

RELATIONSHIP BETWEEN PERFORMANCE EXPECTANCY AND STUDENT'S UTILIZATION OF OPEN EDUCATIONAL RESOURCES FOR ACADEMIC WORK IN PRIVATE UNIVERSITIES IN KENYA

Osoro, E N¹

Africa Nazarene University

DOI: <https://doi.org/10.5281/zenodo.8328313>

Published Date: 08-September-2023

Abstract: Today, an increasing number of institutions and individuals share open digital resources via the Internet without use of passwords and keys. This has opened up the way learners in higher education access information for academic work. 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. As such, open educational resources may be part of a solution to this problem. However, the utilization of open educational resources (OERs) has not been taken up fully by institutions of higher learning. There are many factors which may have an effect on students' utilization of OERs. The purpose of this study was to determine the relationship between performance expectancy and students utilization of open educational resources for academic work in private universities in Kenya. The study was guided by one objective; to determine the effect of performance expectancy, on students' utilization of open educational resources for academic work. The study used cross sectional research design. It targeted 17 chartered private universities in Kenya. In the private universities there are 14,250 3rd and 4th year undergraduate students. Five (5) private universities were sampled through simple random sampling. They constituted 30.0% of the 17 private chartered universities. Proportionate sampling was used to determine the respondents from each university. Simple random sampling was used to select respondents from the 3rd and 4th year undergraduate students. Data were collected using students' questionnaire (SQUOER) and interview guide for key informants. Content and face validity for SQUOER was checked by two research experts. Reliability was estimated through the use of Cronbach alpha coefficient. The student questionnaire yielded an overall reliability coefficient of 0.92 which was found acceptable for this study. Quantitative data were analyzed using percentages, frequencies, means and regression analysis. Qualitative data were reported in terms of narrations based on the themes under study and they were used to corroborate the quantitative results. The study revealed that performance expectancy had a relationship with utilization of OERs and was significant ($\beta = .369$; $p < 0.05$). This implied that performance expectancy positively affect students utilization of OERs for academic work at $p < .05$. The study recommends that private universities have to maintain proper facilities, infrastructure and working environment for potential users of OERs to utilize them for academic work.

Keywords: Awareness, Utilization, Open educational Resources.

1. INTRODUCTION

Technological advancements like laptops, i-pads, data projectors, smart phones, i-phones, new applications, new soft-wares and connection to the web have become an inevitable part of students' learning experience. The Kenyan education system and specifically the university students have been taking advantage of technology to access open educational resources as

an intervention measure. Open educational resources have been seen as an intervention that will increase access to information, improve quality of education, make learning opportunities more flexible and help cutting down costs of learning resources such as print media. This is because OERs are freely available online for students to use and reuse for learning.

Majority of the studies concerning OERs have mostly been done from the perspectives of lecturers, facilitators, educators and higher institutions of learning. Therefore, there is a growing body of literature on how lecturers use OERs for facilitating classes and lessons with students. However, very little is known concerning the students' acceptability and utilization of OERs for academic work in Kenyan universities and yet the core business of students is academic work. This comes in the wake of Kenya having opened an Open University called the National Open University of Kenya, just like India, Tanzania, Nigeria, Britain, Australia and South Africa.

1.1 Purpose of the Study

The purpose of the study was to determine the relationship between performance expectancy and students utilization of open educational resources for academic work in private universities, Kenya.

1.2 Literature Review

Performance expectancy is the degree to which one believes that by using a given innovation or system it will help in the attainment of the objectives (Venkatesh *et al.*, 2003). In Higher education, there are many innovations that come midway. In this context, open educational resources are an innovation. The students in higher education institutions are expected to make use of the OERs. Students in higher educational institutions will use OERs for academic work if they are aware and sensitized about them. Therefore, sensitization becomes an area that needs to be studied so as to understand how it impacts on utilization of OERs. The following are researches that have been done from different areas on the variable of performance expectancy.

According to a Feldstein, Martin, Hudson, Warren, Hilton and Wiley (2012) study titled 'Open textbooks and increased students access and outcomes in Virginia State University. The researchers surveyed 1393 students who utilized OERs of which a total of 315 students responded in the survey, 95.0 % strongly agreed or agreed that OERs were easy to use and 78.0% felt that OERs provided access to content that is was more to date than was available in the print text books. Two thirds of the students agreed that OERs were more useful in academic work than the traditional textbooks. This meant that they preferred content that was in OERs to the content in traditional textbooks. This is about the expected performance of OERs.

