Relationship between Students' Awareness and Utilization of Open Educational Resources for Academic Work in Private Universities in Kenya

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Abstract

Access to information and knowledge is the fundamental right of every human, but this is not always achieved without limitations. Today, an increasing number of institutions and individuals share digital resources via the Internet free of any legal, financial or technical barriers. The high demand for university education in Kenya has put more pressure on the existing learning resources such as print resources, whose cost partly makes education more expensive among other factors. As such, open educational resources may be part of a solution to this problem. The purpose of this study was to establish the relationship between students' awareness and utilization of open educational resources for academic work in private universities in Kenya Correlational research design was used and the target population of the study was 5,375 undergraduate part time students. Purposive sampling was used to select participating private universities since not all of them offer Bachelor of Education part time programme, while proportionate sampling was used to determine the respondents from each university. Simple random sampling was used to select respondents from the 3rd and 4th years. Data was collected using students' questionnaire. Reliability coefficient was estimated using the Cronbach alpha. A reliability coefficient of 0.77 was found acceptable for this study since it was way above the 0.7 alpha coefficient set as adequate. Descriptive statistics were used to analyse quantitative data while regression analysis was used to test the hypotheses. The study revealed that there is a positive relationship between utilization and awareness index and therefore the relationship is significant (r (321) = 0.373; p <0.05). The researcher concluded that the students need to be sensitized more on OERs so that their awareness is increased and thereby increasing OERs utilization.

Keywords: Open Educational Resources, Awareness, Creative Commons, Open sources, Information Communication and Technology

Background to the Study

The emergence of the Internet and other technological innovations as the core tools for information retrieval, social networking and knowledge transfer has radically changed Higher Education (HE). The internet has become the most common communication and research tool for most people worldwide (Almobarraz, 2007). Students in HE throughout the world use the Internet increasingly as their main tool for research. Technological innovations have moved education from being closed behind the four walls of the classrooms to openness and it has made learners not only consumers but creators too (Wiley, 2006). Thus, openness has become a fundamental value; underlying significant

changes in society and is a prerequisite to changes institutions of higher education needs in order for them to remain relevant to the society in which they exist (Wiley & Hilton, 2009). Many institutions have become open by developing programmes of open sharing of educational materials and ideas. Institutions of HE are addressing openness as an organizational value for they desire to remain relevant to their learners and to contribute to the positive advancement in the field of education and especially for Kenya.

In Kenya there has been rapid expansion in the HE of late due to the increasing number of students attaining university cut off point of C+ and above. This has forced the HE institutions to diversify their programmes and modes of content delivery. As such new flexible learning programmes like Institutional based programmes, open and distance learning, the Virtual Learning environments and e- learning are being adapted in a number of HE learning institutions (Adala, 2016). The many modes of delivery have increased the cost of running these institutions. However, due to the higher demand for higher education, universities have admitted more students leading to overcrowding of students in lecture halls, with lecturers adopting teacher centred approach like formal lecturing. Due to limited resources in the universities, a number of students with minimum cut- off points are not able to access HE (Gudo, Olel & Oanda, 2011).

Institutions of higher education have reached out to practicing teachers by launching flexible educational programmes that are pursued without necessarily resigning from work or taking a study leave. However, some private and public universities in Kenya have very limited access to modern computing and communications technology, lack the appropriate infrastructure and information to access needed skills. Such technologies are expected to help learners and the lecturers to collaborate in research across the globe, access the latest researches, and any other new knowledge. Nevertheless, according to Kashorda and Waema (2014) this situation has since changed due to the infrastructural development in areas ICT as shown in Table 1.

Table 1

Internet Indicators for 17 Universities in Kenya between 2008 and 2013

Year of Study	Total Students	Total PCs owned by students	Total bandwidth Mb/s	Internet bandwidth per 1000 students	PCs per 100 students	Percentage of students with PCs at home
2008	162,319	8,907	70.8	0.436	5.5	27
2013	339,418	13,815	1,431.5	4.22	4.07	30.4

Note: Data on e-readiness data 2008 and 2013from Kashorda and Waema (2014)

Table 1 shows a comparison between the year 2008 and 2013 whereby the number of students in the universities under study went up. However the total number of students with personal

computers still remains low compared to the total number of students. The percentage of students with personal computers at home between 2008 to 2013 increased from 27% to 30.4% respectively. This means that majority of the students either do not use computers or they depend on the cyber cafes for internet utilization.

