's (2020) study of university libraries in Kenya found that having librarians with higher education improves service delivery, makes users happier and helps integrate new library technologies.

Likewise, Kavulya's (2004) research on marketing of library services with reference to selected university libraries in Kenya found that the majority of professional librarians had a bachelor's degree which is necessary to maintain high standards in academic libraries. The findings suggest that the library is operated by workers who are highly qualified and a large number of them have advanced academic credentials that will benefit library operations. Even so, in comparison to global studies such as the ACRL report 2021 (Taylor, 2023) which argues for better postgraduate training for academic library staff to help with advanced research and digital change, MMUST library could gain from providing more professional development to meet worldwide standards.

4.1.3 Level of Study by Postgraduate Students

The study sought to determine the level of study of the post graduate students who participated in the study. The results are summarized in Table 3.



Table 3

Postgraduate Student Programme of Study

Programme of Study	Frequency	Percentage
Masters	56	65
PhD	30	35
Post Graduate diploma	0	0

As shown in Table 3, the majority of postgraduate students, 65%, were enrolled in master’s programs. At the same time, 35% of the postgraduate students were pursuing PhDs. The library users throughout the study did not include any postgraduate diploma program students. This research agrees with what Okello-Obura and Kigongo-Bukenya (2011) previously found, that master’s students are the main postgraduate library users in East African universities, mainly because they need extensive research materials for their theses. In a similar way, Munene and Nyaribo (2013) found through research that students in Kenyan universities with postgraduate diplomas and master’s degrees are more likely to use the university library than others. On the other hand, PhD candidates often use specialized research centers or digital repositories to meet their academic needs.

It is possible that Post graduate diploma students did not take part in the study because they use digital resources, access materials from home or look up information in their own collections instead of visiting libraries Besides, the fact that more students choose master’s and PhD programs over Post graduate diploma studies is in line with national trends, since doctoral programs are less popular because of funding issues, time pressure and the tough nature of the research (Mutula, 2019). It is important for university libraries to make their digital services and outreach programs better, so that PhD students and all postgraduate learners have easy access to academic resources.

4.2 Frequency of library visit by Postgraduate Students

The study sought to determine how often the post graduate students visit the library. Figure 1. Illustrates the findings.