Pitt, Ebrahimi, McAndrew and Coughlan (2013) undertook a study titled "assessing OER impact across organisations and learners in USA: Experiences from the bridge to success project." The study was based on a descriptive survey design. The researchers examined student perceptions of two pieces of OERs that were used to help students improve their performance in mathematics. A total of 126 of the students who used OERs took a survey on their perceptions concerning the resources. A majority (79.0%) of the students indicated that they were satisfied with the quality of OERs they used whereas 17.0% were undecided about their satisfaction. A minority of 4.0 % said they were dissatisfied. This shows that the adoption of OERs was pegged to their propensity to enhance the academic performance of users. In this study two OERs were used to check on students' perceptions. As the results were not subjected to inferential statistics, making inferences was a bit difficult. The current study used inferential statistics and it gathered data from key informants which triangulated the quantitative data.

Perryman and Seal (2016) conducted a survey in India concerning open educational practices and attitudes to openness of educational resources across India. Data were collected using online and printed questionnaires from all over India. The study established that majority of respondents; formal learners and educators had been using OERs for over two years, though 25.0% of respondents had never used OERs. Educators appeared to be using Indian OER sources more than formal learners. Formal learners were using a wider range of OERs than educators extensively. The educational you tube videos were particularly popular for all categories of respondents. The main aim of using these resources was enhancement of performance in examinations as argued by the researchers. This study used online questionnaires and print without the use of a technique that would give in-depth information. The study was much into attitudes of the performance of OERs.

It did use different variables from the UTAUT model. It was more of a descriptive study where the items were semi structure. The current study used the UTAUT model and it tested hypotheses in relation to student's utilization of OERs.

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 was to establish the extent of awareness regarding OERs. It was established that awareness was considerably high (Venkaiah & Ambedkar, 2010). The study was conducted among the distance learners in higher educational institutions and therefore it can be argued that the selected respondents already were prepared to make use of such resources. One of the basic requirements of being a distance learner is to have basic knowledge of computer skills and packages. Therefore, the current study looked at a different population of undergraduate students specifically from private universities. The Indian study also used only a questionnaire as the data collection tool. However, this current study used both a questionnaire and an interview guide for the key informants.

Huang, Jessica, Yan and Ermei (2015) conducted a study among students of Zhejiang University in China regarding the purpose for utilizing OERs. Data were collected using questionnaires and analysed using quantitative methods. Over half (59.8 %) of the students indicated that they used OER to meet their individual learning needs, 39.4 % used OER to learn about other fields of study, 31.1 % used OER to review presentations of internationally renowned scholars, 16.8 % used OER to review presentations from Chinese renowned scholars, 12.4 % used OER for other purposes. It was therefore, clear that a significant number of students used OER to gain learning opportunities that were otherwise unavailable to them, such as listening to presentations of renowned scholars in fields of specialization since this could enhance their performance on learning objectives. Due to the fact that the former study was not focused on Kenya or an African country for that matter, the findings obtained may not relate to this current study. This underlines the importance of this current study.

According to Onaifo (2016) study on investigating the use of open educational resources by students at the university of Lagos Nigeria established that the participants were not aware of OERs in spite of using them for academic work. The researcher investigated key issues in the use of OERs among students at the University of Lagos. The study was guided by five objectives namely, what are the student's attitudes towards OERs, how aware were the students about OERs, what factors motivated the students to use OERs, what kind of challenges they faced in using OERs and what OERs benefit students. The study used mixed methods design and grounded theory whereby data were collected through interviews and questionnaires. The researcher did a survey among 417 respondents and interviews among 20 interviewees. It was established that the respondents face several challenges in using OERs like high cost of internet access. The researcher concluded that the respondents frequently utilized OERs for academic work, however, overall knowledge of the resources was limited. The respondents were limited on the understanding of the concept of OERs and general awareness of their existence. It was further established that they were inadequately informed about the distinguishing characteristics of the resources or their unique attributes. This means that the students would not be in a position to make a choice whether to utilize OERs or not because they did not have information on the resources. Out of a total of 20 interviewees who participated in the study, only 2 of them reported that they were familiar with the term OERs. The study made use of grounded theory and principal component analysis. The current study tried to establish how performance expectancy, effort expectancy, social influence and facilitating condition affect utilization of OERs. It used cross sectional research design and utilized inferential statistics that assisted in drawing inferences.