The development of OERs has become a promising development in the education sector. It was first adopted at a Forum on the Impact of Open Courseware (OCW) for Higher Education in Developing Countries (UNESCO, 2002). Open educational resources refers to any educational resources like curriculum maps, course materials, textbooks, streaming videos, multimedia applications and any other materials that have been designed for use in teaching and learning. Those materials are openly available for use by educators and students without an accompanying need to pay royalties, passwords or licence fees (Butcher, 2015). They are available over the internet and do not have technical, monetary or legal barriers. Users can learn from, create, adapt, reuse, and build upon them as long as license restrictions such as giving the original creator attribution and not using new adaptations for profit (Hylén, 2006). The users can also freely produce print versions of the digitized materials. They include learning modules, journals, learning objects and collections, open licences that manage the resources, open software to develop and distribute the content. Open educational resources have gained increased use in higher education for their potential and promise to remove demographic, economic, and geographic educational boundaries and to promote life-long learning and personalized learning in the world (Sheila & Wilbert, 2008).

Kenya is a signatory to the UNESCO's 2012 Paris Declaration on Open Education Resources licensed under Creative Commons open licenses. Thus students from Kenyan institutions of higher learning are part and parcel of the making and utilization of OERs. However, there are a number of factors required for effective utilization. Among them are; awareness, perceptions, readiness, increased broadband availability, increased quality of devices used by learners, infrastructural development, institutional policies, time, lower cost of internet connectivity, among others (OECD, 2007).

According to Grodecka and Sliwowski, (2014) OERs face numerous limitations despite the many advantages. This is because OERs are still in the early adoption stage (Mc Kerlich, Ives & McGreal, 2013), which calls for a research on factors slowing the spread of their usage. Research has shown that a wider acceptance of OERs requires development of awareness and reaching an understanding of all their dimensions, increase of recognisability of the OER repositories and development of online collaborative communities (Torres, 2013). According to Huang, Jessica, Yan and Hu (2015) OERs as an innovation has been very influential in China and it is expected to bring changes to higher education. They further point that there is very limited literature on OER usage especially from students in higher institutions of learning in developing countries.

Awareness is a great factor that influences the utilization of resources. Without the idea on existence of the OERs, many students might not be able to trace them and even use them for the academic work. Increased broadband availability and low cost of internet connectivity is very important especially accessibility of materials in an affordable manner. The aspect of preparedness comes in after the students become aware of the existence of OERs. The user is expected to be trained on different skills about accessibility, choice of good quality OERs and different sites to find OERs. Students' readiness also touches on the availability of the computers, skills acquisition, availability of broadband and resources (Mays, 2014).

The education goals of Kenya's Vision 2030 are to provide globally competitive quality education and training and research for development. This may be achieved through reducing literacy by increasing access to education and improving the quality and relevance of education, enhance efficiency and at the same time reduces unit costs (Wosyanju, 2009). In Kenya, the production of all cadres of teachers is gradually shifting to the university. This is the case because government has been phasing out lower teaching certificates colleges and diplomas replacing them with universities. This phase-out has stimulated certificate teachers to upgrade their qualifications. However, the implementation has been limited by existing resources (Maritim, 2009). Due to the limited resources in the libraries and repositories, many lecturers are turning to the internet for OERs. It is therefore of great need to understand the factors that influence the adoption and ultimately the utilization of these resources and thereby to learn their needs and how well they can be utilized (Mtebe & Raisamo, 2014).

