

# Influence of Learners' Awareness of Availability of Online Library Services On Its Utilisation by Distance Learners at the University of Nairobi, Kenya

Gor Ochieng Peter<sup>1</sup>, Opere William<sup>2</sup>, Ojala Auma Priscah<sup>2</sup> & Odoyo Benedict Oseno<sup>2</sup>

<sup>1</sup>Department of Curriculum, Instruction and Media, Rongo University, Kenya

<sup>2</sup>Department of Education, Rongo University, Sori Learning Centre, Kenya

\*Corresponding author: Gor Ochieng Peter

| Received: 08.04.2019 | Accepted: 17.04.2019 | Published: 30.04.2019

DOI: [10.21276/jaep.2019.3.4.2](https://doi.org/10.21276/jaep.2019.3.4.2)

## Abstract

The purpose of this study was to determine the influence of demographic and institutional factors on utilisation of online library services by distance learners of the University of Nairobi. Specifically, the study aimed at achieving eight objectives: viz. examine the influence of learners' gender on utilisation of online library services; determine the influence of learners' age on utilisation of online library services; assess the extent to which learners' computer literacy influences utilisation of online library services; establish the influence of learners' awareness of availability of online library services on utilisation of online library services; assess the influence of learners' programme of study on utilisation of online library services. The study was anchored on the positivist research paradigm. Descriptive survey and correlation research designs were adopted for this study. Data were collected using self-administered questionnaires and interview schedules. The target population consisted of 1671 learners in the School of Open and Distance Learning and 14 librarians found in the University of Nairobi namely Kikuyu Campus, Chiromo Campus and the main library Campus (The Jomo Kenyatta Memorial Library). The sample size was 312 respondents. A pre-test study was conducted using 31 learners and 1 librarian. This constituted 10% of the study sample. The researcher tested for the inter-item reliability of the instruments using Cronbach's Alpha and results ranged from 52.5%-95.8% for learners' questionnaires while that of librarians recorded 69.8%. Data analysis were done using frequency counts, the mean and standard deviation while hypothesis was tested using multiple linear regression analysis; one way analysis of variance at 0.05 level of significance. The key finding indicated a significant relationship between learners' gender and utilisation of online library services ( $r = 0.345$ ,  $R^2 = 0.119$ ,  $n=259$ ,  $p<0.05$ ). Factor analysis using KMO test of validity gave a figure of 0.806 meaning the data was highly valid since the threshold is normally 0.5. Only one component factor explained 60% of the total variance implying that there was only one principle component extracted which was digital repository at 0.849. The study further revealed a significant positive linear correlation between age and utilisation of online library services ( $r = 0.366$ ,  $R^2 = 0.134$ ,  $n=259$ ,  $p<0.05$ ). The ANOVA test gave F-statistics of 2.294 meaning 22.94% of the model fits linear line therefore, has been explained thus the model fits interpretation. The finding indicated no significant relationship between computer literacy and utilisation of online library services at ( $r = 0.234$ ,  $R^2 = 0.055$ ,  $n=259$ ,  $p<0.05$ ). The analysis obtained an F statistic of 0.854 meaning 85.4% of the model fits a linear distribution; hence, has been explained; thus, therefore, model fits interpretation. The study concludes that demographic and institutional factors influence utilisation of online library services. However, one factor, learners' computer literacy had no influence on utilisation of online library services. The study recommends that all distance learners irrespective of their gender and age should be enlightened to use online library services provided by the University of Nairobi. In order to create awareness, there is need to engage distance learners in activities that give practice and require them to demonstrate their competence in evaluating the quality of information they use. The outcome of this study may act as basis for policy formulation for both the University of Nairobi and the government of Kenya regarding Distance Learning Programmes. Further research may be carried out to ensure that these demographic and institutional factors are tested in other study samples found in other public universities in Kenya.

**Keywords:** learners, awareness online, library, services, utilisation, Distance, Kenya.

**Copyright © 2019:** This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and sources are credited.

## INTRODUCTION

Distance learning refers to formal learning provided to learners away from the University Campus. The teacher and the learner are separated physically but rely mostly on electronic communication and independent study [1]. It is a programme well suited for those learners who out of family, financial or other engagements are unable to enrol for full-time programmes in the existing conventional institutions [2, 3]. Distance learning is further conceived as a form of adult learning where the clientele may consist of those who failed to attend the formal education system or those who were unable to complete their schooling and those who would wish to continue with their education to higher levels [4, 3].

