

Covid- 19 Pandemic and The Role of Kenyan University Libraries in Online Education

Hellen Jepkemoi Magut
Library Department
University of Eastern Africa Baraton
P.O Box 2500, Eldoret, Kenya

Sally Kiplagat
Library Department
Egerton University
P.O Box 536, Egerton, Kenya

Abstract:- The Government of Kenya gave a directive for closure of all learning institutions in Kenya when the first case of Covid-19 was reported in March 2020. The education sector suffered a great deal as no institution was prepared for the closure. Teaching and learning were disrupted and all students were forced to go home. With the desire of continue with learning, a good number of institutions of higher learning decided to conduct learning online. Nearly all services were provided online including library services. Librarians were forced to use various online platforms to provide library services to patrons. This research sought to determine the roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya. This study employed cross sectional survey research design. The target population of the study comprised of ten (10), purposefully selected heads of academic libraries in Kenya. A censuses method was conducted whereby all (10) heads of academic libraries in Kenya participated in the study. Online Questionnaires were launched via google forms and emailed to respondents. The study employed both descriptive and inferential statistics. Pearson correlation coefficient and simple linear regression analysis was conducted at significant level of $\alpha = 0.05$. Data analysis was done with the aid of Statistical Package for Social Sciences (SPSS) version 26. The study revealed a strong statistically significant positive relationship ($r = 0.899$, $p < 0.05$) between roles played by academic libraries and online university education during Covid-19 pandemic. The results of linear regression further established that roles played by academic libraries were robust significant ($\beta = 0.673$, $p < 0.05$) determinants of online university education during Covid-19 pandemic in Kenya. The study recommends that further research to be done on comparative effect of roles played by academic libraries in support of online university education in private and public universities during Covid-19 pandemic in Kenya.

Keywords:- Covid-19 pandemic, Online university education, Online libraries, Academic libraries

I. INTRODUCTION

Emergence of Covid-19 pandemic in Kenya in 2020 led to the closure of all academic institutions in Kenya. The abrupt closure got nearly all institutions unaware and physical learning was disrupted. In order to continue with learning, a good number of universities resulted in online learning through various technological platforms. The use of various technologies and its associated changes in the academic field has necessitated libraries to transform the way they provide their services. Presently the traditional concept of a library is being redefined from a place to access books to one which houses the most advanced media including CD-ROM, Internet, and remote access to a wide range of resources. Libraries have now metamorphosed into digital institutions. Gone are the days when a library was judged by its quantitative resources. Today, libraries are surrounded by networked data that is connected to the vast ocean of Internet-based services [1]

The need to provide online services because of Covid-19 pandemic has led to a paradigm shift even within our academic libraries. At the center of quality teaching, learning and research is a library be it traditional or digital. Emergence of online education necessitated the existence of online libraries. "Online education is electronically supported learning that relies on the Internet for teacher/student interaction and the distribution of class materials." (enclopedia.com). According to [2] digital academic libraries support remote users and to enhance online education, library resources and services are critical. A library is fundamentally an organized set of resources, which include information professionals and material resources in various media such as print, non-print, video and audio. Covid-19 pandemic resulted in many challenges in our academic libraries. This is because libraries were not prepared to fully provide online services, insufficient technological infrastructure and inability for students to access the library online due to internet connection problems. Even with these challenges, libraries tried to provide online services such as reference services, online eBooks and articles through remote access systems, and online information literacy programs.

Libraries have a major role to play in the achievement of University's mission and vision. All academic institutions are established to foster academic excellence and to impart knowledge to learners hence libraries complement this mission by ensuring that the learners get the right information which is transformed into knowledge. Libraries achieve this by providing a wide range of information resources and the right information to each user. Over the years, they have provided and will provide resources for education and as such, they are considered as knowledge hubs since their contribution towards successful teaching, learning and research has been greatly discovered.

Further, these libraries provide the opportunity for learners to gain knowledge and acquire lifelong skills. This is because continuous usage of the library by students enables them to develop reading habits, effective evaluation and correct use of information. In addition, in pursuit of enhancing teaching, learning and research, libraries have made it possible for students and faculty members to access both print and non-print materials at their own convenience. For example, articles from journals are the primary source of information for faculty members for teaching and research as well students get additional information from these sources to supplement their class notes. These journals are subscribed for by the library and can be accessed within or off campus through the Remote systems.