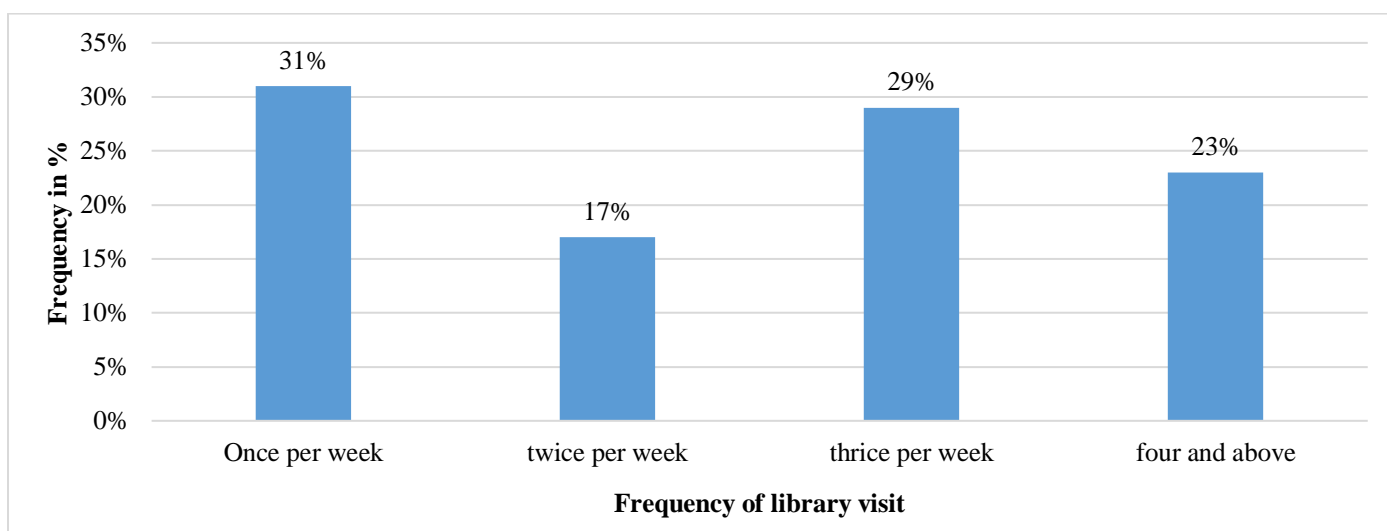


Figure 1

Frequency Postgraduate Student Visit the Library

The data shown in Figure 1 indicates that a significant proportion of postgraduate students (31 percent) visit the university library once per week. Conversely, only 17 percent of the postgraduate students reported visiting the library twice per week. 29% reported visiting the library three times per week, whilst 23% reported visiting four times or more per week.

According to the supplied data, postgraduate students visit the MMUST library on a regular basis. Hence, it is significant to mention that the postgraduate students who took part in the research possess knowledge regarding the functioning of the MMUST library and the characteristics of the information resources at its disposal. It is evident from the findings that the library is not utilized to its full potential by postgraduate students, as the majority of respondents stated they only visit the facility once per week.

4.3 Preferred Library Information resource format in MMUST Library

The study sought to assess the preferred information resources by the postgraduate students. The results are summarized in Table 5.

Table 5*Preferred Information Resource Format by Post Graduate Students*

Statement	1		2		3		4		5		N
	F	%	F	%	F	%	F	%	F	%	
The availability of textbooks and reference books in the library meets my academic needs	16	19%	22	26%	5	6%	26	30%	17	20%	86
The quality and relevance of print journals and magazines in the library are satisfactory.	12	14%	16	19%	0	0%	29	34%	29	34%	86
The library has an adequate collection of research theses and dissertations.	13	15%	30	35%	2	2%	16	19%	25	29%	86
The library provides adequate access to e-books and online journals.	14	16%	20	23%	2	2%	25	29%	25	29%	86
I find the institutional repository useful for accessing scholarly content.	16	19%	18	21%	0	0%	29	34%	23	27%	86
The library subscribes to a sufficient number of academic databases (e.g., JSTOR, ScienceDirect, Emerald).	17	20%	21	24%	0	0%	23	27%	25	29%	86
The availability of computers and internet access in the library is sufficient.	21	24%	18	21%	0	0%	24	28%	23	27%	86

The study of preferred library resources at Masinde Muliro University of Science and Technology (MMUST) Library found that users have mixed feelings about the availability, quality and accessibility of different resources. There are clear strengths in the library's supply of print journals, magazines and electronic resources, but there are major weaknesses in providing textbooks, research theses and institutional repositories.

It is clear from the data that textbooks and reference materials which are important for academic success, were evaluated differently: 30% of respondents agreed and 20% strongly agreed that the library meets their needs, while 26% disagreed and 19% strongly disagreed. Though a large number of students think the library's books are sufficient, there is still a noticeable gap in serving all academic requirements. Dadzie (2015) points out that the availability of textbooks is necessary for academic programs and not having them can hinder learning and research. Most people found the print journals and magazines in the library to be of good quality and relevant, as 34% agreed and an equal number strongly agreed. Just 14% strongly disagreed and 19% disagreed which shows that most people agree the library does a good job of delivering quality periodicals. This agrees with what Tenopir et al. (2019) found: that access to top journals increases both research output and involvement in academics.

Many respondents (35%) feel that there are not enough research theses and dissertations in the library, while only 29% strongly think the collection is adequate. This result reveals that not all researchers have access to previous studies which is important for academic work and preventing the same research being done twice (Frosio, 2020). The same trend appears in the availability of e-books and online journals, as 23% of respondents disagreed and 16% strongly disagreed which means digital access is still a problem for some students. Unlike Aharony's (2011) studies, this study shows that e-resources are not as important in academic libraries today, due to their inconvenience and limited information.