Haule (2015) carried out a study on "open educational resources utilization in Tanzanian higher learning institutions." The study was based on the desk review of previous work on OER application in various countries. The findings obtained show that educational resources reduce the time instructors take to prepare for lectures. This is because OERs are prepared and customized to meet the needs of other institutions that are ready to share. This is also necessary since different countries have different needs in terms of educational resources. When institutions want to develop new programs it becomes easy because existing OERs provide the information that may be required. This enhances the realization of learning objectives,

According to UNESCO (2015a), efforts have been made to promote OERs in Kenya for a long time. However, the adoption is not yet high, yet the need is obvious. Numerous academic institutions have been establishing OERs in the country and okay the urge to learn more about OERs continues. The number of students utilizing OERs continues to grow a demonstration of appreciation of the resources and demand for the same. The demand necessitated this study on exploring students' utilization of OERs for academic work in private universities.

2. RESEARCH METHODOLOGY

The study used cross sectional research design. This is a design that is used when a researcher wants to contextualize, interpret and understand the respondent’s use of OERs. This design enables a researcher to collect diverse types of data which ultimately provide a comprehensive understanding of the research problem (Cresswell, 2014). The design was suitable for this study because the data that was collected was both qualitative and quantitative. The qualitative data was obtained from the interview guide while the quantitative data was derived from the items of the likert scales. The method was also suitable since it provided for triangulation and corroboration of the findings from the student questionnaire and interview schedule guide.

The population for this study was 60,624 3rd and 4th year undergraduate students from private universities in Kenya (CUE 2014). The undergraduate students were chosen because they are easily accessible and they embrace technology faster. The private universities were chosen because they have heavily invested in ICT infrastructure in relation to student ratio (Herbling, 2012 & Nganga, 2012).

2.1 Population of the study

Participants	Target population
Undergraduate students.	60,624
Librarian in charge of e- Resources	10
ICT Managers	5

A total sample size of 397 undergraduate students was selected as a sample through proportionate sampling technique. The librarians in charge of E- resources and ICT managers were purposively chosen for the study. This is because they were key informants in their areas of work. Kumar (2005) laments that purposive sampling is determined by the judgement of the researcher as to who can provide the best in-depth information to answer the question researched about. For the purpose of this study, data was collected using a student questionnaire and Interview schedule guide. Student questionnaire was selected for use because it was easy to administer, respondents were allowed to read and respond independently, it was anonymous and therefore produced candid answers than the FGDs (Orodho, 2002). Whereas Interview guide helped the researcher collect data and specific information from particular individuals like perceptions and opinions.

3. RESEARCH FINDINGS AND DISCUSSIONS

The objective of this study was to determine the relationship between performance expectancy and students’ utilization of OERs for academic work in private universities in Kenya. The researcher began first by determining the extent of use of OERs for academic work in the private universities. The findings are presented in Table 1.

Table 1: The Ratings of Students on Performance Expectancy in Utilization of OERs for Academic Work

Item	Rating					Cumulative		Total
	1	2	3	4	5	A	D	
1. OERs are useful in education in general	187 51.0%	165 45.0%	6 1.6%	5 1.4%	4 1.0%	352 96.0%	9 2.4%	367 100.0%
2. Using OERs enables me to accomplish academic tasks more quickly	141 38.4%	178 48.5%	35 9.6%	7 1.90%	6 1.6%	319 86.9%	13 3.5%	367 100.0%
3. OERs would improve my performance in academics.	142 38.7%	171 46.6%	35 9.5%	12 3.30%	7 1.9%	313 85.3%	19 5.2%	367 100.0%
4. OERs would increase my productivity in research.	175 47.7%	171 46.6%	18 4.9%	3 0.8%	0 0%	346 94.3%	3 0.8%	367 100.0%
5. OERs are cheaper to access compared to print books.	161 43.9%	119 32.4%	42 11.4%	33 9.0%	12 3.3%	280 76.3%	45 12.3%	367 100.0%
6. Use of OERs increases my learning performance.	109 29.7%	186 50.6%	37 10.1%	30 8.2%	5 1.4%	295 80.3%	35 9.6%	367 100.0%
Mean (<i>M</i>) Performance expectancy of OERs = 2.00								
Standard Deviation (<i>SD</i>)=0.92								