Librarians too supported teaching, learning and research by responding to students and faculty members' queries. They provide online reference services, bibliographic services, selective dissemination of information services, recommending materials to use and sources to consult for particular information. In this way, libraries allow students and faculty members to share information resources and expertise. In addition, libraries provided access to these materials through catalogs, indexes and other finding aids that enabled learners to locate items relevant to their information needs.

In recent years, both universities and academic colleges have increasingly required that faculty members conduct research, thus clouding the traditional distinction between researchers and teaching faculty members. Investing in research has enabled faculty members develop their teaching abilities as well as promotion in their academic ranking. Libraries have also enabled Faculty members and students to get diverse information mainly through searching the databases and therefore to meet the teaching, learning and research needs. To perform this service effectively, librarians must have searching and retrieval skills in order to assist them get access to the required information within the shortest time possible.

Generally, academic libraries are facing financial challenges, hence increasing the culture of resource sharing. This problem has been enhanced by Covid-19 pandemic since many Universities did not receive the government capitation in good time hence affected library budgets too. However, to overcome this issue, academic libraries usually identify

libraries to cooperate with in order to share resources. This is to ensure that all faculty members and students get access to resources they require for their teaching and learning needs. Currently many academic libraries have put in place digital repositories where university publications are deposited and shared over the internet. This initiative aims to make the research output of the universities available free of charge, and also increases the visibility and accessibility of research, potentially leading to increased citation [3]

With the changing mode of teaching and learning, libraries too have to change the way they provide services to meet online teaching and learning. According to [4] emerging technologies have placed libraries in a transformation world, where academic libraries need to devise ways of supporting teaching, learning and research in a new environment. This is because with the current online education, libraries need to ensure provision of online services to meet the user needs. This technology has brought the concept of blended librarianship. These librarians need to note that what was there yesterday may be different today; what is there today may not be there tomorrow. This raises all new types of questions about evaluating information and its sources critically. Librarians who can adapt to the changing information landscape quickly and easily will be sought after in the blended library. Libraries still have a place on today's campus, but these institutions must expand their services if they need patrons to keep on visiting them. Within the library online spaces, learning commons should be created. For example, there should be a portal where students with common interests may log in and do their discussion just the way they would do in a physical library. Such spaces give the blended librarian opportunities to thrive. With the right staffing, the learning commons can be a vibrant and engaging collaborative space where users receive personalized hands-on instruction at the point of need [5]

Of importance to librarians is the need to train students and faculty members on how to use subscribed electronic databases, e-books and electronic journals so that they are able to get authentic information and minimize the use of internet information which sometimes may not be authentic. Online information literacy programs should be emphasized by academic libraries so that online learners may not be affected in terms of access to online information. In addition, online library patrons need to be trained on selection and evaluation of information. This brings the librarian as a facilitator since he/she will need to train users on information searching skills, how to identify relevant information from the voluminous pool of information and how to evaluate the information to ensure use of right information especially from the internet.

➤ *Statement of the problem*

Closure of learning institutions in Kenya in March 2020 led to major challenges in the education sector. With the need to continue with learning, online education was the only option available. This resulted in many challenges since institutions were not prepared for it, challenges of internet connections were also realized and many students were not

able to go on with their learning. Even lecturers too were affected and were not able to fully deliver content as they intended to. These challenges affected academic libraries too since they would not serve their patrons the way they had planned. Covid-19 pandemic forced libraries to provide online services, this was a major challenge since librarians would not get in touch with their patrons due to poor internet connections and insufficient technologies provided by the parent university. Students faced challenges too since with Online learning, they were required to consult online sources of information, this was a problem because of issues relating to information explosion and inability to select the right information.

Moreover, the pressure for faculty members to choose and right information for teaching as well as find time for their personal research due to heavy workload increased. Due to this they were unable to attend library orientation programs hence posing dares in accessing information from the various databases and journals subscribed by the library.

In the worst cases, libraries face stiff competition from freely available information from internet archives. Students and lectures at most visited these sites and ignored the library portals that have immense information packaged for them. Many users currently have resulted in using the internet to get information they need hence depriving libraries of their role as information providers. This has made libraries transform the way they provide their services and resources so as to attract its target user group.

➤ *Purpose and Objective of the Study*

To determine the roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya

➤ *Research hypotheses*

H₀₁: There is no significance difference in roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya.