Thirty-four percent thought the institutional repository was useful and an additional 27% strongly agreed. About one-fifth (19%) of people strongly disagreed and another fifth (21%) disagreed, suggesting that there are still problems with awareness or accessibility. This agrees with what Pinfield et al. (2014) discovered earlier, that underutilization of institutional repositories is often caused by not providing proper training to users and lacking the needed digital infrastructure. Opinions about academic database subscriptions such as JSTOR and ScienceDirect, differed; 24% of the respondents disagreed that the library has enough of these subscriptions. This is in line with Borgman (2018), who stressed the importance of investing more in digital library resources, as academic databases are key to finding peer-reviewed research.

Enough computers and internet access in the library is still a concern for many, as 24% strongly disagree and 21% disagree with the current facilities. Even though 28% of respondents agree and 27% strongly agree, the high level of dissatisfaction points to a requirement for better digital infrastructure. This is consistent with what Bhardwaj and Margam (2020) found, that internet access in academic libraries greatly improves students' ability to do research and complete their assignments.

It was found that MMUST Library does well in providing print journals, magazines and access to the institutional repository, but it is challenged by the shortage of textbooks, research theses, digital resources and computing facilities. Since there is much disagreement across various areas, it is clear that strategic actions, for example, increasing the book collection, improving digital access and upgrading research support, are needed. The results are consistent with what Musoke (2010) found. According to Musoke (2010), many libraries in East Africa such as Makerere



University Library, have print journals and institutional repositories, but they still struggle to supply adequate digital resources, the latest textbooks and proper ICT infrastructure for research. Just like MMUST Library, these libraries show the same strengths but face problems with limited resources and poor infrastructure. It demonstrates that MMUST’s situation is not unique, but is similar to what other regional academic libraries experience, where traditional collections are stronger than digital and technology-related services. Commonly, people suggest increasing funding, carrying out digital projects and building infrastructure.

4.4 Nature of Information Resources at MMUST Library

4.4.1 Types of Information materials

The study sought to establish the types of information materials that were available in the MMUST library. The researcher sought to get this from the staff who were to respond to statements that were rated on a likert scale where Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) Disagree (5). Table 6 below displays a summary of the results.

Table 6

Types of Information Resources in MMUST Library

Statement	1		2		3		4		5	
	F	%	F	%	F	%	F	%	N	%
The MMUST Library has a sufficient collection of reference books to meet academic and research needs.	0	0%	0	0%	0	0%	0	0%	21	100%
The MMUST Library has a sufficient collection of books to meet academic and research needs.	0	0%	0	0%	0	0%	0	0%	21	100%
The MMUST Library provides access to a wide range of newspapers for current affairs and research purposes.	0	0%	0	0%	0	0%	0	0%	21	100%
The library has an adequate number of academic journals to support studies and research work	0	0%	0	0%	0	0%	0	0%	21	100%
The MMUST Library offers a variety of magazines covering different fields of interest.	0	0%	0	0%	0	0%	12	57%	9	43%

The findings in Table 6 reveal that all participants (100%) unequivocally affirmed that the Masinde Muliro University of Science and Technology (MMUST) Library possesses an adequate assortment of reference and general books to fulfill academic and research requirements. This implies that the library has emphasized the procurement and upkeep of books, thereby ensuring that students and researchers have access to vital educational resources. A study by Dadzie (2015) indicates that well-equipped academic libraries substantially enhance student achievement and faculty research efficacy. Likewise, a report by Mutula and Majinge (2022) established that ample book collections in university libraries bolster information literacy and academic performance.

Moreover, all respondents (100%) unequivocally concurred that MMUST Library offers access to an extensive array of newspapers for current events and research objectives. This corresponds with the findings of Ocholla and Shonge (2023), who highlighted the significance of newspapers in facilitating research on current issues, especially within the social sciences and humanities. Diverse newspaper collections enable students to remain educated about current events, which is essential for fields like journalism, political science, and history.