The results indicate that 352 (96.0 %) of the respondents agreed that OERs were useful generally in education. The results imply that majority of students who are the consumers of OERs are aware that OERs are useful for undertaking the academic work in their institutions of learning. The results further revealed that 346 (94.3%) of the students believed that OERs enabled them to increase their productivity in research. While another 313 (85.3%) indicated that they utilize OERs since they know that the resources will enable them to improve their performance in academics. The results imply that the learners have expectations from the use of open educational resources. That is the major reason as to why students use OERs for academic work. These findings corroborate with those of Gaffar, Singh and Thomas (2013) who found that performance expectancy factors like usefulness, increase of productivity, improvements in academics and accomplishments of tasks made students to adopt new innovations in higher education. This can be the case with the current study because OERs are mostly accessed and utilized through the internet with the use of computers. They also confirm the findings of Nassoura (2012) and Akber (2013) in a study done in Saudi Arabia and at Carnegie Mellon University in Qatar (CMUQ) respectively using the early version of the UTAUT model. The researchers established that performance expectancy was a factor that determined students’ utilization of mobile learning despite the fact that more than half of the respondents were not even familiar with mobile learning. The findings are also supported by Hodgkinson-Williams, Arinto, Cartmill and King (2017) who pointed out that OERs are seen as the products that form the cultural systems that have prevailing social, institutional and disciplinary values, norms, conventions, expectations and practices that may encourage or discourage OERs interested users. According to the study, these norms range from user perceptions on the value and quality of an innovation which is OERs for the current study. This implies that students will utilize or adopt OERs depending on value attachment, advantages, uses, likes and disadvantages that they have. The more the limitations of such resources the less they will be made use of and vice versa.

A total of 280 (76.3 %) of the students agreed that OERs are cheaper to access than the print books. This means that the students compare the price of acquiring a particular book with accessing an online one. Ultimately the cost will be different depending on what is calculated as part of the cost. These findings concur with Educause (2010) and Ikahihifo, Spring, Rosecrans and Watson (2017). The two reports point that, as the cost of higher education continues to rise, open educational resources are a possible solution to ease the financial burden student’s face. Open educational resources can be a supplement since they can be printed like textbooks allowing the learners to save on cost. These findings concur with the views of Diener *et al.*, (2017) in their book titled *Open*. The authors point out that textbooks are very expensive to the student, they are rigidly structured, environmentally unfriendly and unnecessarily long in comparison with open books. They further argue that even if the students were to print the open books the cost would be much lower than the traditional texts in the 21st century. As a result they advocate for use of open educational resources inform of open books so as to reduce the cost for students. The finding agrees with Howard (2016) when he says that OERs frees the students from the expenses that are involved in the purchase of textbooks which amounts to saving a lot of money.

A minority of 42 (11.4%) of the respondents were not sure whether OERs were cheap to access compared to print books. Another 37 (10.1%) of students were not sure whether OERs increases their learning performance. There was a tie between those who were not sure whether OERs would help them improve their performance in academics and also to accomplish academic tasks easily at 35 (9.5%) each. This situation can be attributed to lack of awareness and information regarding the performance expectancy or perceived uses of OERs. A study by Paulo, Luisa and Carlos (2014) in Portugal found an almost non-existent knowledge of the OER concept and of OERs. This backs up the cases of the respondents who were not sure of whether OERs could help them in their academic performance or not. In that study more than 60.0 % of the 315 students in higher institutions used in the study indicated neutral on the scale of awareness on OERs. Having discussed the students’ ratings on performance expectancy the study proceeded to explore the relationship between performance expectancy and students’ utilization of OERs for academic work in private universities in Kenya. The summaries are presented on Table 2

Table 2: Model Summary of Performance Expectancy and Utilization of OERs for Academic Work

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.369 ^a	.136	.134	.70591

Predictors: (Constant), Performance expectancy index

Table 2, shows that the coefficient of determination (R^2) was 0.134 implying that 13.4% of OERs utilization was explained by students’ rating of the use of OERs for academic work. Therefore, performance expectancy contributed to 13.4%

variation in students’ utilization of OERs for academic work with 86.6% of the variations remaining unexplained. The remaining 86.6% can be attributed to other unobserved factors. The study went further to check on the significance of the relationship between performance expectancy and students utilization of open educational resources for academic work. A report on the analysis of variance (ANOVA) showing the sums of squares and the degree of freedom associated with each sum was generated. The table provides an *F*-test for the relationship between performance expectancy and students’ utilization of OERs for academic work in private universities in Kenya. The results were as summarized in Table 3.