II. LITERATURE REVIEW

➤ *Online education*

Online education is a form of teaching and learning that takes place over the internet. According [6] online education is a type of distance learning that takes place across distance and not in a traditional classroom. Education in Kenya and around the world has been changing with the technological changes taking place. According to McIsaac and Gunawardena, 1996 as cited by [7] online learning began in the 1800s in the USA when most colleges and schools had students from diverse countries. Later, in the world war 1, radio communication opened avenues for using technology for distance education in colleges and schools. Emergence of television in the 1950s gave online education the ability to undertake visual instruction between teachers and students remotely. According to The Internet now has opened gateways for full online education, where students purely

learn online and teachers teaching online. This technology is becoming a catalyst to online learning and teaching. [8] stated that “the WWW has facilitated widespread use of websites and development of online community groups supported by web pages and various forms of communication software.” As technology keeps on advancing and providing more social spaces, more students find online education a better option. Online education has been found to be flexible, relatively cheaper and provides the ability to learn at own’s pace.

Online education “supports action learning by allowing students to engage in student centered case studies, activities and collaborative problem solving assignments that create environments where students develop learning competencies” [9]. Many lecturers have returned to teaching because of the flexibility of online learning. They find this mode of teaching better than the traditional teaching since learning can take place anywhere anytime as long as both the learner and the teacher have internet connection. However, the upcoming lecturers have additional load where he or she has to learn how to interact with the online platform/technology being used, for example Moodle. In addition, they need to be conversant with the online resources available in the library, ability to create links to those sources and upload the sources to the learning platform for students to access them. In this case, the lecturer has to liaise with librarians to get the required information and instructions provided on how certain information can be accessed and used.

➤ *Library and Online education*

Emergence of technology is one of the driving forces for changes in academic libraries. Traditionally, libraries were to provide reading spaces and physical materials for students and learners. The present academic library has to put in place institutional repositories, digital resources and online services for it to serve its users. According to [10] libraries need to have digital resources, implement resource center models for learning and publish tutorials and guidelines for information access and retrieval. All these activities are done with an aim of ensuring that the learner gets the information to support his/her academic work. As much as the library is struggling with shrinking budgets, electronic resources should be considered a necessity. This is supported by [11] who pointed out that a good number of institutions have eclipsed print library materials’ budget with electronic resources.

The current university and college students are born digital. They prefer using digital resources as opposed to print. They are comfortable typing in assignment as opposed to writing on paper. Being the largest consumers of library services pose a need for academic libraries to rethink their service provision [12]. To ensure satisfaction, librarians should be in the driving wheel in giving direction to students on the appropriate databases they should use. Information literacy programs should be emphasized so that students will have knowledge on online information searching and retrieval. Students should be supplied with catalogues, journal links and e-book sites that are easily accessible and reliable sources of information. Students are likely to use library subscribed electronic databases if they have

knowledge on how to interact with them. A study by [13] indicated that 9 out of 10 students turn to library electronic databases such as EBSCO, JSTOR and Emerald to access credible, authentic and peer reviewed research information. The library therefore has a great role to play in continuous training of the students on the usage of these databases. Changes in the learning environment compels libraries to change too, since most of the students are taking online classes and may not have the opportunity to step into the university. In this case, there should be an online library that is well structured just like the physical library.

The future of academic libraries will then need to have in place embedded librarians. This librarian will liaise with course lecturers so as to schedule sessions for information literacy lessons as one of the units within the course content. It can be tailored in such a way that some quizzes on library skills will be examined and marks awarded which is a percentage of the cumulative course marks at the end of the semester. Faculty need support in these activities because the ability to articulate information needs, find appropriate information resources and critically assess the results of an online search are key to success in e-learning and this leaves the faculty to focus on course content. Digital librarians must therefore provide technology based services to enable students access relevant information anywhere and anytime. [14] posits that digital libraries break all barriers of data transfer as it can store a large amount of information in various forms such as text, audio, video and graphic information. Students make effective searches for the information in digital libraries with sophisticated search engines. Academic libraries must then apply appropriate communication technologies to support online learning and teaching by providing access to electronic resources and services. These electronic resources are electronic journals, electronic books, digital repositories and electronic archives.