Distance learning has gained popularity in the recent times among universities in the world. This is due to the fact that universities are able to control the number of learners enrolling for the regular programmes [5]. Effective implementation of distance learning programme calls for utilisation of library resources and services, audio-visual media and application of information communication technology [1]. These resources and services are important because they can be used to communicate to learners in distance locations and at the same time enhancing effective coordination of sessions with groups or individual learners. Similarly, learners have the opportunity of getting information from print media and online library services while out of session [1]. This is to ensure that distant learners are adequately equipped with the right course content and examination techniques. Distance learners are called upon to make maximum utilisation of study centres to enable them read and search for information online [6].

The library is thus the focal point of any centre of learning because it facilitates reading, inquiry and independent study by providing relevant support services and resources for teaching and learning [7]. The library usually contains information services in different forms such as print media, electronic media and the Internet hence these services are important in supporting distance learning programmes. Most researchers in distance learning point out that digital library is an important component of distance learning programmes [8].

The work of Ganiyu [9] observes that University learners patronise their university libraries to search and retrieve relevant and up-to-date information in electronic or online format for effective teaching, learning and research purposes. The study further describes university library patrons as; undergraduate learners, postgraduate learners, researchers, information professionals, staff and other users from outside the university who intend to use the university library. Distance learners are expected to read further beyond class instructions to collect and retrieve information for

class work, assignments, seminars term papers, dissertations, theses and projects and this information could be retrieved from online library resources [9].

Online library services have emerged as an important component of research process for distance learners [10]. This is because once the learners have conducted basic research such as consulting lecturers or checking at references in their reading lists they turn to online literature to initiate their research process. Notably, online library resources and e-resources have become areas of interest in higher education. As a result of this development, university libraries worldwide have embraced regular application of Internet resources, search engines and use of e-mail services as part of their normal communication process [11, 10].

The use of online database is usually faster than searching for the information in the print format more so when looking for the information in the archives. Online library services are more direct especially when one wishes to apply combinations of words to search for several files at ago, a task that can be achieved more easily than when using printed materials [7]. Online resources can also be downloaded, printed and search outcomes saved for future reference and at the same time flexible and can be updated more often than printed tools. Distance learners have the opportunity of accessing online library services from their distant locations away from the university library through the dial-up access [12, 7, 10].

The other advantages of employing online library resources and services consist of; regular accessibility to online resources, the users have got the opportunity of operating from any location, availability of information in one place, numerous resources can be provided and finally, it creates room for easy access to information [7, 10]. Learners' usage of online library services is informed by the fact that these services enhance the quality of the research work by enabling them to take less time in doing research while taking more time in the writing of their research papers. An online library service also increases learner's ability to obtain more services, a diversity of services, and more current and up-to-date services [13].

The advent of online technology has made it possible for universities to come up with different ways of re-structuring their collections and information services in order to embrace the new developments. In responding to the new developments, university libraries have adopted the use of online information services, Information and Communication Technology (ICT) to meet the various demands of library users. Distance learners in spite of their demographic characteristics such as age, gender and religion are encouraged to explore the use of online library resources and services in order to supplement their academic activities [14, 9, 15, 10].

Globally, people are increasingly facing higher competition than ever before. Different from any other times in human history, this global competition is intensively knowledge based. ICT in education has made significant progress in China over the last two decades in higher education process and is highly applied in distance based education by the executing agencies, targeting learners and goals to be achieved. The ability of computer technologies to change university teaching and learning is becoming an acceptable norm by education technologists [16, 7].

The application of ICT in education is becoming a major contemplation as developing countries concentrate on improving the quality of education. In Africa, for example, Aiona [17] conducted a study in four main institutions offering distance learning programmes namely, the Open University of Tanzania (OUT), University of Nairobi (UoN), University of South Africa (UNISA) as well as the University of Botswana (UoB). The purpose of the study was to find out the availability of library and information support services for distance learners in those institutions.

### Statement of the Problem

Distance learners just like on-campus learners are entitled to information in all formats other than paper or print media [18]. The study further reiterates that despite this position, some distance learners lack exposure to computers while others possess poor attitude towards Information Communication Technology. The records and statistics available at the University of Nairobi library reference section at the time of conducting this study indicated that, only about 22% of distance learners had visited the online library sites while majority of them 78% relied on print based materials in the other library section [19]. This could probably explain complaints raised by lecturers, that during presentation of their term papers and assignments, majority of distance learners do not use electronic resources to support their academic work despite the fact that the University of Nairobi library subscribe to a number of these services [20].

The University of Nairobi established an infrastructural ICT Centre in March 2002 which was tasked with responsibility of offering quality and cost effective Communication Technology that meet the changing learning, teaching, research and management requirements of the University. Currently, the registration of courses and selection of degrees, journals and books as well as abstracts from the University are all online [21, 20]. Despite this positive move, the University is faced with serious challenges that ranges from ; lack of online courses, some basic facilities like computers are lacking in the Extra-Mural centres and still, some of the staff and learners who are supposed to

use to use ICT and online library services have limited knowledge of accessing these facilities and services.

