Collecting Development Practices in Using Information Technology: A Comparative Study

Raymond Wafula Ongus[1] & Constantine Matoke Nyamboga[2]

[1]School of Computing and Informatics, Mount Kenya University, Mombasa Campus, P. O. Box 42702-80100, Mombasa, Kenya.

[2]School of Computing and Informatics, Mount Kenya University, Nakuru Campus, P. O. Box 17273- 20100, Nakuru, Kenya.

constantinenyamboga@gmail.com

Abstract. An academic library is envisioned to be the nerve centre of academic activities in every university. In turn, a key indicator of the quality of any university library is the quality and relevance of its information content and technology resources relative to its users' needs. Information technology developments have revolutionized information handling processes thereby making it imperative for university libraries to apply information technology adequately in their collection development practices. This study compared the applications of information technology in collection development practices in the Egerton (public) and Kabarak (private) university libraries, in Kenya. Comparative case study research design was adopted with sample sizes of 86 academic staff and 20 library staff drawn from the two universities, selected using both purposive and stratified random sampling. Data were collected by using a questionnaire and interviews, and analyzed descriptively and comparatively. Findings indicate that the staff appreciated the importance of information technology in collection development practices, although the actual extent of use is constrained by various internal institutional factors. Kabarak University utilized information technologies more in collection development practices, especially through use of online publishers' catalogues and user suggestions online to the library management, compared to Egerton University. The study recommends increased sensitization of the library staff and university managers on the added values that can be derived from the use of information technology in collection development practices. There is also need to adequately and frequently involve all stakeholders including the academic staff in the implementation and application of information technology in collection development so that the available content resources match users' needs. Also

important is improvement on the availability and supply of information technology resources to match the increasing student and academic staff populations, especially in public universities in Kenya.

Keywords: Information technology usage, Collection development, University libraries, Nakuru County, Kenya.

1. Introduction

In this era of information technology (IT), electronic processes for various library functions such as acquisitions, selection, cataloguing, circulation, digitization of existing printed materials, and acquisition of or access to electronic information resources can now be driven by information technologies to achieve higher levels of library user satisfaction (Ajayi, 2002). Collection development is a process of acquiring and maintaining information materials in a library in response to the information needs and service requirements of library users. This dynamic and constant cycle encompasses user needs assessment, policies, selection, acquisition de-selection, weeding and evaluation (Evans, 2004). A sound collection helps in effectively and efficiently fulfilling the needs and goals of users and the library organization. For efficient collection development there is need for proper policies to be formulated considering the emerging trends in publication and information management.

New computer-based tools enable librarians to be able to promptly and directly search, locate and order new materials, and more effectively create and update collection development policies, and optimize collection development expenditures. This is contrary to the traditional procedures and practices that involve complex and manual processes that include sifting through bulky volumes of national bibliographies, numerous publishers; trade catalogues to a multiple of vendor new-title review forms. This process is slow and cause delays in acquisition of information materials. These procedures have failed the test of time in the light of todays' technological advances owing to the emergence of e-publications and digital information resources which have transformed the collection development practices (Agee, 2007).

In Kenya, the Commission for University Education has standardized the structure and guidelines of running academic programs in public and private universities. Specifically, the Commission for Higher Education (CUE) (2013) stipulates that libraries at universities shall provide, for all academic programmes, varied, authoritative and up-to-date information resources, which facilitate teaching, learning, research and outreach. However, the implementation of the stipulated changes has varied with the type of institution. Some institutions of higher learning are publicly owned, large and bureaucratic, so decision making processes on library systems involve many levels thereby

taking longer time. Other universities are privately-owned, younger and slimmer and thus more likely to take decisions more rapidly. This study therefore endeavoured to comparatively investigate the application of information technology in collection development practices, using Egerton public and Kabarak private universities as case studies.

2. Research problem

Modern library information services have fundamentally embraced the application and use of information technology in provision of services. Collection development is one of the important processes that has received little attention. Central to the discussion is the impact of information technology in collection development whose main purpose is to enable facilitate access to electronic information which has effectively enhanced and replaced traditional collection. In respect to this, information technology becomes a central component not only for university libraries but also for collection developers. In spite of the technological advancement in information technology, university libraries still use the traditional processes of collection development which involve manual and tedious processes that range from sifting through bulky volumes of national bibliographies, numerous publishers" trade catalogues to a multiple of vendor new-title review forms (Chisenga, 2004). This process is slow and cause delays in acquisition of information resources.