The complete consensus (100%) that MMUST Library possesses a sufficient quantity of academic publications to facilitate studies and research underscores the institution's dedication to scholarly excellence. This finding aligns with the research conducted by Mwirigi and Kiplang’at (2023), which demonstrated that access to peer-reviewed publications improves the quality of research output in institutions. The accessibility of academic publications enables students and professors to connect with contemporary research trends, promoting knowledge growth.

Responses about magazines indicated a modest divergence, with 57% in agreement and 43% in strong agreement that the library provides a diverse selection of publications encompassing several areas of interest. This suggests that although magazines are accessible, their diversity may not be as comprehensive as that of other resources such as books and journals. Kakai and Wanyama (2024) reported analogous findings, noting that university libraries frequently favor intellectual literature over popular magazines, resulting in a restricted assortment of non-academic periodicals.

These data indicate that MMUST Library is adequately provisioned with books, newspapers, and academic journals, conforming to optimal standards in academic library administration. Nonetheless, there exists potential for enhancement in diversifying the selection of periodicals to accommodate a wider range of intellectual and personal interests.

While interviewing the respondents, R1 stated the following:



“Our library has a blended information collection which adequately meets the needs of our users. The resources range from books, reference works, research databases, magazines, newspapers among many others”

The view expressed by respondent R1 highlights the diversity and comprehensiveness of the library's information collection. According to R1, the library employs a blended approach to resource acquisition, which suggests a mix of both physical and digital materials. This variety ensures that the library is well-equipped to meet the varied needs of its users, ranging from academic and research needs to general knowledge and current awareness. The inclusion of resources such as books, reference works, research databases, magazines, and newspapers indicates an intentional effort to cater to different user preferences and information-seeking behaviors. Overall, R1's statement reflects a positive assessment of the library's capacity to support learning, teaching, and research activities through a well-rounded and accessible collection.

The findings are in line with Ntui and Orim (2014) who maintained that a good library should be well equipped with books and periodicals in all subjects to advance research.

4.4.2 Formats of Information Materials

The study sought to establish the information formats available in the MMUST library. To gather this data from library staff respondents, the researcher availed statements in relation to information formats rated on a Likert scale where Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) Disagree (5). Table 7 displays a summary of the results.

Table 7
Information Resources at MMUST Library

Statement	1		2		3		4		5		Total	
	F	%	F	%	F	%	F	%	F	%	N	%
MMUST Library provides a sufficient collection of print media resources (e.g., books, newspapers, magazines, and journals) to support academic and research needs.	0	0%	0	0%	0	0%	0	0%	19	100%	19	100%
MMUST Library offers a well-organized e-resources collection (e.g., e-books, online journals, and databases) that is easily accessible to students and faculty.	0	0%	0	0%	0	0%	3	16%	16	84%	19	100%
The library has an adequate number of audio-visual resources (e.g., CDs, DVDs, and audiobooks) to enhance learning and research.	0	0%	12	63%	0	0%	3	16%	4	21%	19	100%
MMUST Library provides a variety of multimedia resources (e.g., interactive learning tools, digital presentations, and recorded lectures) to support diverse learning styles.	3	16%	11	58%	0	0%	5	26%	0	0%	19	100%

As shown in Table 7, MMUST Library has a wide range of information resources, but the multimedia and audio-visual resources are not adequate. The fact that every respondent (100%) agreed that the library has sufficient books, newspapers, periodicals and journals demonstrates that MMUST Library has managed its print collection well. This matches what Otike and Ombongi (2023) stated, where they noted that university libraries in Kenya still focus on print resources because students and faculty in certain fields still rely on them.

In the same way, 84% of the respondents strongly agreed and 16% agreed that MMUST Library provides a well-structured and accessible collection of e-books, online journals and databases. This is in line with findings from Musakali and Njuguna (2022), who observed that digital resources are being used more in Kenyan university libraries to help students learn remotely. The fact that electronic resources are widely available at MMUST Library shows that technology is being well integrated into academic support.