This implies that about the 3,406 learners who were enrolled in the School of Open and Distance Learning during the April Intake for the 2013/2014 academic year were disadvantaged in accessing ICT facilities and online library services provided by the University thus hampering their effective utilisation of these services for learning purposes [13]. Demographic and Institutional factors are often critical in giving clues as to what factors constitute to learners failure to embrace the use of ICT infrastructure and online library services [13, 20]. It is in this context that this study set out to investigate the influence of demographic and institutional factors on utilisation of online library services at the University of Nairobi.

### Learners' awareness of availability of online library services and utilisation of online library services

Studies done by different scholars have shown that information availability alone cannot promote accessibility and utilisation of any form of information. This call for investment in marketing in order create awareness about the existing resources and services so as to attract users. For example, in a study by Tiefel [22] on library use in Ogun State University in Nigeria, the findings reported low usage of library due to lack of awareness on the part of users. Ozoemelem [23] also conducted a research on use of electronic resources by postgraduate learners of the Department of Library and Information Science of Delta State University in Nigeria. The results of this study indicated that it is important to provide information to library users because this knowledge may help them understand and come to reality with the existing library resources at the same time boosting their morale towards searching for such services. The findings further point out that through such awareness, library users are updated on more comprehensive and scholarly articles that are on the web.

Knowledge of search domain is one of the internal control factors that may positively affect perceived ease of use of digital libraries. The outcome of research on information retrieval systems indicates that the domain knowledge can support more efficient search by helping users to identify and isolate relevant information from irrelevant resources thus facilitating learning of search principles and formulating more accurate queries [24, 13]. Users need to familiarise themselves with the subject domain they are looking for in order to enhance their search activities. The findings are in agreement with the recommendations of library science researchers that emphasise that this provides customised interfaces to different individuals [25].

Mwatela [13] carried out a study on factors influencing utilisation of library services by learners of Mombasa Campus, University of Nairobi, Kenya. The

results showed that awareness is gained through library orientation and its objective is to introduce the student to the library in terms of the physical plant, policies and procedures as well as resources and services. Library orientation and instruction is needed by the university learners to enable them find their way intelligently through the information maze. Further, library orientation thus refers to the act of introducing the student and faculty to the library, its collections, important areas and resources, basic elements of using library and the services provided by the librarian. By highlighting the special features of the library to new learners, the librarians are able to create curiosity which later on serves as a motivation to use the library.

Mwatela [13] further posit that library orientation is a programme is a warm welcome to the new learners, to offset fears of going to the library and exposing their ignorance by asking for direction and assistance. It aims at letting new learners know that the library consist of people, books and to show them that people working in the library are not too busy to help them. The programme is designed to demonstrate that people working in the library are approachable and friendly. In a similar study by Ojo and Akande [26] on learners access, usage and awareness of electronic information resources in Nigeria, the findings revealed that, during orientation, the new learners are introduced to a few titles of reference sources and indexes for the purpose of awakening them to the wealth of resources beyond what they knew in the high school and other institutions. In simple terms such orientation is expected to motivate a desire for further assistance in using the library.

Orientation provides learners with the opportunity to learn about many varied resources available for their use. Library orientation creates awareness to library users of the variety of library and information resources available through the library, for instance; it is during library orientation that the new learners are informed of the online electronic resources that can be accessed through the library and information system of an institution.

Gadd, Hunt, Newbold and Stubbings [27] in a study on reviewing library induction practices at Loughborough University, the results indicated that induction sessions aims at emphasising the role of the library in supporting student learning at the campus by making student develop a familiarity with library and information resources and services available. From the previous studies, it appears that inadequate research has been done in relation to online library awareness among distance learners in Kenyan public universities more so at the University of Nairobi hence the need to conduct this study to establish influence of online library awareness on distance learners use of online library services.

## METHODOLOGY

The research paradigm employed in this study is the positivist approach. Positivism emerged as a paradigm in the 19<sup>th</sup> Century with Auguste Comte's rejection of metaphysics and assertion that only scientific knowledge can reveal the truth about reality. The positivist paradigm asserts that real events can be observed empirically and explained with logical analysis. The study adopted descriptive survey design. Orodho [28] defines descriptive survey as a method of collecting information by interviewing or administering questionnaire to sample of individuals.