The practice of collection development is based on a theoretical foundation that allows dynamic change. This dynamic environment is currently one of providing information to meet the needs of information seekers (Agee, 2007). In Kenya, the structure and guidelines of running the curriculum in public and private universities have been standardized (CUE, 2013). However, whereas Information Technology (IT) is sometimes available, its application varies in different institutions. Similarly, although IT is being applied in various university libraries, its application in collection development processes has been markedly uneven across universities in Kenya. This situation informed the selection for study and comparison the collection development processes at one private and one public university in order to identify differences that may be due to ownership type and whether and how the two libraries might be cooperating or might cooperate among themselves and other public or private academic libraries for efficiency and effectiveness in meeting the needs of their users.

Egerton University, one of the universities considered in this study, is a public university that offers Diploma, Bachelors, Masters and PhD degrees in different disciplines. The library system at Egerton comprises of the main university library in Njoro Campus with eight faculty branches. Egerton

University has a vision to be a world class university for the advancement of humanity and a mission to generate and disseminate significant knowledge and offer exemplary education to contribute to and innovatively influence national and global development. The library is considered to be a critical tool for realizing the mission and proactively avail current information, services and resources to faculty, students and researchers both in print and electronic format Kabarak University, the other university that was considered for this study, is a private university in Kenya located 20 kilometers from to the North-West of Nakuru town. The mission of Kabarak University is to provide quality information services to support teaching, learning and research. Kabarak offers Diploma, Bachelors, Masters and PhD degrees in different disciplines. The library system comprises of the main library at Nakuru and the Nairobi campus library. The library endeavors to collect, organize and store relevant information materials both in print and electronic media and disseminate information to students and staff of the University.

Decision making processes in the two institutions are likely to vary due to the circumstances of their ownership and funding constraints. Preliminary information shows that similarities and differences in the application of collection development between private and public university libraries in Kenya had not been documented and hence the research problem was to compare the application of information technology in collection development at Egerton and Kabarak University libraries, Kenya, as case studies.

3. Research purpose and objectives

The main purpose of the study was to examine and compare the application of information technology in collection development practices at libraries of Egerton and Kabarak Universities with the view of suggesting a framework for effective development of information collections in universities in Kenya. The objectives of the study were:

- To examine the collection development practices at libraries of Egerton and Kabarak universities, respectively.
- To compare the extent to which IT is applied in the collection development practices at libraries of Egerton and Kabarak universities.
- To compare the perception of the staff on the use of IT in collection development at libraries of Egerton and Kabarak universities.

4. Justification, scope and limitations

The university managers outside academic libraries are often inadequately

aware of the IT deployment challenges facing the operations and collection development processes at the libraries. Therefore carrying out this study was critical to assessing awareness and understanding among the management boards and academic and library staff of the two universities. The findings and recommendations of the study would be of help to the collection development managers of university libraries in understanding what they know, and what and how they can innovate more efficient IT- based methods of carrying out collection development activities, along with improved collection development policies to serve those activities. The findings of the study would also be of interest to other public and private universities and their respective sponsors. Thirdly, the study provides a basis for further research on the topic in other libraries and information centres.

Though many initiatives have addressed information technology in library services, this study was limited to the topic on processes of collection development and how information technology could be deployed to improve these practices in only two selected universities in Kenya, one public and one private, and the sample of the study was drawn from the teaching staff and library staff members only, with the library staff including only staff working in technical section of the two libraries. However, data was collected using both questionnaire and interviews in order to gather in-depth and corroborative information, as well as to solicit for more information from respondents.

5. Theoretical framework

The theoretical framework that will be used to inform this study is derived from the Evans (2004) systems process, which links each library activity to the other in a cyclical system and, at the same time, linking all activities to the community whose information needs the library must fulfill. Other theoretical models in literature include that of Edelman (1979) who proposes a progressive division of the activities related to collection development; Ferguson (1986), who introduces a structural- functional systems model; and Evans (2004), who elaborates a system‟s cyclic process.

The model proposed by Evans (2004), has several advantages over the others and is of considerable help to librarians in their effort to organize, control and synchronize collection development activities in each specific institution (see Figure 1). The model can be used in any library without the restrictions imposed by the typology of the institution. It emphasizes on the need of the library to thoroughly understand the background of its community and their information needs. From the community analysis, information institutions can determine the type and information resources that are appropriate for their collection. The library staff responsible for collection development provides