Maritim (2009) suggests that the delivery medium for school-based programmes in Sub- Saharan Africa requires supplementation because of limited face-to-face group encounters and scarcity of reference materials. The advent of open content or OERs, a global intellectual resource of teaching materials, offers a significant breakthrough in terms of access of information and promotion of quality in HE education (Thakrar et al., 2009). Higher education in Kenya has been facing many challenges such as limited physical facilities, learning resources and poorly equipped lecture theatres and computer laboratories. Hilton, (2016) states that resources are a vital component in many higher education contexts. Increasing textbook prices, coupled with general rising costs of higher education have led to some instructors substituting open educational resources (OER) for commercial textbooks. There is therefore, need to use better instructional processes to alleviate this problem. To couple this up Obura (2010) says that library users' attitude to information is gradually shifting from the printed documents to electronic resources and thus, it is the prerogative of the students to know the details of the availability and organization of e-resources like online journals and databases, electronic theses and dissertations, government publications and online newspapers in libraries.

According to UNESCO (2015a) lowering cost of education, improving the quality of course materials and boosting student engagement are at the top of virtually every higher education institution's wish list. Cost and quality are the key elements that influence instructor's decisions about course materials. Students skip or defer a class due to the high prices of the required learning resources. However, with the internet and introduction of information communication technologies the trend in higher education has taken a drastic change. Coffin (2012) in a study done in Canada established that text books had become very expensive and unaffordable. The students are forced to turn to open textbooks since they are in digital format and are accessed at no cost and print versions are also available at a low cost. This is an indicator that the cost of print text books is way above what many of the university students can achieve. Rieger, Reinsberg and Hendricks (2017) point out those using open textbooks in universities can help students to save lots of money because they will avoid purchasing the expensive textbooks. They further say that the saving can be realized with little to no sacrifice in the quality or learners outcomes.

The Kenyan government is planning to launch the National Open University of Kenya (NOUK) which is to be located at the Multi Media University. This is for the sole purpose of improving access to higher education. National Open University of Kenya is expected to all the counties

through the use of ICT. It will use the e learning mode which will most probably put pressure on the already existing resources and thereby opening up other challenges (Adala, 2016). There is therefore need to determine students utilization of OERs for academic work in private Universities in Kenya. The intervention to overcome such challenges may be through the use of OERs in the training process so as to expand access and the quality of information since latest OERs publications can always be accessed. However, the uptake and reuse of some of these resources is very low in Sub-Saharan higher educational institutions (Mtebe & Raisamo, 2014).

Objective of the Study
The purpose of the study was to determine the relationship between students' awareness of OERs and their utilization for academic work in private universities in Kenya.

Hypotheses of the Study
The following research hypotheses were tested for this study.

H_0 There is no statistically significant relationship between student awareness on OERs and utilization of OERs for academic work in Kenyan private Universities.

Literature Review

Students' Awareness of Open Educational Resources
According to Panda and Chen (2013) in a study titled needs for and utilization of OERs in distance education in China it was established that even the lecturers did not have a clear understanding of OERs and the other materials available online. The study brought out the misunderstanding that is there among faculty and that they mistake all the resources available for use online. This study reveals that even the lecturers who are the facilitators face awareness problem what about the learners who depend on the guidance from lecturers. This study was purely targeting the lecturer's awareness; the present study will target the part time mode. This study was also conducted using an online questionnaire, while this study used the face to face questionnaires and the researcher administered and collected the questionnaires by self.

Cagiltay, Koybasi and Islim (2016) in their study done in Turkey titled 'Use of open educational resources: How, Why and why not?' The researchers found out that over 76% were aware of open educational resources and they said that they learn of OERs from the teaching assistants, instructors, flyers, peers and media. Another 23% of the participants were aware of the resources through searching online and surfing the open Courseware (OCW) portal. The respondents were students of general physics in the university regular system. However, the researcher did not establish the relationship that existed between student awareness and utilization.

A study by Paulo, Luisa, and Carlos (2014) in higher institutions in Portugal and found almost inexistent knowledge of OER concept and of their uses. This meant that the 315 students who were sampled majority had no clue of what are OERS. The researchers established that OERs were completely unknown to more than 60 % of the students. For those who have some information on the OERs less than 10 % of them are important to them. The researcher concluded that a lot needed to be done so as to make OERs part of the resources used by students for learning purposely. It was further established that as much as majority of the students indicated they did not know OERs they had indicated to a previous question on the features they value about digital resources a sign that they made use of them without knowing. The researchers wanted to establish the level knowledge

students had on OER platforms. The results indicated that very few respondents out of the 315 knew about specific repositories asked about. Therefore, based on the findings it was concluded that OER issue was still unfamiliar within the teaching and learning context of higher education students as much as they simultaneously valued the features of such resources.