Academic libraries play a key role in facilitating research activities of any University. They oversee the training of students and faculty members on research skills such as use of citation tools like Zotero, Mendely and Ref works among others. They assist students get the needed information for their literature review from the electronic databases and other subscribed electronic books. Libraries are in constant training to ensure that faculty and students are conversant with the use of electronic resources. Libraries are no longer the physical spaces where users visit to read books and magazines, but gateways through which online information is disseminated. [15] denotes that, libraries' roles in promoting research entails providing information on citation analysis, research workflow analysis and ability to provide access to relevant information at all times

Further, libraries ensure authenticity of research by putting in place anti plagiarism software that will ensure quality research output. In this regard, students and faculty are trained on research writing skills to avoid plagiarism. This way students learn the importance of acknowledging any referred work. Moreover, libraries preserve past information and legacies which support research work.

➤ *Library and Covid-19*

Prior to the outbreak of COVID-19, most university libraries have been trying to come up with hybrid services through digitizing some of the services and resources. Digitization is a vital component in the process of proving electronic services within the library, according to [16] and is frequently referred to as a "disruptive force" in the library industry. While this is true, modern libraries are evolving from information repositories to social learning centers where knowledge is developed and shared [16].

Efforts to de-institutionalize information, according to the Research Councils of the United Kingdom (RCUK), have failed to appropriately account for the evolution of libraries through time [16]. As a result of technological improvements, librarians today have new potential to establish new employment and new ways of presenting knowledge. It is possible to create a uniform information architecture and knowledge organization structure that will make access to and retrieval of online information on the internet easier, this is one of the possibilities as proposed by Library of Beihang University 2020. This technical infrastructure can be extremely helpful since patrons are able to access unlimited digital information bearing in mind copyright issues and valuing integrity of scientific publications [17]

As students' reading habits change, so do library priorities. Many students choose to acquire resources via digital technology, and library goals change in lockstep with technological advancements [17]. Libraries face a number of issues in today's world, the most significant of which is the need to broaden their audience and provide participatory services that allow them to communicate and discuss with a reading community [17]. At this point, libraries are transformed into creative spaces where students can develop marketable products and services. Gamification is a technique that can be used to increase user engagement. "Gamification is a system that incorporates components from video games, such as competitions, activities, and creativity, into non-game environments" [17]. With Covid-19 pandemic with us, libraries can incorporate gamification in their services. This captures the attention of patrons when offering online information literacy sessions. This is because, these games serve as a motivator, improve learning, and aid in the presentation of decision-making and results, however the negative consequences of gamification should be overlooked [17].

Covid-19 pandemic has enabled librarians to know the importance of community interaction as opposed to only shelving and providing physical services. Digitization in libraries is key in libraries for continuous provision of library services. [18]. Introduction of e-books will minimize the challenge of having out-of-date and non-academic resources [19]. The issue of digital transformation of educational institutions and libraries has been hastened because of Covid-19 outbreak so as to ensure stakeholders take appropriate measures to ensure continuity of teaching and learning as well as library services. For example, in China; China's libraries were quick to respond to the pandemic. They posted COVID-

19-related information on their websites. in terms of preventative measures [20]. In recent years, the majority of libraries have moved their operations online, giving remote access to free electronic resources as well as support services. Printed materials have been transformed to digital versions to make dissemination easier [20]. As a result, even during the height of the pandemic, libraries continued to assist patrons as done in Sichuan University Library. Covid-19 therefore has triggered emphasis on digital resources, shift towards online services and changed attitude on librarianship to accommodate embedded librarianship [18]

III. METHODOLOGY

This study employed cross sectional survey research design. The target population of the study comprised of ten (10), purposefully selected heads of academic libraries in Kenya. A censuses method was conducted whereby all (10) heads of academic libraries in Kenya participated in the

study. Online Questionnaires were launched via google forms and emailed to respondents. A total of 10 questionnaires were successfully filled giving a response rate of 100%.