information to the acquisition department (technical service), which in turn orders the desired items from the materials producers or a distributor. After receiving the materials and clearing the records, the acquisition department sends the items onto the cataloguing department for processing. Eventually, the processed items go onto the shelves where the library clients can use them.
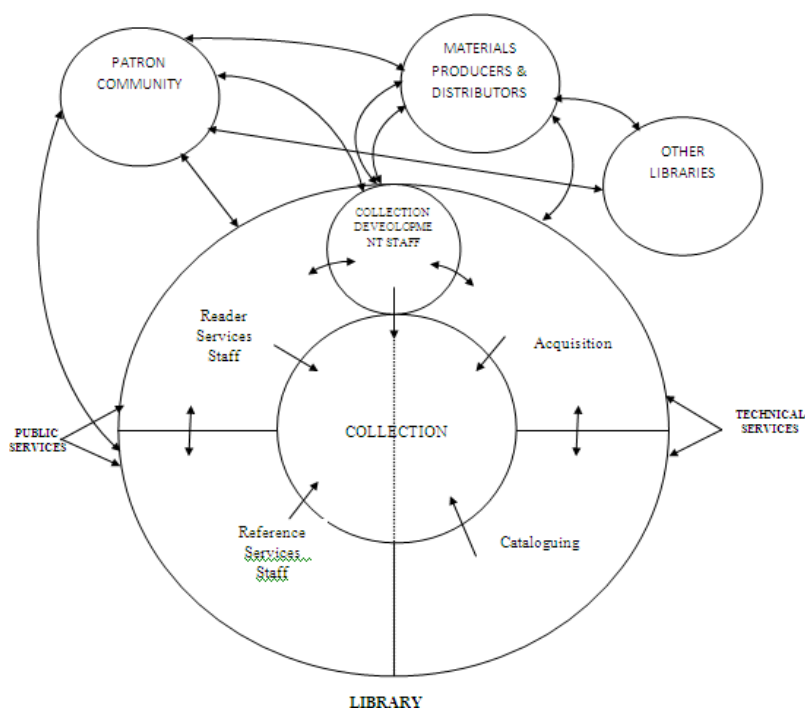

Figure 1: Collection Development, the Library and the Users

   Producers and distributors of collection material exert significant influences in many ways. They control what is available for library purchase by their decision to produce various publications. The producers market their products directly to the world of existing and users of those products, thus generating demand. Users as library patrons often then communicate their demand preferences to the library rather than buying the item, thus causing an indirect response to the marketing activities of the producers. Acquisitions librarians use and depend on multinational publishers daily because of the vast number of titles published globally. Vendors are organizations that buy publications in large quantities from publishers and make them available to individual libraries. Collections and services in other libraries and information centres used by the population served by a library also influence its collection development

individually or in cooperation with other libraries. Cooperative collection development programs enable participating libraries to provide wider range of materials and better services. Cooperative projects also can reduce duplication of materials in overlapping service communities (Agee, 2007).

Evans (2004) further identified six major cyclical processes performed by the circle labelled as „Collection Development Staff" in Figure 1, which are: → User Analysis → Collection Development Policymaking → Selection → Acquisition → Weeding → Evaluation →. These processes form a dynamic collection development cycle and provided the basis for the conceptual focus for the study.

6. Methodology

The methodology of the study comprised the following elements:

- Research Design: This study employed a comparative case study research design. The study sought to obtain factual and descriptive information from library staff and academic staff of the two universities, using questionnaires and interviews to collect quantitative and qualitative data respectively.

- Location: The study was conducted in two selected university libraries located in Nakuru County; Egerton, a public funded university, is situated in Njoro, 25 kilometers from Nakuru town. Kabarak is a private university situated 20 kilometers from Nakuru town on the Nakuru - Eldama Ravine road. Egerton University was selected because it is the oldest university in Nakuru County. It is fairly large in terms of student population and staff establishment and offers a variety of disciplines in both sciences and humanities. Kabarak University on the other hand is relatively new and was included to determine whether it was incorporating IT in library operations and services. It was therefore assumed that both libraries have been building a collection to support teaching and research since the inception of their universities, thus a study on the same was necessary.

- Target Population: The target population of this study comprised 571 academic staff and 20 library staff in both universities. Academic staff included teaching staff and technicians from the various departments. The library staff included two university librarians, two technical division librarians, two acquisitions librarians, four staff from the technical section of the libraries and ten senior library assistants. The researchers felt that these respondents were well suited to provide in-depth information about collection development and management from

the user and library operations and management perspectives.

- Sample Size and Sampling Techniques:The sample was drawn from the two universities – Egerton University (public) and Kabarak University (private). A percentage of the total population of academic staff from each of the selected university was applied based on Yamane''s formula (Yamane, 1967): $n= N/(1+N(e)^2)$, where, n is sample size,   N is size of population., and e = precision desired set at (0.1). For this study, the total population of academic staff at Egerton University was 488. And that of Kabarak University was 83. Applying the formula for the total population of 571 gave $n = 571/(1+571(0.1)^2) = 86$. A summary of the total target population and the breakdown of the total sample size for the two universities is shown in Table1. Purposive and probability sampling techniques were employed to select the study sample. Purposive sampling refers to targeting a group of respondents believed to be reliable or useful for the study (Mwituria, 2012). Purposive sampling was used to select Egerton and Kabarak universities considered, and to sample equally 10 members of staff from the library of each university. The selected 20 library staff included the two university librarians, two (2) technical division librarians, two (2) acquisition librarians, four (4) staff from technical division and ten (10) senior library assistants. It was presumed that these members of staff were appropriate for the survey because they were familiar with library collection development work in their respective libraries. Probability sampling was used for selecting the academic staff, whereby each academic staff had an equal chance of being selected. For this, stratified sampling was used to divide the population of academic staff by departments, following by simple random sampling within each department stratum. Simple random sampling ensures that all individuals from the defined population have an equal and independent chance of being selected as a member of the sample and it provides more precise estimates (Mugenda and Mugenda, 2003).