The study targeted learners enrolled for Bachelor of Education Arts (B.Ed Arts) and Bachelor of Education Science (B.Ed Science), in the School of Open and Distance Learning (ODL) of the University of Nairobi. Learners who were in their third year of study during the April intake of 2013/2014 academic year were selected for the study. This group level was chosen owing to the length of time they had taken at the University thus would provide the relevant and necessary information required by the researcher. Records from the two programmes indicated that B.Ed Arts had a total of 1,578 learners out of which 848 were males and 730 were females. The programme of B.Ed Science had 93 learners, which included 58 males and 35 females.

**Table-1: Population of third year learners (April intake 2013/2014) and librarians**

Category	Male	Female	Total
B.Ed (Arts)	848	730	1578
B.Ed (Science)	58	35	93
Librarians	09	05	14
<b>Total</b>	<b>915</b>	<b>770</b>	<b>1685</b>

The sample size for this study was determined by using the following formula, which was developed and advanced by Krejcie and Morgan [29], as cited in Isaac and Michael [30].

**Table-2: Sample size of third year learners (April intake 2013/2014) and librarians**

Category	Male	Female	Total
B.Ed Arts	121	103	224
B.Ed Science	47	27	74
Librarians	09	05	14
<b>Total</b>	<b>177</b>	<b>135</b>	<b>312</b>

Source: ODL (2014)

The researcher used two set of questionnaires to collect data from the respondents. One set of questionnaire was developed for learners while another set of questionnaire was developed for librarians. The researcher gave preference to use of questionnaire because it eliminates bias on the side of the researcher and the respondents while the interview schedule was



used to corroborate responses received from questionnaires [31].

Face validity, according to Kalai [32] refers to subjective judgement that the test appear to cover the relevant content. It also refers to subjective judgement of assessors about what the instrument appears to be measuring on the face value. The researcher applied expert judgement to arrive at the face value of the instruments. Finally, in order to determine the validity of the whole document, a Kaiser Meyer Olkin (KMO) formula test of validity was applied. A KMO test of validity provided a figure of 0.806. This implied that the sampled data was highly valid since the threshold is normally 0.5. The researcher applied expert knowledge in selecting essential questions to be included in the interview schedule.

The reliability of the full instrument was obtained using Cronbach's Alpha coefficient. This refers to a measure of internal consistency of set items in a group. It is thus considered to be a measure of skilled reliability of an instrument. Cronbach's Alpha Coefficient was used to measure inter-item reliability of the questionnaires. Each item of the questionnaire, measuring the same characteristics was treated as a mini instrument on its own. The results from Table-2 shows that Cronbach's Alpha for section B of the instrument was 0.523 (52.3 %) with an F-value of 35.609 out of the seven (7) items. In section C of the instrument Cronbach's Alpha was 0.749 (74.9%) while the F value was 15.809 out of the seven (7) items. Authority to conduct research was obtained from National Commission for Science, Technology and Innovation (NACOSTI) before setting out for data collection. The researcher also reported to the Director

of Open, Distance and eLearning (ODEL) Campus for clearance. The researcher obtained permission from the Dean, ODL to conduct research. Simple random sampling was used to gather information from respondents. In this regard, the researcher used pieces of papers written "Yes" for the number of learners required for the study sample and "No" for the remaining portion. These papers were thoroughly mixed and shuffled in a container for learners to pick to ensure that each learner had an equal chance of being selected.

First, questionnaires were personally administered to the respondents with information to the respondents that filling in the questionnaire instrument was voluntary and that the purpose of the study was purely to identify ways of improving online library utilisation in distance learning. Second, respondents were assured of utmost confidentiality of the information and that its purpose was for the study only. Confidentiality was assured through the use of captive audience to enhance direct contact with the respondents. An opening note was addressed to all the respondents to confirm this commitment.

## RESULTS AND DISCUSSIONS

### Learners' Awareness and Utilisation of online Digital Repository

The study was interested in establishing the influence of learners' awareness of availability of online library services on utilisation of online digital repository. In carrying out this investigation, respondents were asked to indicate the extent to which their level of awareness influenced utilisation of online digital repository. The results are shown in Table-2.

**Table-2: Learners' Awareness and Utilisation of online Digital Repository**

Awareness enhances utilisation of digital repository	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	74	28.6	28.6
<b>Less extent</b>	16	6.2	34.8
<b>Not sure</b>	42	16.1	50.9
<b>Great extent</b>	98	37.9	96.3
<b>Very great extent</b>	29	3.7	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>2.97</b>		

The results from Table-2 shows that, 74 (28.6%) and 16 (6.2) of the respondents registered for not at all and less extent, respectively. On the other hand 42 (16.1%) respondents said they were not sure. Similarly, 98 (37.9%) and 29 (3.7%) respondents scored in the great extent and very great extent levels, respectively. The impression that emerges from the finding is that majority 127 (41.6%) respondents supported the opinion that learners' level of awareness influenced utilisation of online digital repository while only 90 (34.8%) respondents disagreed with the

statement. The mean was calculated at 2.97. The findings was supported by Naidu [1].