Table 3: ANOVA between Utilization of OERs and Performance Expectancy Indices

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.620	1	28.620	57.434	.000 ^b
	Residual	181.882	365	.498		
	Total	210.501	367			

Dependent Variable: Utilization index

Predictors: (Constant), Performance expectancy index

The results summarized on Table 3 show that the *F* value ($F_{(1, 365)} = 57.434$) and $p = 0.000$. The results show that the model is significant because $p < 0.05$. It was inferred that performance expectancy had a significant effect on students’ utilization of OERs for academic work in private universities, Kenya. The study then proceeded to examine the simple linear regression analysis coefficients presented in Table 4.

Table 4: Regression Coefficients on Utilization of OERs and Performance Expectancy Indices

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.227	.130		9.429	.000
	Performance Expectancy index	.527	.070	.369	7.579	.000

$R^2 = .136$, Adjusted $R^2 = .134$, ($F_{(1, 365)} = 57.434$; $p < 0.05$).

The study found that the *P* value of performance expectancy in students’ utilization of OERs for academic work was significant because $p < .05$. The finding means that performance expectancy and utilization are dependent on each other. Consequently it can be inferred that performance expectancy index statistically and significantly predicts utilization.

The standardized beta coefficient for performance expectancy was $\beta = .369$. This was interpreted to mean that there is a direct relationship between performance expectancy and students’ utilization of OERs for academic work in private universities in Kenya. An increase in performance expectancy was likely to result to increased utilization of open educational resources for academic work. The finding implies that when performance expectancy increases by one unit, overall utilization increases by .369 units while holding other factors constant. Therefore, the model used in this study is suitable to make viable decisions. The regression line exists and it can be modelled linearly. It can be concluded that there is a positive relationship between students’ utilization of OERs and performance expectancy of OERs.

The standardized beta coefficient for performance expectancy was $\beta = .369$. This was interpreted to mean that there is a direct relationship between performance expectancy and students’ utilization of OERs for academic work in private universities in Kenya. An increase in performance expectancy was likely to result to increased utilization of open educational resources for academic work. The finding implies that when performance expectancy increases by one unit, overall utilization increases by .369 units while holding other factors constant. Therefore, the model used in this study is suitable to make viable decisions. The regression line exists and it can be modelled linearly. It can be concluded that there is a positive relationship between students’ utilization of OERs and performance expectancy of OERs.

Therefore, in answering the research question; how does performance expectancy relate to students’ utilization of OERs for academic work in private Universities in Kenya? The relationship was found to be positive. This implies that the more students have high performance expectancy of OERs the more they will utilize OERs for academic work. It also implies that if the students have a decrease in performance expectancy the less they will utilize OERs for academic work.

The findings for this study concur with Pandhi (2018) who established that performance expectancy positively impacted on teachers; intentions to use OER ($\beta = .342, P < .001$). It meant that teachers felt that by using OERs their course development, teaching and outcome of learners would be better, easier and quicker. It will also help in increasing learners' academic outcomes. In the current study, performance expectancy was also found to be having a positive effect on students' utilization since the students indicated that OERs were useful to them. OERs would enable them to accomplish academic tasks, would increase productivity in research and increase learning performance. These results are in support of Ali et al. (2015) who established that performance expectancy was a significant determinant of behavioral intention to students' use of e-learning. It is therefore believed that students who found the system useful in their learning process were more willing to adopt the e-learning system. In the current study, OERs were accessed and utilized through the internet and therefore the corroboration. The findings concur with Wiley (2017) study in USA which pointed out that majority of students and teachers had reported that OERs were of inferior quality. From the current study it is evident that the students have some form of perception of very high performance of OERs which will ultimately affect utilization positively. This findings conflict those of a study done by Byoung et al. (2015) in Korean Open University. The study had established that perceived use of OERs was not influencing adult learners' use of OERs in academic work. The researchers had used adult learners and the research was done over a long period of time. This was a longitudinal study that tracked same learners over time. This disparity is probably the case since the current study used a cross sectional research design and data were collected at a given point in time. The following section presents results of the second objective of study.

In order to corroborate the result from the quantitative analysis, the study analyzed and discussed the qualitative data related to performance expectancy and students' utilization of OERs for academic use. Data were collected using structured interview guides from fifteen (15) key informants who included (10) e- resource librarians and (5) ICT managers. Data were collected from the respondents on performance expectancy of OERs for academic work.

The respondents were asked whether OERs were useful in education in general. Majority 8 (88.8 %) of the respondents indicated that open educational resources were generally useful in education. Interview with ICT manager in one of the private universities conveyed that OERs were useful to students because they are always up to date. In addition, the lecturers always require students to use internet sources for academic work. A transcript of the interview is presented below:

OERs are useful to our students. The students always use them for academic purposes generally. This is the case because most lecturers always require that students have to use recently published resources to accomplish academic tasks (ICT manager from a private university in Kenya).