- Data Collection Instruments: This study relied principally on primary data obtained directly from the academic and library staff, and secondary data from the published catalogues of the two universities. The primary data were collected using two instruments - a questionnaire and an interview guide.

- Pilot Study: Pre-testing of the data instruments was done at Mount Kenya University, Nakuru campus and Kenyatta University, Nakuru campus. The interview schedule was pilot tested to remove or improve

ambiguous or confusing questions. Five respondents from each of the universities were used to pre-test the questionnaire, while the interview schedule was pretested on one library staff from each university.

Table 1: Study populations and samples

University	Academic staff		Library staff
	Population	Sampled	Sampled
Egerton	488	73	10
Kabarak	83	13	10
Total	571	86	20

Source: Preliminary reconnaissance survey (Mugita, 2014)

Sample characteristics

Two different sets of data collection instruments were used. A semi structured questionnaire was used for academic staff of Egerton and Kabarak Universities and an interview schedule was used for the selected library staff of the two institutions. The researcher administered a total of 86questionnaires to academic staff of the two universities. All the questionnaires were received back, thereby giving a response rate of 100%. The questionnaire response rate for each university is as given in Table 2. The researchers also carried out interviews with the two university librarians, two technical division librarians, two acquisitions librarians, four staff from technical division and ten senior library assistants, with all participating in the survey.

The level of education of the surveyed academic and library staff is summarized in Tables 3 and 4. Almost a third (32.56%) of the academic staff possessed PhD, 62.79% had Master"s degree, and only 4% had Bachelor"s degree (Table 3). The academic staff included both teachers and technicians. For the library staff, 33.3% had Master"s degree in Library and Information Science, 58.35% had Bachelor"s degree in Library and Information Science, and 8.33% had Diploma (Table 4).

Table 2. Questionnaire Response Rates

University	Sample Size	Number of questionnaires

Egerton	73	73
Kabarak	13	13
Total	86	86

Source: Preliminary reconnaissance survey (Mugita, 2014).

Table 3: Sampled Academic staff by Level of Education

		University		Total
		Egerton	**Kabarak**	
Level of education	PhD	27 (36.99)	1 (7.69%)	28 (32.56%)
	Master"s	42 (57.53)	12 (92.31%)	54 (62.79%)
	Bachelor"s	4 (5.48%)	0 (0%)	4 (4.65%)
	Total	73 100.0%	13 100.0%	86 100.0%

Source: Mugita (2014).

Table 4: Sampled Library staff by Level of Education

		University		Total
		Egerton	**Kabarak**	
Level of education	Masters"s	3 (33.34%)	3 (33.33%)	6 (33.33%)
	Bachelor"s	7 (66.66%)	5 (50.0%)	12 (58.35%)
	Diploma	0 0%	2 (16.6%)	2 (8.33%)
	Total	10 (100%)	10 (100%)	20 (100%)

Source: Mugita (2014).

7. Data analyses and findings

7.1. Collection development practices

The first objective of this study sought to determine the collection development practices at libraries of Egerton University and Kabarak University library. This

objective was based on the importance of collection development in acquiring information resources in response to the information needs of the users. Since there are six common collection development practices in libraries, the library staff were asked to rate the extent to which these practices were being used in their university library. The 20 sampled library staff reported as summarized in Table 5. The table shows that all the 20 interviewed respondents observed that the six collection development practices were used in the two universities. They varied in their rating with selection of information resources and acquisition of information resources having a weighted mean score of more than 3.00 for each university. However, user needs assessment was rated highly at Kabarak at 3.2 compared to 2.2 at Egerton. Evaluation of information resources was rated higher at Kabarak with 2.5 compared to 1.7 for Egerton. Formulation of Collection Development Policy was rated averagely at 2.1 at Egerton and 2.7 at Kabarak. Weeding of the information resources was ranked higher at Egerton with weighted mean score of 1.66 and compared to Kabarak''s 1.50.