### Learners' Awareness and Utilisation of online Newspapers

The study sought to establish the influence of learners' awareness of availability of online library services on utilisation of online newspapers. In order to carry out this investigation, respondents were asked to indicate the extent to which learners' awareness influenced utilisation of online newspapers. The results are summarised in Table-3.

**Table-3: Learners' Awareness and Utilisation on online Newspapers**

Awareness enhances utilisation of online newspapers	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	61	23.6	23.6
<b>Less extent</b>	24	9.3	32.9
<b>Not sure</b>	130	50.3	83.2
<b>Great extent</b>	15	5.6	88.8
<b>Very great extent</b>	29	11.2	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>2.72</b>		

As shown in Table-3, the results indicate that 61 (23.6%) and 24 (9.3%) respondents scored in the not at all and less extent levels. On the other hand, only 15 (5.6%) and 29 (11.2%) respondents indicated their support for the statement that learners' awareness influence utilisation of online newspapers. The findings further reveal that majority of the respondents 130 (50.3%) said they were not sure, meaning they were not aware of availability of online newspapers. This is a clear indication that there was lack of awareness concerning availability of online newspapers. The implication of this finding which was consistent with study by Ojo and Akande [26] was that, there was less

influence of learners' awareness on utilisation of online newspapers. The mean score was calculated at 2.72.

#### **Learners' Awareness and Utilisation of online Public Access Catalogue**

The study was interested in establishing influence of learners' awareness of availability of online library services on utilisation of OPAC. In order to accomplish this investigation, respondents were asked to indicate the extent to which learners' awareness influenced utilisation of online public access catalogue. The results are shown in Table-4.

**Table-4: Learners' Awareness and Utilisation of online Public Access Catalogue**

Awareness enhances utilisation of online public access catalogue	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	66	26.1	26.1
<b>Less extent</b>	15	5.6	31.7
<b>Not sure</b>	32	12.4	44.1
<b>Great extent</b>	106	41.0	85.1
<b>Very great extent</b>	40	14.9	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>3.15</b>		

The results in Table 4 shows that 66(26.1%) and 15(5.6%) scored in the not at all and less extent levels respectively. Another 32 (12.4%) indicated that they were not sure. On the other hand, 106 (41.0%) and 40 (14.9%) scored in the great extent and very great extent levels respectively. The implication of this finding is that majority 146 (55.9%) respondents supported the opinion that learners' awareness influenced utilisation of online public access catalogue. The mean score was calculated at 3.15.

#### **Learners' Awareness and Utilisation of online Electronic Books**

The study intended to establish the influence of awareness on utilisation of online electronic books. In order to accomplish this task, respondents were asked to indicate the extent to which learners' awareness influenced utilisation of online electronic books. The results are shown in Table-5.

**Table-5: Learners' Awareness and Utilisation of online Electronic Books**

Awareness enhances utilisation of online electronic books	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	53	20.5	20.5
<b>Less extent</b>	21	8.1	28.6
<b>Not sure</b>	125	48.4	77.0
<b>Great extent</b>	21	8.1	85.1
<b>Very great extent</b>	39	14.9	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>2.90</b>		

The findings in Table-5 shows that 53 (20.5%) and 21 (8.1%) respondents scored in the not at all and less extent levels respectively. Another majority 125 (48.4%) indicated they were not sure. Similarly, 21 (8.1%) and 39 (14.9%) scored in the great extent and very great extent levels respectively. The impression of this result is that 74 (28.6%) of the respondent did not support the view that learners awareness influence utilisation of online library services. At the same time 70 (23.0%) of the respondent supported the opinion. However, it also emerges from the findings that majority of the respondent 125 (48.4%) were not aware of the existence of online electronic books. This lack of

awareness was an impediment to learners' utilisation of online electronic books. The mean was calculated at 2.90.

#### Learners' Awareness and Utilisation of Electronic Database

The study set out to investigate influence of learners' awareness on utilisation of electronic database. In trying to accomplish this investigation, respondents were asked to indicate the extent to which learners' awareness influenced utilisation of online database. The results are contained in Table-6.