IV. RESULTS AND FINDINGS

➤ Descriptive Statistics

Descriptive statistical analysis was used to analyze the roles of academic libraries in support of online education during Covid-19 pandemic. In reference scaling (Likert scale) was used in the study design, 5 represented strongly agree, 4 represented agree, 3 represented neutral, 2 represented disagree and 1 represented strongly disagree, therefore strongly disagree (1) was minimum (Min), strongly agree (5) was maximum (Max). The mean was analyzed based on the respondent's choices scaled between strongly agree and strongly disagree as indicated in table 1

Table 1:- Roles of Academic Libraries in Support of Online Education during Covid-19 Pandemic

Roles played by academic libraries	N	Min	Max	Mean	Std. Dev.
Libraries provided special digital services such as ejournals and online database	10	4	5	4.80	0.422
Libraries have launched new digital services such as online delivery of books inform of eBooks	10	4	5	4.90	0.316
libraries provided specific digital resources for referencing purposes	10	3	5	4.30	0.823
Libraries improved technological infrastructure such as reliable and high speed Wi-Fi installations	10	2	5	3.50	1.434
Libraries subscribed to the most current and relevant resources in line with the learning programs of the institution	10	1	5	4.50	1.269
Libraries used Emails, Texts, WhatsApp and Zoom to reach library users off campus	10	4	5	4.70	0.483
Valid N (listwise)	10				

Source: Research data 2021

According to the findings of the study in table 1, the respondents strongly agreed (mean score of approximately 5) that libraries provided special digital services such as ejournals and online database in addition to launching of new digital services such as online delivery of books inform of e-books. Moreover, the respondents strongly agreed that libraries subscribed to the most current and relevant resources in line with the learning programs of the institution. Consequently, the respondents in the study strongly agreed that libraries used Emails, Texts, WhatsApp and Zoom to reach library users off campus. The respondents agreed (mean score of approximately 4) that libraries provided specific digital resources for referencing purposes aided by enhanced technological infrastructure such as reliable and high speed Wi-Fi installations. This could be attributed to the stratagems put in place by university libraries in Kenya to enhance online education during Covid-19 pandemic. Table 2 indicate the aspects of online education in Kenya during Covid-19 pandemic.

Table 2:- Aspects of online education during Covid-19 pandemic

Aspects of online education during Covid-19 pandemic	N	Min	Max	Mean	Std. Dev.
Students preferred online classes during Covid-19 pandemic	10	4	5	4.50	0.527
Our institution offered online classes before Covid-19 pandemic	10	2	5	4.10	0.994
Our institution offered online classes during Covid-19 pandemic	10	2	5	4.00	1.247
Our institution has plans of shifting from a physical library to online	10	2	5	3.90	1.197
Covid-19 restrictions such as partial lockdowns, restriction on movement and closure of universities culminated to increased online education use of online library services	10	4	5	4.70	0.483
Our institution has included online resources in our current budget	10	4	5	4.50	0.527
Lectures in our institution used online library resources to find relevant materials to enhance online classes.	10	4	5	4.60	0.516
Valid N (listwise)	10				

Source: Research data 2021

According to the findings of the study in table 2 the respondents strongly agreed (mean score of approximately 5) that, students preferred online classes during Covid-19 pandemic, Covid-19 restrictions such as partial lockdowns, restriction on movement and closure of universities culminated to increased online education use of online library services, Universities included online resources in their current budgets and lectures in universities used online library resources to find relevant materials to enhance online classes. Moreover, the respondents in the study agreed (mean score of approximately 4) that universities offered online classes before and during Covid-19 pandemic and have plans to shift from a physical library to online.

➤ *Roles of Academic Libraries in Support of Online Education During Covid-19 Pandemic*

The first hypothesis of this study was to test whether there is significance difference in roles played by academic libraries in support of online university education during Covid-19 pandemic, Kenya. The study used Pearson moment correlation to establish the strength, direction and significance of the relationship that exist between roles played by academic libraries and online university education during Covid-19 pandemic.

Table 3:- Correlation between roles of academic libraries and online university education during Covid-19 pandemic

		Organizational performance
Roles played by academic libraries	Pearson Correlation	0.899**
	Sig. (2-tailed)	0.000
	N	10

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

Source: Research data 2021

Based on table 3, the results of the study revealed that there was a strong statistically significant positive relationship ($r = 0.899, p < 0.05$) between roles played by academic libraries and online university education during Covid-19 pandemic. Therefore, this confirms the positive significant role played by academic libraries in support of online university education during Covid-19 pandemic.

➤ *Regression Analysis*

The study further used simple linear regression analysis to determine the effect roles played by academic libraries in support of online university education during Covid-19 pandemic.