Table 5: Library staff perceptions of use of collection development practices at Egerton and Kabarak university libraries

Collection Development Practices	University	Ratings					Weighted mean
		Total	Poor	Fair	Good	Very Good	
Selection	Egerton	10	0	0	8	2	3.2
	Kabarak	10	0	0	3	7	3.7
User needs assessment	Egerton	10	3	2	5	0	2.2
	Kabarak	10	0	3	2	5	3.2
Evaluation	Egerton	10	3	7	0	0	1.7
	Kabarak	10	0	5	5	0	2.5
Acquisition	Egerton	10	2	3	5	0	2.3
	Kabarak	10	0	3	0	7	3.2
Formulation of Collection Development Policy	Egerton	10	3	5	0	2	2.1
	Kabarak	10	2	2	7	0	2.7
Weeding	Egerton	10	3		7	0	2.4
	Kabarak	10	5	5	0	0	1.5

Source: Mugita (2014).

7.2. Selection and acquisition of information resources

The highest rating of selection of information resources and acquisition of information resources is likely because these functions are fundamental to both traditional and modern collection development practices in university libraries. That is, the library basically selects information resources and acquires them for the users. Selection is one of most essential steps in collection development process. It involves systematically determining quality and potential value of collection materials to users of a library value by ensuring that useful and relevant materials are acquired to meet the needs of the users.

Acquisition of the resources follows selection, and involves obtaining materials for the library"s collection, whether by purchase, subscription or donations. However, selection and acquisition of information resources will only be effective if they match very well the information needs of various segments of the library"s user community. This suggests that the two university libraries were giving priority to meeting user needs. Previous studies such as Jenkins and Moley (2005) observed that every library must be perfectly acquainted with the characteristics of users in its community.

7.3. User needs assessment

Library users have different needs relating to the library, its services and collections. The library collections and services must therefore be designed to fulfill needs of users. Kinya (2011) in a survey of collection development in public libraries in Kenya added that libraries should provide equal access to a range of resources that meets the needs of its users. User needs assessment was rated highly at Kabarak at 3.2, compared to 2.2 at Egerton. Kabarak University meets the needs of its users by being involved in the process of assessing the information resources to be acquired. In addition, library patrons are thus the best indicators of whether or not the library is playing its role adequately. A needs assessment process reveals the influences acting on the library. Information collected from a community analysis shapes the services and programs that best fit the library"s strengths and budget and ultimately informs a vision for future development.

7.4. Collection development policies

Each university had formulated a collection development policy for its library. Moreover, it terms of the extent of use of the policy, the library staff respondents rated it above average. However, from the views gathered from the academic staff surveyed with the questionnaire, the Formulation of Collection Development Policy was averagely rated at 2.1 at Egerton and 2.7 at Kabarak. This suggests that the library staff believe that their policies are adequately

guiding the activities of their services, but that there is room for improvement in the perceptions of the academic staff. Previous studies such as Johnson (2009) stress the importance of a library policy and its adequate implementation by observing that a library without a collection development policy is like a business without a business plan. The policy serves as an important internal document for making selection decisions and explains circumstances under which gifts and books are accepted. Evans (2004) opines that effective collection development requires creating a plan to correct collection weaknesses while maintaining its strengths. A collection development policy is the written statement of that plan, providing details to guide the library staff. In this case it serves as a guideline for each of the stages of materials handling such as selection, acquisition, processing and weeding of all forms of library information resources.

7.5. Evaluation and weeding of information resources

Evaluation of information resources was rated higher at Kabarak with 2.5, than at Egerton which had 1.7. The technical section librarian at Kabarak noted that evaluation was carried out on a continuous basis through user surveys, while the technical service librarian of Egerton University noted that evaluation was done at the selection stage, in order to ensure that suitable and appropriate information resources are selected to meet that needs of the library users. Weeding of the information resources was ranked highly at Egerton, with a weighted mean score of 2.4, compared to Kabarak"s 1.50. The technical service librarian at Egerton University pointed out that weeding was done though not annually. He pointed out that it was mainly done to create space since lack of space is amajor challenge at the library. This is in agreement with one of Evans (2004) that one main reason for weeding is to make room for new materials and to save space.

7.6. Academic staff involvement of collection development process

The effectiveness of the collection development practices will depend on the extent to which the users are involved in the process. So the 108 sampled users (i.e. the academic staff) were asked whether they are involved in the process. Table 6 summarizes their responses.

Table 6: Involvement in Collection Development Process by Academic Staff

Collection development practice	Egerton University		Kabarak University	
	% Yes	% No	% Yes	% No

Selection	80.56	19.44	71.43	28.57
User needs assessment	14.29	85.71	50.00	50.00
Evaluation	9.30	90.70	57.69	42.31
Acquisition	12.20	87.80	12.5	87.5
Collection Development policy formulation	0	100	23.08	76.92
Weeding	0	100	10.34	89.66

Source: Mugita (2014).