Li, Yuen and Wong (2015) in a study on readiness for open educational resources in Hong Kong established that the tertiary students showed a limited degree of awareness towards OERs. 29.6 % indicated they had no idea about OERs, 33.3% knew of it, 33.3 % knew how to use them. The study further found out that the awareness degree was limited due to the few OER respondents used. Wikipedia, wikibook, you tube EDU, MOOC and courseware were the only sources where the learners accessed OERs from. The respondents had virtually no knowledge of open licences. The study revealed that most of the tertiary students had high computer literacy on using online tools and resources, however, their familiarity and experience in OERs was rather limited.

In related studies Olufunke and Adegun (2014) studied utilization of OERs among undergraduates in Universities in Nigeria. The researchers used a descriptive research design. The findings of the study were that the undergraduates were moderately aware of the existence of OERs. The researchers used qualitative analysis and a scale that ranged from Zero to three. This study used Multi stage and simple random sampling and the sample size was from all the faculties in the universities sampled. This study could have yielded different findings had the researchers used undergraduate students from same faculties and from the same cohorts.

In a study done in UK on student views on learning methods and use of OERs, it was established that 65% of traditional and 66% of non-traditional students indicated either they were slightly aware or strongly aware of OERs as part of their course. Around one-fifth of traditional students (21%) and one-quarter of non-traditional students (25%) said they were strongly aware of OERs. This was an indication that traditional and non- traditional students were aware of the existence of OERs (NUS, 2014).

In a study done in India titled open educational resources in India: a study of attitudes and perceptions of distance teachers in selected Indian distance education institutions. One of the objectives in this study was to establish the extent of awareness regarding OERs. It was established that awareness was considerably high (Venkaiah & Ambedkar 2010). This was done among the distance learners in higher educational institutions and therefore it can be argued that the selected respondents already are prepared to make use of such resources. One of the basic requirements of being a distance learner is to be having basic knowledge on computer skills and packages. Therefore, this study looked at a different population of part time students specifically from private universities.

Other studies done in Sub Saharan Africa targeting non Teacher Education in Sub-Saharan Africa (TESSA) participants, established that there was general lack of awareness. Two academic non TESSA members stated that they have never heard of OERs before as much as they were participating in other open access activities. This was an indication that even the academics lacked awareness and yet they are expected to make use of them and even recommend some for their students. The researchers further interviewed seven librarians from nine non- TESSA group, they also knew very little about OERs (Ngimwa & Wilson 2012). The data collection instruments used were interviews and observations only. It was purely qualitative and therefore arrival at conclusions

and inferences might have not been very accurate. Therefore, the current study was done to address some of the weaknesses noted in data collection and data analysis.

According to UNESCO (2015b), efforts have been made to promote OER in Kenya for a long period of time. However, the adoption is not yet high, yet the need is obvious. Numerous academic institutions have been establishing OERs in the country and the urge to learn more about OERs continue. The number of faculty members and students utilizing OERs continues to grow demonstrating an appreciation and demand for the same. This necessitated this study on relationship between students' characteristics and utilization of OERs for academic work in private universities.

Research Methodology

Research Design
The study used correlational research design. This is a design that is used to describe the strength of linear relation and direction of association between two variables (Gay, Mills & Airasian, 2009). The correlational design aims at determining the relationship between two variables, as well as, how strongly these variables relate to one another (Kelley, Clark, Brown & Sitzia, 2003; Creswell, 2008) and that is what was expected of the study.

Population of the Study
The population for this study was 5,375 part time students from private universities in Kenya (Registrar's office of respective institutions 2014). The accessible population was 2716 third and fourth year Bachelor of Education, part time students. The two cohorts were chosen because they have been in campus long enough hence were assumed to have experience on information access compared to the 1st and 2nd years. This is because they have been in the University education long enough as compared the first and second years.