In comparison, the library's collection of audio-visual materials is questionable, since 63% of those surveyed did not agree that there are enough CDs, DVDs and audio books. This matches the findings in Muthoni's (2021) study which revealed that Kenyan university libraries struggle to obtain and preserve enough audio-visual materials because of financial problems and little interest from users. Even though 21% strongly agreed and 16% agreed that resources are accessible, the overall mean score suggests that this collection should be improved.

When asked about multimedia resources, including interactive tools and recordings, 58% of respondents did not agree, 16% strongly disagreed and just 26% agreed. It points out that there are not enough different ways to learn which is important in today's higher education. It was highlighted in the study by Wanyama and Ochieng (2023) that



multimedia resources are important for increasing student engagement and meeting the needs of various learners, especially with the rise of hybrid and online learning. It appears that MMUST Library should boost its digital learning tools to keep up with international standards in academic libraries.

While MMUST Library is strong in providing print and electronic materials, its audio-visual and multimedia resources could be improved. Working on these areas will make it easier for the library to use innovative ways of learning, as recent research in library development suggests.

In an interview, R1 was more categorical: “we have print resources, e-resources, multimedia and audial visual resources.”

R1’s statement clearly lists the different information resources available which demonstrates their effort to provide resources that meet the many needs of their users. R1 points out that print, electronic, multimedia and audio-visual resources are important for a library to be inclusive and keep up with modern learning styles. It means that you should try to use both printed books and online sources, since printed books are good for in-depth reading, e-resources are useful when you are not at the library and multimedia and audio-visual content keeps learning fun and interesting. The broad range of resources proves the institution’s dedication to helping more students and supporting many different academic activities.

4.5 User Satisfaction with Management of Library Resources

The study sought to establish the user satisfaction with management of library resources by post graduate students in MMUST library. Post graduate students responded to selected statements on a scale of Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) Disagree (5). Results are summarised in Table 8.

Table 8
User Satisfaction Level with Management of Library Resources

Statement	1		2		3		4		5		Total N
	F	%	F	%	F	%	F	%	F	%	
The library offers sufficient study spaces conducive to resource utilization.	0	0%	12	14%	12	14%	22	26%	40	47%	86
The library's physical and digital resources are easily accessible.	12	14%	16	19%	0	0%	33	38%	25	29%	86
The library provides a diverse range of materials relevant to my academic and research needs.	12	14%	17	20%	2	2%	37	43%	18	21%	86
The library regularly updates its collection to reflect current trends in my field of study.	11	13%	29	34%	0	0%	26	30%	20	23%	86
There are sufficient copies of key textbooks and reference materials.	20	23%	31	36%	0	0%	22	26%	13	15%	86
The library’s journal subscriptions and electronic resources meet my research requirements.	13	15%	11	13%	0	0%	31	36%	31	36%	86
The library accommodates user recommendations for new acquisitions.	10	12%	23	27%	0	0%	33	38%	20	23%	86
The availability of computers and internet access in the library meets my needs.	37	43%	23	27%	0	0%	14	16%	12	14%	86
The institutional repository is well-managed and provides valuable academic content.	9	10%	24	28%	0	0%	31	36%	22	26%	86
The library responds effectively to user inquiries and feedback.	21	24%	28	33%	0	0%	19	22%	18	21%	86
The library offers useful training sessions on information literacy and resource utilization.	18	21%	21	24%	5	6%	18	21%	24	28%	86

The purpose of the study was to assess how satisfied users were with the way collections are managed at MMUST Library. The results show that people have different opinions about how adequate, accessible and relevant library resources are. Around half of the respondents (47%) said the library has enough study areas for using resources and 26% agreed with this as well. It means that MMUST Library has tried hard to offer enough study spaces, in line with Asubiario and Igwe (2022), who highlight that a good library setting leads to more use of resources and better academic involvement. Yet, the 14% of respondents who disagreed call for more work to be done on ergonomics and noise in study areas. 38% of respondents thought that both types of resources were easy to access and 29% strongly agreed with this. Even so, 19% of the users disagreed and 14% strongly disagreed which means that almost a third encounter accessibility challenges. This is similar to what Mtega et al. (2021) discovered, that issues related to digital divide and poor technology infrastructure often prevent African universities from using library resources well. A mean

score of 4 means users generally have a positive view, but the gaps in accessibility could be improved by better cataloging, more support for ICT and educating users.