Table 6 shows that most of the respondents reported their being involved in selection of the information resources as revealed for Egerton (80.56%) and Kabarak (71.43%). This was attributed to the fact that the libraries in the two universities were regularly sending publishers" catalogues to academic departments requesting academic staff to make suggestions of the information resources that they need. This made it possible for the respondents to actively participate in selection processes. However, substantially much more academic staff from Kabarak (57.69%) were involved in evaluation of information resources compared to Egerton (with only 9.30%). In terms of acquisitions, very few academic staff were involved, as this process is done usually exclusively by the library staff. The respondents observed that apart from selection of information resources, they were not actively involved in the other processes of collection development like weeding and formulation of collection development policy as these were done by the library staff and the university management.

7.7. Information technology use in collection development practices

The second objective sought to compare the extent to which IT is applied in the collection development practices at the two university libraries. The objective was based on the fact that the difference in the structure and ownership of the two universities (Kabarak being private and Egerton being public) could be a factor in the extent to which the universities are using IT in their collection development practices. This study considered the application of IT in the following aspects provision of online publisher catalogues, CD-ROM databases, and user suggestions online to the library system. The 108 academic staff members were asked whether these facilities were being used in collection development in their libraries. The results are shown in Table 7.

Information in the table suggests that for the three applications of IT, there was a notable difference in the use of online publisher catalogues and user suggestions online in collection development in the universities, but not in the

use of CD-ROM databases. For the use of online publisher catalogues, it was established that out of the 73 respondents from Egerton University, 8.2% were aware of it being used in collection development, while 24.7% were not aware. This in contrast with Kabarak University where out of the 13 respondents, 30% reported online publisher was used in collection development compared to 0% who were not aware. In addition, of the 73 respondents from Egerton University, only 5.5% reported that their library used user suggestions online to the library system in collection development, while 27.4% were not aware. For the Kabarak University, 23% of the respondents reported that their library used user suggestions online to the library system in collection development, compared to 15.4% who did not.

Table 7: Application of IT in Collection Development at the university libraries

IT application areas	Egerton University		Kabarak University	
	Yes (%)	No %	% Yes	%No
Online publisher catalogues	6 8.2%	18 24.7%	4 30.8%	0 0.0%
CD ROM databases	5 6.8%	20 27.4%	0 0%	4 30.8%
User suggestions online	4 5.5%	20 27.4%	3 23.0%	2 14.4%

Source: Mugita (2014).

These results indicate that Kabarak University utilized more online publisher"s catalogues and user suggestions through the library system in their collection development compared to Egerton university library. However, on the use of CD- ROM databases, it was apparent that the difference between Egerton and Kabarak universities was negligible, with majority of the respondents in both universities reporting it was not being used in the collection development in their libraries.

7.8. Academic staff perceptions on information technology use

The third objective sought to establish the perception of the staff on the use of IT in collection development at Egerton and Kabarak university libraries. This objective was informed by the fact that utilization of IT in collection development will to a great extent depend on the perception of the targeted users about it. In this study, perception about use of IT was assessed by rating of the level of preference of the type of IT-based information resources that the

users commonly preferred, and possibly used.

Table 8 indicates that majority (62.8%) of the sampled academic staff members had an average perception on the use of IT in collection development in their university libraries. The remaining 24.4% and 12.8% of them had negative and positive perceptions, respectively. This suggests that academic staff members do not consider the use of IT in collection development practices in their libraries to be adequate yet, and are therefore not fully benefitting from the use of information technology in collection development. The table also suggests that there is some difference in the perceptions of academic staff on the use of IT in collection development between the two libraries, with more of the academics from Kabarak University having average and positive perceptions compared to those from Egerton. In fact, 26.0% of the academic staff from Egerton had a negative perception compared to 15.49% from Kabarak.

Table 8: Academic staff perceptions on IT Use in Collection Development processes

Perception of IT Use level	University		Total
	Egerton	Kabarak	
Negative	19 (26.0%)	2 (15.4%)	21 (24.4%)
Average	45 (61.6%)	9 69.2%	54 (62.8%)
Positive	9 (12.4%)	2 (15.4%)	11 (12.8%)
Total	73 (100.0%)	13 (100.0%)	86 (100.0%)

Source: Mugita (2014).

Table 9: Academic staff perceptions of adequacy of e-resources in meeting user needs

E-resources adequacy level	University		Total
	Egerton	Kabarak	
Poor	1 (1.37%)	0 (0)	1 (1.16%)

Fair	50 (68.49%)	1 (7.69%)	51 (59.30%)
Good	18 (24.66%)	9 (69.23%)	27 (31.40%)
Very good	4 (5.48%)	3 (23.08%)	7 (8.14)
Total	73 (100.0%)	13 (100.0%)	86 (100.0%)

Source: Mugita (2014).