Table 2
Summary of Percentage of the Students in Each Respective University.

University	Total 3rd and 4th year students	% of the accessible population (2716)	Sample Size
A	504	18.5	65
B	825	30.3	105
C	510	19	66
D	396	14.5	51
E	491	18	63
Total	**2716**	**100**	**349**

Table 2 shows the sample size that was selected from each respective university. A total of 65 (18.5%) were selected from university A, 105 (30.3%) from university B, 66 (19%) from University C, 51 (14.5%) from D and 63 (18 %) from E. That provided a total sample size of 349 par time students pursuing B. Ed programme.

Data Collection Instruments
The data was collected using a Student Questionnaire was of likert type.

Data Analysis
The data collected using the questionnaires were organized, coded and analysed. Quantitative data was summarized using frequencies and percentages. Quantitative data obtained from the closed

ended items in the students' questionnaire were analysed with the aid of SPSS version 20 program. The data was done by combining agree, strongly agree into one and strongly disagree and disagree into one. Regression analysis was used to test the hypotheses

Relationship between Students' Awareness of OERs and their Utilization for Academic Work

The objective of this study was to determine the relationship between students' awareness of OERs and their utilization for academic work in Kenyan private Universities. The researcher began by establishing the level of awareness of students on OERs.

Students' Level of Awareness on OERs Utilization

Awareness was measured using a set of 12 items. The respondents were asked to score a five point likert scale that ranged from strongly agree, agree, neutral, disagree or strongly disagree. The scale consisted of twelve items. The results are presented in Table 3

Table 3

Descriptive Statistics on Students' Awareness on Utilization of Open Educational Resource

	n	SA %	A %	N %	D %	SD %	Mean	SD
I have never heard of the OERs in my academic life.	321	26.8	35.2	5.9	15	17.1	2.61	1.45
I have only heard of e-resources in my academic life and not OERs.	321	37.7	32.4	4.4	15.6	10	2.28	1.37
OERs are to be paid for in order to be utilized.	321	30.8	30.8	14.3	11.8	12.1	2.44	1.35
OERs are resources that use the creative common licenses.	321	8.7	23.7	40.5	19.9	7.2	2.94	1.04
OERs can only be used in the form they are in.	321	11.8	15	38.3	27.7	7.2	3.03	1.09
OERs are as a substitute to buying hard books and manuals/ modules from the bookshops.	321	6.9	16	11.5	34.6	42.1	4	1.17
OERs are very difficult to access	321	25.2	26.8	12.8	16.8	18.4	2.76	1.46
OERs are very easy to access.	321	25.4	32.4	15	16.8	10.6	2.56	1.32
OERs do not assist me in doing my assignments.	321	23.1	23.7	8.4	14	30.8	3.06	1.59
OERs cannot be trusted.	321	19	25.5	12.1	15.9	27.4	3.07	1.51
It is very difficult to find OERs in Specific areas of study.	321	25.9	27.7	11.8	20.2	14.3	2.70	1.41
OERs are only research journal articles.	321	14.3	17.8	9.3	32.7	25.9	3.38	1.41
Average							**2.90**	

The respondents were asked questions in relation to their awareness towards OERs. They were given a range of items that they were to respond on a five point likert scale. A majority of 199 (62 %) agreed that they have never heard of Open Educational Resources. Whereas 103 (32 %) of the respondents disagreed with the statement. To check whether the respondents understood exactly

what OERs are, they were asked to indicate whether OERs are to be utilized when they have been paid for. A majority of 198 (61%) agreed with the statement whereas 77 (24 %) disagreed. This showed that the students do not understand and know exactly how OERs can be accessed and utilized.