**Table-6: Learners' Awareness and Utilisation of Electronic Database**

Awareness enhances utilisation of online electronic journals	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	142	54.7	54.7
<b>Less extent</b>	26	9.9	64.6
<b>Not sure</b>	27	10.6	75.2
<b>Great extent</b>	24	9.3	84.5
<b>Very great extent</b>	40	15.5	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>2.20</b>		

The result from Table-6 shows that, 142 (54.7% of the respondents scored in the not at all level while 26(9.9%) scored in the less extent category. Another 27(10.6%) respondents indicated they were not sure. Likewise, 24 (.3%) and 40 (15.5%) respondents scored in the great extent and very great extent levels respectively. The impression of the result is that majority of the respondents 168 (64.6) indicated that learners level of awareness does not influence utilisation of electronic database. However, only 64(24.8%) respondents supported the Opinion [7]. The mean score was found to be 2.20.

#### Learners' Awareness and Utilisation of Electronic Journals

The study was interested in establishing influence of learners' awareness on utilisation of online electronics journals. In order to carry out this investigation, respondents were asked to indicate the extent to which learners' awareness influenced utilisation of electronic journals. The results were contained in Table-7.

**Table-7: Learners' Awareness and Utilisation of online Electronic Journals**

Awareness enhance utilisation of online database	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	55	21.1	21.1
<b>Less extent</b>	24	9.3	30.4
<b>Not sure</b>	109	42.2	72.7
<b>Great extent</b>	32	12.4	85.1
<b>Very great extent</b>	39	14.9	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>2.91</b>		

The results shows in Table-7 reveal that, 55 (21.1%) the respondents scored in the not at all level while only 24(9.3%) respondents said to a less extent. Another 109 (42.2%) respondents indicated that they were not sure. Similarly, 32 (12.4%) and 39 (14.9%) respondents stated great extent and very great extent, respectively. A close look of the data further reveals that majority 109 (42.2%) respondents said they were not sure whether learners' awareness influenced utilisation of online electronic journals thus an

impediment to their effective utilisation these services. The mean was calculated at 2.91.

#### Learners' Awareness and Utilisation of online Research Papers

The study further investigated the influence of learners' awareness on utilisation of online research papers. In an attempt to execute this investigation, respondents were asked to indicate the extent to which learners' awareness influenced utilisation of online research papers. The results are shown in Table-8.

**Table-8: Learners' Awareness and Utilisation of online Research Papers**

Awareness enhances utilisation of online research papers	Frequency (f)	Percentage %	Cumulative percent
<b>Not at all</b>	68	26.1	26.1
<b>Less extent</b>	23	8.7	34.8
<b>Not sure</b>	129	49.1	83.9
<b>Great extent</b>	18	6.8	90.7
<b>Very great extent</b>	21	9.3	100.0
Total	<b>259</b>	<b>100.0</b>	
Mean	<b>2.62</b>		

As shown in Table-8, the findings reveals that 68(26.1%) of the respondent indicated not at all while 23 (8.7%) respondents said to a less extent. However, a majority 129 (49.1%) respondents confirmed that they were not sure. Likewise another 18 (6.8%) and 21 (9.3%) respondents supported the opinion that awareness influenced utilisation of online research papers. The impression that one can derive from this finding is that majority of the respondents, 129(49.1%) were not sure whether learners' awareness influenced their utilisation of online research papers. The implication of this result of this result is that many learners were not aware of the existence of online research papers hence an impediment to their effective utilisation of online research papers during their studies.

#### **Mean scores on Learners' Awareness and Utilisation of online Library Services**

The study further investigated mean scores on influence of learners' awareness of availability of online library services on utilisation of online library services. In order to accomplish this task, scores of means on different online library services were computed and compared. Further the average mean of means was calculated to act as a basis for making any meaningful conclusions. It was therefore, argued that any online library service that scored a mean above the average mean of means was rated high while any online library service that scored a mean below the mean of means was regarded as low. The results are shown in Table-9.

**Table-9: Learners' Awareness and Utilisation of online Library Services**

<b>Level library source</b>	<b>Mean</b>	<b>Std. Dev.</b>
Online digital repository	2.97	0.270
Online newspapers	2.72	0.020
Online public access (OPAC)	3.15	0.450
Electronic books	2.90	0.200
Electronic journals	2.91	0.210
Online database	2.20	0.500
Online research papers	2.63	0.070
<b>Total Mean</b>	<b>19.48</b>	
<b>Base mean</b>	<b>2.78</b>	