AS shown in Table 9 there is observable difference in the perceived adequacy of the e-resources in the two libraries in meeting user needs. It was observed that in Kabarak University, 69.23% of the respondents rated the adequacy as good, 23.33% rated it as very good, and none rated it as poor. In contrast, only 5.48% of the respondents from Egerton rated it very good, 24.66% rated it as good and as many as 68.49% rated it as only fair. This suggests that the academic staff from Kabarak were more satisfied with the adequacy of e-resources in meeting user needs compared to those at Egerton.

7.9. Summary and discussion of findings

This study sought to examine and compare the application of information technology in collection development at Egerton and Kabarak Universities. Based on the study's objectives, the following major research findings were established.

7.10. Collection development practices

The first objective was to determine the collection development practices at Egerton and Kabarak University libraries, respectively. Both selection and acquisition of information resources were rated most highly due the fundamental nature of these functions to collection development, whether manually or using information technology. User needs assessment, evaluation of information resources, and formulation of collection development policy were all rated higher as collection development practices at Kabarak than Egerton. The reasons for this could be that Kabarak is a much younger „digital age" university than Egerton, so its collection size is much smaller and growing, thereby warranting more frequent user needs assessment, evaluation of information resources and formulation of collection development policy that the older, well established library of Egerton. For similar reasons, Egerton scored higher in the weeding of information resources than Kabarak, likely in order to

get rid of outdate resources in its larger collection to free up space for newer collection materials. The academic staff observed that apart from selection of information resources, they were not actively involved in the other processes of collection development like weeding and formulation of collection development policy as these were done by the library staff and the university management. This is fairly similar to what happens in other parts of the world, although authors such as Osheghale (2008) emphasize seeking the views of the teaching faculty during the collection development process, collection and curriculum evaluation. These consultations are needed to complement other well established and accepted qualitative and quantitative analytical methods for evaluating collections, as well as comprehensive user satisfaction surveys, as suggested by authors such as Lamb (2004) and Pastine (1996).

7.11. Application of IT in the collection development practices

The second objective was to compare the extent to which IT was being applied in the collection development practices at the two universities. This objective was based on the expectation that the differences between the two universities in such variables as the ownership, age, structure and operational functioning and funding (Kabarak being private, and Egerton being public) could result in differences in the extent to which the universities are using IT in their collection development practices. Under consideration was how the universities were applying IT in the following collection development practices: use of online publishers" catalogues, CD ROM databases, user suggestions online to the library system, and online ordering. Majority of the academic staff had only average perception of the use of IT in collection development practices in their university libraries. However , some differences were revealed in the application of IT, especially in the use of online publishers" catalogues and user suggestions through the library system, where Kabarak University was scored by its staff than Egerton University.

The findings of the study seem to agree with those of Kasalu and Ojiambo (2012) which reported that "ICTs were available in all the three selected private universities but their application in collection development was not adequate in ensuring efficiency and in making sure that the library collections are effective in meeting the needs of the users".

7.12. Staff perceptions on the adequacy of use of IT in collection development

The third objective was to establish the perception of the staff on the use of IT in collection development at Egerton and Kabarak libraries. Majority of the

academic staff members had only average perception of the adequacy of the use of IT in collection development in their library. There was a significant difference in the perceived adequacy of the library e-resources in meeting user needs, as well as in the overall perception of on the adequacy of use of IT in collection development. On these, academic staff members at Kabarak University were more satisfied with the use of IT in collection development, compared to those at Egerton University.

These findings somewhat contradict the findings of the study conducted by Agee (2005) in Colorado, USA – in a developed country as well as a study by Blake and Schelper (2004) where the staff awareness was much higher and information concerning library collections and their usage is analyzed using more sophisticated scientific means.

8. Conclusions

The main conclusions of this study are that:

- The libraries in the two universities selected for the study still rely substantially on traditional collection development processes to some extent despite the fact that IT is available in their institutions

- Efforts have been made to apply IT in different activities of collection development such as use of online publishers" catalogues, needs analysis, use of online selection tools, use of e- mails to communicate with the teaching staff and the suppliers. Efforts in application of IT in Collection development needs to be stepped up in that IT need to be applied in all the activities of collection development to ensure complete efficiency and effectiveness and add value to information resources so that they can be used more effectively by the users.

- There was a considerable difference in the perception of academic staff on the use of IT in collection development with Kabarak utilized information technologies in their collection development practices, especially online publishers and user suggestions through the library system compared to its counterpart Egerton. The difference could be attributed to the fact that Kabarak University is a young university established in the era of technology compared to Egerton University which is much older with well settled collection development practices. To some extent, it faces challenges of adaptation of new and emerging technologies and has to formally do away with old practices. Also most of the courses offered by Kabarak University are technology-driven.

-

9. Recommendations

In view of the above conclusions, this study makes the following recommendations about application of IT in collection development in the study area and beyond.