The students were also asked a question in relation to the creative common licences that are commonly associated with OERs. A total of 87 (27%) agreed that OERs use creative common licences whereas 104 (32%) disagreed. However, there was a majority of (130) 41% remained neutral on the statement. This can be assumed to mean that they were non decided on the issue thereby lack of information. The researcher wanted to establish whether the respondents understood that OERs are not a substitute to the hard books, manuals and modules of study. A majority of 236 (77%) agreed that OERs are a substitute to having hard books, manuals and modules of study whereas 38 (12 %) disagreed. Respondents were also asked to indicate whether OERs are very easy to access. A majority of respondents 185 (58%) disagreed while 88 (27%) agreed that they are easy to access. This indicated that majority of the respondents are not aware that it is very easy to access OERs. The respondents were asked to respond to whether OERs are only research articles. A majority of 103 (32 %) n agreed to the statement whereas 188 (58.6 %) disagreed. This meant that majority of the respondents knew that OERs are in different forms.

Table 3 indicates awareness in terms of the mean between the different responses given on the likert scale. Majority (62%) of the respondents Agreed with the statement: 'I have never heard of OERs in my academic life' There is a small dispersion from the answers given (*M*=2.605; *S.D*=1.450).This means that the students agreed that they have no information regarding OERs. The respondents were also asked to indicate whether 'OERs are a substitute to buying hard books and manuals/ modules from the bookshops (*M*=4; *SD*=1.163) they disagreed. This means that they understood well that OERs are not substitutes but the just compliment. Generally going by the average of all the means throughout the twelve items it can be concluded that the respondents were moderately aware of the existence of OERs (*M*=2.901; *S.D* 1.347). On the last item the learners were asked whether; 'OERs are only research Journal articles. From the mean rating on Table 3 the level of awareness on OERs was moderate. The level of awareness on whether OERs are a substitute to hard books and manuals was low (*M= 4.0, SD=1.165)*, the level of awareness on whether OERs were to be paid for in order to be utilized was also low *(M=2.439, S.D 1.352)* and whether the respondents had heard of only E resources and not OERs was also low (*M=2.28, S.D=1.366.)*

The findings on awareness on utilization of OERs corroborates with the findings of Panda and Chen (2013). The two scholars established in a study titled needs for and utilization of OERs in distance education in China that lecturers did not have a clear understanding of OERs and the other materials available online. Therefore they questioned the understanding of students since it is assumed that the lecturers are the facilitators. This study reveals that the students face awareness problem from item i on Table 3. The findings from the first objective also are in agreement with those of Olufunke & Adegun (2014).   The findings of the study were that the undergraduates were moderately aware of the existence of OERs. This meant that not all or majority of the students were aware of the Open Educational Resources.

To confirm the level of awareness was moderate item iii from Table 3 shows the respondents indicating that OERs are to be paid for in order to be utilized. Since majority of the respondents responded to the affirmative/agreed with this statement it scores the point that the students are not fully aware on how OERs are got. The respondents also indicated that OERs are a substitute to

books. Majority of respondents also agreed with the statement. This shows lack of information on the role that OERs play in the field of academics. These findings on awareness also corroborated with those that were established in two studies done in UK on OER awareness; Nus (2014) found that traditional and non- traditional students In UK universities were not aware of the existence of OERs. It was also established that the non- traditional students were slightly aware compared to the traditional ones. This is also supported by Mc Greal, Mishra, Sanjaya and Miao (2016) when they pointed out that despite the potential of OER expanding access and improving the quality of education, knowledge concerning effective practices remains scarce.

In a study that was done in India on attitudes and perceptions of distance teachers in selected Indian distance education institutions it was established that awareness was considerably high (Venkaiah & Ambedkar 2010). This might be alluded to the fact that the study was done on students who pursue their studies purely as distance teacher students. Therefore, it can be inferred that learners who decide to do studies through the distance learning mode strive to acquaint themselves with OERs. This is because most of the learning is done through the use of internet and that is why the non-traditional students in NUS (2014) were found to be more aware compared to the traditional students. The findings also differ slightly in terms of awareness from the learners with a study conducted in Tanzania (Haule, 2015). He established that students in higher institutions of learning did not use OERs effectively because they did not know on how to select the best reliable OERs and grade them properly.