The results of data analysis from Table 9 show that online public access scored the highest mean of 3.15. This was closely followed by online digital repository and online electronic journals at means of 2.97 and 2.91 respectively. On the other hand, online electronic books scored a mean of 2.90 followed by online newspapers with a mean of 2.72. Other scores were registered by online research papers 2.63 and online database 2.20 [7]. The impression that one can derive from these results is that those services that scored above the mean of means which was 2.78 were highly influenced by learners' awareness of availability of online library services. These services consist of OPAC, online digital repository, electronic books and electronic journals. On the other hand, those online library services that scored means below the mean of means 2.78 were regarded as having low influence of learners' awareness. The online services that recorded low means included online research papers, online

newspapers and online database. The implication of this finding is that learners' awareness influenced utilisation of online library services as revealed by the services that registered mean scores above the mean of means which was 2.78. This findings support, the finding from interview schedule. For example when asked to express their opinion regarding whether the University had created awareness concerning availability of online library services to distance learners, one of the librarians from Main campus library had this to say; "Awareness is gained through library orientation and induction. The main objective of awareness is to introduce the student to the physical plant of the library, its policies and procedures as well as its resources and services; however, for no apparent reasons, the orientation and induction programmes are dying out due to laxity and lack of seriousness more so from librarians. Further, learners do not use the online library because they don't know the website exist, therefore,



there was need for the University to improve its orientation about the library website because simply providing online resources and services without proper induction is insufficient”

The relationship between learners’ awareness of availability and utilisation of online library services (measured by mean scores) was investigated using

multiple linear regression analysis. The null hypothesis stated as follows.

**H<sub>0</sub> There was no significant relationship between learners’ awareness of availability and utilisation of online library services at the University of Nairobi.**

The results are shown in Table-10.

**Table-10: Regression analysis results on learners’ Awareness about Availability of online Library Services and Utilisation of such**

Model	R	R <sup>2</sup>	Adj.R <sup>2</sup>	Std.err of estimate	R square charge	F change	df1	df2	Sig. change
1	0.375	0.141	0.083	1.485	0.141	2.423	101	E20	0.011

The results from Table-10 shows that the coefficient correlation was,  $r = 0.375$  implying that there was a positive relationship between independent and dependent variables. The  $R^2$  is the coefficient of the determination which is  $R^2 = 0.141$ , meaning that there was a positive linear correlation. The significance of change also referred to as P value is  $p = 0.011$ . This value is pegged on the study putting the limit at 0.05 or 95 percent degree of confidence interval. Since  $p = 0.011$  is less than 0.05 ( $p < 0.05$ ), we therefore, reject the null hypothesis and accept the alternative which states that there was a significant relationship between learners awareness of the availability of online library services and utilisation of online library services at the University of Nairobi. The finding was supported by Gadd *et al.*, [27] when they reiterated the significance of online studies.

The findings from the learners’ respondents are also in agreement with the librarian’s perceptions that the university is creating awareness concerning availability of online library services to distance learners at a mean of 0.796. The results further concurs with the findings of an earlier study by Ojo and Akande [26] who carried out a study on learners access, usage and awareness of the electronic information resources in Nigeria which revealed that library orientation creates awareness of variety of library and information resources which intern lead to effective utilisation of online library services. Further investigation was done using ANOVA to test how the regression model statistically significantly predicts the outcome variable (the significant relationship between the dependent and independent variable). Table 11 presents the results.

**Table-11: Analysis of Variance**

Model	Sum of square	df	Mean square	f	Sig.
Regression	53.460	10	5.346	2.423	0.011
Residual	326.515	148	2.206		
<b>Total</b>	<b>379.975</b>	<b>158</b>			

The ANOVA results presented in Table-11 indicate that F statistic is 2.423 which meant that 24.23% of the model fits the linear line and therefore, has been explained by the independent variables. This implies that the model fits interpretation. Gadd *et al.*, [27] supports online usage by learners.

## CONCLUSIONS

This study concluded that there was no significant relationship between learners’ computer literacy and utilisation of online library services. This result showed that learners’ computer literacy did not have a significant influence on their use of online library services.

## RECOMMENDATION

The university of Nairobi administration should come up with measures of improving user education through online library orientation, induction and instruction. This will enhance effective utilisation of online library

## REFERENCES

1. Naidu, S. (2006). *E-learning: A guidebook of principles, procedures and practices*. Commonwealth Educational Media Centre for Asia (CEMCA).
2. Garrison, D., & Anderson, T. (2003). *E-Learning in the 21st Century*. London: Routledge Falmer.
3. Shephard, M. (2008). Use of online teacher education in remote, indigenous areas central, *American Journal of Indigenous Education*, 1(2), 54-70.
4. Oladeji, S. O. (2000). An evaluative study of the Center for External Studies, University of Ibadan, Nigeria 1988-1998. Unpublished M. Ed Thesis submitted to the University of Ibadan.
5. Farahani, G. O. (2003). Existence and Importance of Online Interaction. A PhD Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University, Virginia, USA.