Table 4:- Results of Linear Regression Analysis Determining the roles played by academic libraries in support of online university education during Covid-19 pandemic

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson					
1	0.899 ^a	0.808	0.784	0.289	2.481					
a. Predictors: (Constant), Roles played by academic libraries during Covid-19										
b. Dependent Variable: Online university education during Covid-19 pandemic										
ANOVA										
Model	Sum of Squares		Df	Mean Square	F	Sig.				
1	Regression	2.800	1	2.800	33.592	0.000				
	Residual	0.667	8	0.083						
	Total	3.467	9							
a. Dependent Variable: Online university education during Covid-19 pandemic										
b. Predictors: (Constant), Roles played by academic libraries during Covid-19										
Coefficients										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	0.864	0.257		3.364	0.010	0.272	1.456		
	Roles played by academic libraries during Covid-19	0.673	0.116	0.899	5.796	0.000	0.405	0.941	1.000	1.000
a. Dependent Variable: Online university education during Covid-19 pandemic										

Source: Researcher (2021)

According to the regression results in table 4, the linear regression model specifies that roles played by academic libraries accounted for 80.8% ($R^2 = 0.808$) of online university education during Covid-19 pandemic. The unstandardized beta coefficients indicate that roles played by

academic libraries ($\beta = 0.673, p < 0.05$) was a robust predictor of online university education during Covid-19 pandemic in Kenya. Hence, the linear regression results in table 4 indicate that that roles played by academic libraries has a statistical positive significant effect on online university education

during Covid-19 pandemic in Kenya. Consequently, the null hypothesis ($H_0=0$) which stated that ‘there is no statistically significance difference in effect of roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya’ was rejected and the alternative hypothesis ($H_1 \neq 0$) which states that ‘there was statistically significance difference in effect of roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya.’ was accepted. This advocates that online university education during Covid-19 pandemic was significantly enhanced through roles played by academic libraries. The findings of the study conform with the findings of study done by Ifijeh & Yusuf, (2020) on Covid-19 pandemic and the future of Nigeria's university system in quest for libraries' relevance where the findings of their study establish that the relevance of university library is determined by significant roles libraries play in support of online university education. From table 4, the Durbin-Watson statistic is 2.481 which is between 1.5 and 2.5 and therefore the data is not auto correlated. Moreover, table 4 indicates that there was no multi-collinearity as shown by tolerance ($T > 0.2$) and Variance Inflation Factor ($VIF < 10$).

Multiple Regression Model

$$Y_i = B_0 + \beta_1 X_1 + \varepsilon$$

Y_i = Online university education during Covid-19 pandemic in Kenya

B_0 = Constant

β_1 = Régression coefficient

X_1 = Roles played by academic libraries

ε =Error term

$$Y_i = 0.864 + 0.673X_1 + \varepsilon$$

➤ Interpretation

When there is 1% increase in roles played by academic libraries, online university education during Covid-19 pandemic will increase by 0.371%.

V. SUMMARY OF THE STUDY FINDINGS

The main objective of the study was to determine the roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya. The findings of the study revealed that roles played by academic libraries were a significant determinant of online university education during Covid-19 pandemic in Kenya.

➤ Roles played by academic libraries and online university education during Covid-19 pandemic

The study established that majority of the respondents strongly agreed that, students preferred online classes during Covid-19 pandemic, Covid-19 restrictions such as partial lockdowns, restriction on movement and closure of universities culminated to increased online education use of online library services. Consequently, university libraries provided special digital services such as e-journals and e-books to enhance online university education. Additionally, the results of the study revealed a strong statistically significant positive relationship between roles played by

academic libraries and online university education, specified by strong positive significant correlation of 80.8%. Further the linear regression results indicate that roles played by academic libraries in Kenya significantly determine online university education during specifically during Covid-19 pandemic.

VI. CONCLUSION

This study concluded that libraries play significant roles in support of online university education in Kenya.

➤ Institutional Recommendation

The study recommends that the government of Kenya through the ministry of education with the aid of university library heads should develop specific policies that enhance academic libraries to play their roles effectively in support of online university education.

➤ Recommendations for Further Research

The purpose of the study was to determine the roles played by academic libraries in support of online university education during Covid-19 pandemic in Kenya. This research selectively captured issues on the purpose only. Therefore, further research can be done to capture other institutions like Technical, Industrial, Vocational and Entrepreneurship Training (TIVET) institutions in Kenya establish whether the findings will be replicated. Further research could also be done on comparative roles played by academic libraries in support of online university education in private and public universities during Covid-19 pandemic in Kenya.

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