Respondents were also asked about the variety of library materials and 43% said they agree that the library has a wide range of academic resources, while 21% strongly agreed. Still, 34% (made up of those who disagreed and strongly disagreed) said they were not satisfied because they felt the materials were not broad or deep enough. This is in line with what Buhari (2023) found, that libraries in developing countries often have collections that are out of date and limited subject coverage which affects how well research is done. The MMUST Library ought to focus on increasing its resources and acquiring materials from different disciplines to help users more.

There was a problem identified with updating library collections, as 34% of respondents felt that the updates did not happen regularly or match the latest trends in their subjects. This is in line with past studies, including that of Kamau and Wamukoya (2020) which pointed out that financial issues and complicated procurement procedures often stop Kenyan university libraries from getting the latest scholarly materials. To handle this challenge, it may be necessary to join efforts with academic publishers and open-access projects for quick updates.

A significant number of respondents, 36%, disagreed and 23% strongly disagreed that there were enough copies of required books and reference materials. About 26% agreed and 15% strongly agreed which gave the survey a mean score of 3, showing moderate dissatisfaction. This is consistent with Ngugi et al. (2023), who report that many university libraries in Kenya have difficulty maintaining enough textbooks because students outnumber books and the budget for buying new ones is small. The library can try to digitize more important books and encourage greater government and institutional support for purchasing resources.

A large number of respondents, 72% in total, agreed or strongly agreed that their research requirements were met by the available journal subscriptions and electronic resources. This means that MMUST Library has made good progress in offering electronic resources which is in line with what is happening globally (Tenopir et al., 2021). Yet, to keep access to important journals, organizations must find ways to fund them and regularly check what users want.

How users are involved in choosing new books was also looked at. Even though 38% of respondents said the library welcomes users' suggestions for new books, 27% disagreed which means there is a chance to improve how users are engaged. As mentioned by Baro et al. (2022), university libraries often use feedback systems to make sure their resources meet the changing needs of academia. MMUST Library ought to introduce a more organized process for users to suggest resources.

Many people were concerned about having computers and internet, as 43% strongly disagreed and 27% disagreed that they had what they needed. This points out a major problem in digital infrastructure which is in line with Chisita and Chiparausha's (2021) research that shows that inadequate ICT equipment in African university libraries reduces the ability to learn and conduct research online. To solve this gap, we should invest in making more digital services available and ensure the internet is always reliable.

When asked about the management of MMUST's institutional repository, 36% said they agree that it offers good academic content, but 28% disagreed. It shows that, although the repository is helpful, some issues might arise with discovering, accessing and understanding the archived materials. According to Ojedokun and Owolabi (2022), developing regions' institutional repositories often have bad metadata and low involvement from faculty members. MMUST Library should therefore work on its policies and educate faculty to resolve these issues. 33% of respondents disagreed and 24% strongly disagreed, that the library responds well to feedback and questions from users. Thus, it is important to improve communication and train staff to improve service delivery. Mayende et al. (2021) also highlighted that user-centered models help improve how satisfied people are with the library

Participants rated training sessions on information literacy as neutral, since 28% strongly agreed, 21% agreed, 24% disagreed and 21% strongly disagreed with their usefulness. It appears that some users are getting different experiences which could be because of variations in how often or how well they were trained. Research by Mutula (2019) points out that more structured digital literacy courses are needed to help students use academic databases effectively. The library at MMUST should help improve training design and access to boost the use and effectiveness of the training. The results point out both what MMUST Library is doing well and what can be improved in its collection management. People generally liked the study areas, access to journals and the ease of finding resources, but some issues remain about the number of resources, their updates, technology support and user involvement in choosing what to purchase. More money, better digital access, better collection policies and improved ways to gather user opinions are needed to deal with these issues.