6. Sacchanand, C. (2002). Information literacy instruction to distance students in higher education: Librarians' key role. 68<sup>th</sup> IFLA Council and General Conference August 18-24, 2002. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?>
7. Candela, L., Athanasopoulos, G., Castelli, D., El Raheb, K., Innocenti, P., Ioannidis, Y., Katifori, A., Nika, A., Vullo, G., & Ross, S. (2011). Coordination action on digital library interoperability, best practices and modelling foundation. Brussels: European Union.
8. Caspers, J., Fritts, J., & Gover, H. (2001). Beyond the rhetoric: a study of the impact of the ACRL guidelines for distance learning library services on selected distance learning programs in higher education. *Journal of Library Administration*, 31(3-4), 127-148.
9. Ganiyu, O. Q. (2013). Influence of demographic factors on use of online library resources by Undergraduate students in two private Nigerian University Libraries. *Library Philosophy and Practice* (e-journal). Paper 976.
10. Owusu-Ansah, S., & Bubuama, C. K. (2015). Accessing academic library services by distance learners. *Library Philosophy and Practice* (e-journal), 1347.
11. Kindilchie, A. I., & Samarraie, I. F. (2008). Interaction and impact of electronic information resources on Qatar University Faculty. *Libri*, 58(4), 281-293.
12. Dadzie, P. S. (2005). Electronic resources: access and usage at Ashesi University College. *Campus-Wide Information Systems*, 22(5), 290-297.
13. Mwatela, W. M. (2013). Factors influencing utilization of library services and resources: The Case of University of Nairobi Mombasa Campus Library. *Unpublished MA Thesis. Mombasa: University of Nairobi*.
14. Islam, M. A. (2011). Effects of demographics factors on e-learning effectiveness in a higher learning institution in Malaysia. *International Educational Studies*, 4(1), 4-7.
15. Nkamnebe, E. C., Udem, O. K., & Nkamnebe, C. B. (2014). Evaluation of the use of university library resources and services by the students of Paul University, Awka, Anambra state, Nigeria. *Library Philosophy and practice*, 0\_1.
16. Abbon, P., Albrecht, E., Alexakhin, V. Y., Alexandrov, Y., Alexeev, G. D., Alekseev, M. G., ... & Balestra, F. (2007). The COMPASS experiment at CERN. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 577(3), 455-518.
17. Aina, L. O. (2008). Library and Information Services Support for distant education programme. *African Universities: proposal for future development. Nigerian Libraries*, 41, 1-11.
18. Nyamboga, C. M., Ongondo, M. A., & Ongus, R. W. (2004). Experiences in the use of the internet at Egerton University Library, Njoro-Kenya. *DESIDOC Journal of Library & Information Technology*, 24(5).
19. Jomo Kenyatta Memorial Library. (2015). Details of Request for online Library Services by Distance learners at the University of Nairobi Library: Nairobi Kenya: University of Nairobi.
20. Githinji, R. M. (2014). Factors influencing University of Nairobi degree students' access and utilisation of information communication and technology facilities. Unpublished M.Ed Thesis submitted to the University of Nairobi.
21. Poniman, A., & Lumban-tobing, P. (2004). Developing the National Land Resource Database for Supporting Spatial Land Use Planning.
22. Tiefel, V. M. (1995). Library user education: Examining its past, projecting its future, library trends and fall.
23. Ozoemelem, O. A. (2009). *Use of electronic resources by postgraduate. Students of the Department of library and information science. Abraka, Nigeria: Delta State University*.
24. Meadow, C. T., Wang, J., Yuan, W. J., & Yuan, W. A. (1995). Study of user performance and attitudes with information retrieval interfaces. *Journal of the American Society for information Science*, 46(7), 490-505.
25. Archer, N. P., Head, M. M., & Yuan, Y. (1996). Patterns in information search for decision making: the effects of information abstraction. *International Journal of Human-Computer Studies*, 45(5), 599-616.
26. Ojo, R. A., & Akande, S. O. (2005). Students access, usage and awareness of electronic information resources at University College, Hospital University of Ibadan, Nigeria. *Lagos Journal of Library and Information Science*, 11(2), 151-165.
27. Gadd, E., Stubbings, R., Hunt, M., & Newbold, C. (2001). In with the new: reviewing library induction practices at Loughborough University. *New library world*, 102(7/8), 247-254.
28. Orodho, A. J. (2003). Essentials of educational and social sciences research methods. Nairobi: Masola Publishers.
29. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
30. Isaac, S., & Michael, W. B. (1981). Handbook in research and evaluation. San Diego: EdITS Publishers.
31. Kombo, D. K., & Tromp, A. (2006). Proposal and thesis writing. Makuyu: DonBosco Printing Press.
32. Kalai, A. T., & Sastry, R. (2009). The Isotron Algorithm: High-Dimensional Isotonic Regression. In *COLT*.