The study hypotheses were tested in order to make a decision on whether the independent variables (student characteristics)associated with the study objectives really had a relationship with the dependent variable; utilization of OERs for academic use. Significantly the study also sought to establish the magnitude of the independent variable to the dependent variable at a set significant level of 0.05 %.

This study was guided by three null hypotheses namely: There is no statistically significant relationship between student awareness on OERs and utilization of OERs for academic work in Kenyan private universities, there is no statistically significant relationship between student readiness and Utilization of OERs for academic work in Kenyan private universities and there is no statistically significant relationship between student perceptions and Utilization of OERs for academic work in Kenyan private universities.

To test H_{01} There is no statistically significant relationship between students' awareness on OERs and utilization of OERs for academic work in Kenyan private universities. The relationship between students' awareness on OERs and their utilization was established using simple regression. The index of awareness was then regressed on that of utilization. The findings are as summarized in Table 4, 5 and 6.

Table 4

Model Summary of the Awareness Index

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.373[a]	.139	.137	.33613

 a. Predictors: (Constant), Awareness index

Table 4, R^2 (coefficient of determination) was used to establish the predictive power of the study model which was found to be 0.139 implying that 13.9% of OERs utilization was explained by students level of awareness. Therefore awareness contributes 13.9% variation in the outcome which is utilization (R^2). The remaining 86.1% can be attributed to other factors not investigated in the model. In case another variable is introduced in the model the contribution would be 13% as indicated by the adjusted R squared value. The ratio in the model summary on Table 5 indicates that the overall regression model is acceptable for the data.

Table 5

ANOVA between Utilization and Awareness Indices.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.833	1	5.833	51.631	.000[b]
	Residual	36.041	319	.113		
	Total	41.875	320			

 a. Dependent Variable: Utilization index
b. Predictors: (Constant), Awareness index

Generally ANOVA on Table .5 tells us that the model is a significant predictor. It further shows that awareness is statistically significantly related to the dependent variable (utilization). Finally it shows that the model is significant in predicting utilization (F (1,319)=51.631; p<0.05).

Table 6

Regression coefficients on Utilization and Awareness Indices

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.984	.074		13.245	.000
	Awareness index	.178	.025	.373	7.185	.000

r= .373, R^2 =.139, Adjusted R^2 = .137, (F1,319)= 51.631, p < 0.05

Table 6 shows the unstandardized coefficient intercept (constant) is .984, while the partial regression coefficient for awareness is .178 while the standardized Beta coefficient is .373. From the partial regression, it can be implied that awareness significantly predicts utilization (β= .373; t

(321) =5.833; p<0.05). In other words it implies awareness and utilization are dependent on each other. Consequently it can be concluded that awareness index statistically and significantly predicts utilization. Therefore, the null hypothesis; There is no statistically significant relationship between students awareness on OERs and their utilization for academic work in Kenyan private universities is rejected. Therefore, there is a positive relationship between utilization and awareness index and therefore the relationship is significant. This means that the more students are aware of the OERs the more they will be used (r (321) = 0.373; p <0.05). Therefore, the model used in this study is suitable to make viable decisions. ANOVA shows that the regression line is not Zero. Meaning that the regression line exists and it can be modeled linearly. It can be concluded that therefore there is a positive relationship between utilization of OERs and students awareness.

Conclusion and Recommendations

The researcher concluded that majority of the students were moderately aware of the OERs as shown on Table 5. This is because they were able to respond affirmatively to the statements that were positive. This study reveals that OERs have not been made use of maximally. This is because despite the sensitization that is done by OER Africa on usage of resources still many of the learners can be said to be moderately making use of OERs. This study has affirmed that majority of the learners view OERs as not very useful in their courses of study.

The researcher recommended that policy makers should consider a serious promotion of OERs across the private higher learning institutions. This will make the students to be aware and thereby increase accessibility and thereby utilization of the same. The lecturers should be at the fore front to encourage learners to make use of OERs in doing assignments and research. This can be done through having OERs as core texts on the course outlines or making learners use some of the OERs as case studies. OERs can also be widely used if the lecturers draw students assignments from there and they insist that specific OERs need to be cited.

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