A respondent R1 in an interview was noted saying;

"It is not possible to fully satisfy all our users' needs, however with the emerging technologies we have moved closer to doing that, we rely so much on online mechanisms that include remote access to resources, electronic books and journals which complement the traditional book resources, we allow users to make follow-ups using emails, short messages and even the live chat systems that we have installed on the Opac. We use that to largely respond to our users as well collect feedback."

Respondent R1 admits that it is not easy to serve all users in the library, but feels more optimistic because of the improvements in technology. The respondent mentions that digital tools such as remote access and electronic books and journals, are used along with traditional print materials. Using both methods increases access and matches the changing tastes of today's users. In addition, the library uses several ways to communicate with users such as email, SMS and live chat in the OPAC system, to support interactions, allow for follow-ups and collect feedback. It means the company is proactive and flexible in using new technologies to improve how users experience the service.

R1 was noted;

“Users are now able to even give suggestions on the kind of materials they wish availed. Through the Opac, they have room to indicate the books they feel they are not in the collection yet are key for use. Unlike before when we all relied on the faculty to suggest titles to be acquired.”

R1 points out that there is now a greater focus on involving users in the process of getting library resources. It means that users can now suggest materials they require for their studies or information, mainly through the Online Public Access Catalogue (OPAC). It is a change from the old system where faculty members made the main decisions about which titles to buy. The change suggests that the library will pay more attention to what users want which could result in a collection that is more useful and suitable for the community.

V. CONCLUSION & RECOMMENDATIONS

5.1. Conclusion

The research shows that users are not fully satisfied with the library's resources. Print journals, magazines and institutional repositories are welcomed, but getting textbooks, research theses and digital resources is still a major problem. Because e-books, online journals and academic database subscriptions are not enough, there is a clear need for better digital access. Another problem is that not all students have access to computers and the internet which makes it hard to use resources effectively.

The study found that MMUST Library has built a good collection of both printed and electronic materials which adequately supports both academic and research work. The fact that all the respondents agree on the quality of books, newspapers and periodicals shows that the library is dedicated to top-level research. It was found that more people are using digital resources and most of them think e-books, online journals and databases are both accessible and well-organized. Yet, the study points out that there are issues with multimedia and audio-visual resources, as many people felt they were not available enough. Lack of interactive learning tools, recorded lectures, CDs and DVDs is because of financial issues and low user interest which reduces the library's ability to offer various learning methods. Moreover, while the Online Public Access Catalog (OPAC) and the digital repository were highly praised, virtual assistants and AI-driven services were not, suggesting that better digital support is required.

This study has pointed out the main problems and benefits in managing library resources. Many respondents are unhappy with the course materials they have, as current print textbooks are not updated. The use of digital resources has been key in meeting this gap, showing that electronic materials are becoming more vital in academic libraries. Even though most respondents said they had enough study spaces, many mentioned that the environment could be improved due to ergonomic and noise issues. Many were unhappy with the range of library materials, mainly because of delays in updating them due to money and bureaucratic issues.

5.2 Recommendations

According to the study, there are several actions that could make MMUST Library services better. A main goal should be to widen the use of online databases like JSTOR and ScienceDirect and to improve access to textbooks and references. For people to use digital content better, improving both internet access and the number of computers is very important. The library should highlight repositories and ensure all users can access them, also performing assessments regularly to deal with new challenges. The library should also focus on acquiring and developing multimedia and audio-visual materials, secure extra resources by joining forces with organizations and other libraries and make full use of technology by adding AI chatbots for online support. Last but not least, MMUST Library will be responsive and modern by ensuring its resources meet the new academic and technological requirements through interactive user engagement activities.

Print materials should be updated from time to time to offer balance to the digital materials in the library. Rules in libraries should be updated to ensure people with disabilities can access them with the help of technology and updated facilities. Awareness campaigns and user training should also be offered to explain the rules for using library resources. For academic needs to be met, collections must grow through consistent and obvious strategies. Budgeting accordingly to upgrade worn and outdated resources is the last key point. Such measures will lead to better use of resources, more access and greater user satisfaction which is beneficial for academic and research excellence

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