Traditional Collection Development Practices in Libraries: The study recommends that the slow traditional collection development processes used in the libraries can be enhanced by the application of IT. Selection of information materials can be done online. Electronic invoicing and online ordering can ease the speed of selection of information resources. Automated acquisition systems can ease manual processes. In addition, acquisition modules enable library staff to handle all major functions of acquisitions.

Application of IT in Collection Development: The study recommends that efforts in application of IT in collection development need to be intensified and applied to all the activities of collection development. The library management systems can be fully utilized as they provide components that can support processes of collection development. This will ensure efficiency and effectiveness and will add value to information resources so that they can be used more successfully by the users.

Staff perceptions on the use of IT for Collection Development: The study recommends that technological methods such as online user surveys, statistical and usage data of electronic resources to find out if there is information that is routinely sought out by the users and users" attitude and perceptions of the collection can be employed by the library. Generally, there should be increased awareness, adequate and frequent involvement of all stakeholders (academic and library staff) and sensitization of the academic staff and other library users on the importance of information technology in collection development and the available practices.

Further Research

The application of information technology has been attracting research attention in many academic institutions. However, questions have been asked on the extent of application and its effectiveness. Research findings have been mixed. However, on the basis of the scope, limitations and findings of this study, the following areas for further research are suggested:

- A similar study should be carried out in more universities in the country to validate the results of this study.

- A study of the perception of students about application of information technology in collection development should also be considered since this study concentrated on library staff and academic staff.

- Since this was a cross-sectional comparison conducted over a relatively short period, a longitudinal study is required to see how the variables of interest relate to one another over a much longer period.

References

Agee, Jim. (2005). Collection evaluation: a foundation for collection development. Collection Building, 24(3) 92-95, https://doi.org/10.1108/01604950510608267

Agee, Jim. (2007). Acquisitions go global: an introduction to library collection management in the Twenty first century, Oxford: Chandos Publishing Ltd.

Ajayi, G. (2002). Information age virtual technology – opportunities and challenges to Africa, Paper presented at UNESCO National Workshop on the Pilot Virtual University Laboratory Project, the Obafemi Awolowo University, Nigeria.

Blake, Julie C. & Schleper, Susan P. (2004). From data to decisions, Library Collections, *Acquisitions & Technical Services*, 28 (4) 460 – 464. DOI: 10.1080/14649055.2004.10766018

Chisenga, Justin (2004). The use of ICTs in African Public Libraries. Oxford: INASP.

Commission for University Education (CUE). (2013). Commission for University Education Website. Accessed on: 21/06/2013.URL www.cue.or.ke

Edelman, H. (1979). Selection methodology in academic libraries. *Library Resources & Technical Service*s, 23(1) 33-38.

Evans, G. E. (2004). Developing library and information center collections 4th ed. Westport, US: Libraries Unlimited.

Ferguson, A.W. (1986), University library collection development and management using a structural-functional systems model. *Collection Management*, 8(1) 1-14.

Jenkins, C. & Moley, M. (2002). Collection management in academic libraries: Adershot, England: Ashgate.

Johnson, P. (2009), Fundamentals of Collection Development and Management, American Library Association, Chicago.

Kasalu, Syombua & Ojiambo, Joseph Bernard. (2012). Application of ICTs in collection development in private university libraries in Kenya. *Collection Building*, 31 (1), 23- 31. https://doi.org/10.1108/01604951211199155

Kavulya, J.M. (2003). University Libraries in Kenya. A Study of Their Practices and Performance. *Library Management*, 24 (4/5) 216-222.

Kinya, H. (2011). Public Libraries in Kenya: Collection Development. *International Journal of Humanities and Social Science* 1(9) (Special Issue) 275-277.

Lamb, A. & Johnson, L. (2004). Multimedia seeds: Exploring audio and video collection management. Available: http://eduscapes.com/seeds/cd4.html#/

Mugenda, O. & Mugenda, A. (2003). Research methods: quantitative and qualitative approaches, Nairobi; ACTS.

Mugita, Beatrice Kavosa. (2014). Application of Information Technology in Collection Development Practices in Selected Public and Private Universities in Kenya: A Comparative Study of Egerton and Kabarak University Libraries. Unpublished Masters Thesis (Master of Information Science degree programme). Kisii, Kenya: Kisii University.

Mwituria, M. (2012). Qualitative and Quantitative research methods simplified Nairobi: Frajopa Printers.

Oseghale, Osagie (2008). Faculty Opinion as Collection Evaluation Method: a Case Study of Redeemer 's University Library. Library Philosophy and Practice (e-journal). 221. http://digitalcommons.unl.edu/libphilprac/221

Pastine, M. (1996). Collection development past and future. *Collection Development*. 21 (2, 3 & 4): 1-30.

Yamane, Taro. (1967). Statistics: An Introductory Analysis, 2nd Ed., New York: Harper and Row.