According to McGreal *et al.* (2013) students in higher educational institutions find OERs useful because they are in accordance with their needs academically. Zobel (2015) also reports that learners find OERs useful because it can be accessed without purchasing or asking for permission to use for academic purposes.

The respondents were asked whether OERs enabled the students accomplish academic tasks more quickly. A majority 7 (70 %) of the respondents agreed while 3 (30%) disagreed. The results imply that students used OERs because they could take a short period of time to accomplish the academic tasks from their lecturers. One of the e-resource librarians had the following to say:

Students prefer to use OERs for academic use because of different reasons. One of the major reasons is that it enables the students to complete the academic tasks within a short period of time. This is because mostly they use online resources and therefore they can copy and paste easily. This becomes an advantage because students are able to take a short cut from typing word by word. The university has invested a lot in anti-plagiarism software called Turnitin to check some of anomalies. The students also prefer OERs because they are up-to date (from an e-resource librarian from a private university in Kenya).

The interview results point that students use OERs because they can complete class assignments that require typing. The resources are also preferred because they are up-to date. The interview revealed that OERs have the negative side if not used as expected by the students.

The study sought to establish whether OERs helped to improve students' academic performance, majority 9 (90%) of the e-resource librarians agreed that OERs improved the students' performance in academics. These findings were conflicting with those of Kim *et al.* (2015) in a survey study in Korea which established that perceived usefulness had no effect on intention to use OERs. The researcher used multiple regression to establish the effect of perceived usefulness on the intention to use OERs *t*- value was $-.761$ ($p < .001$) and the alternative hypothesis was rejected.

The interview results revealed that students preferred to use OERs because they are perceived to be cheaper compared to purchase of books. Most of the students in higher institutions of learning are expected to purchase textbooks or use the ones available in the libraries. Due to the limited resources students are likely to prefer OERs to textbooks. An ICT manager from one of the contacted private universities said the following:

Students have a feeling that OERs are very cheap to access, however, to be frank it is also costly if we are to calculate all that is involved in accessing and utilizing OERs as compared to the textbooks. One needs to have purchased a personal computer or even a smart phone. Then one needs to go further and acquire internet bundles that help in navigating in the browser to seek for the resources that are relevant. That of course takes time and lots of bundles. Sometimes one might not get the materials needed and thereby it will be a waste of time and money. Therefore, if all these are quantified it is not get a textbook that is direct on given subject from a well-equipped library like ours (an ICT manager from one of the private universities in Kenya).

This implies that the manager knows that OERs are not that cheap. The manager was of the opinion that the students do not know that if the cost of accessing OERs is calculated well, it will be established that they are equally expensive. Therefore, performance expectancy is a factor that determines and affects students' utilization of OERs now that majority of them agreed to the statements on the 5 point Likert type scale.

4. SUMMARY AND CONCLUSION

The study aimed to determine the relationship between performance expectancy and utilization of OERs for academic work. It was found out that performance expectancy ($\beta = .369, p = 0.000$) was directly and significantly related to students utilization of OERs for academic use because $p < 0.05$. The study found that students perceive OERs to be useful to them. OERs enable students to accomplish academic tasks more quickly; OERs improve students' performance in academics, and increase students' productivity in research. This implied that performance expectancy significantly affects utilization. The more the students have high expectations from OERs the more they will utilize OERs for academic work. Therefore, performance expectancy had a statistically significant relationship with students' utilization of OERs. It also implies that if the students have low or negative ideas concerning what OERs do for them, they will not make use of OERs for academic work.

Performance expectancy was a significant predictor of students' utilization of OERs for academic work. Students feel that OERs are generally useful in academic work. They also feel that OERs will help them accomplish their academic tasks more quickly and improve their academic performance.

4.1 Recommendation

To attract more student users to open educational resources, the content developers should improve on the quality of OERs. This will improve on performance expectancy of OERs by students. Developers of OERs need to update the materials regularly so that the resources can fit the students' needs. This is because majority of the students' indicated that OERs were very useful in academic work and would increase their research productivity and academic performance. If the quality is improved then a majority will continue using OERs for academic work especially those that disagreed with the items used on the 5 point Likert scale.

REFERENCES

- [1] Akbar, F. (2013). What affects students' acceptance and use of technology ?A test of UTAUT in the context of a higher-education institution in Qatar retrieved from <https://pdfs.semanticscholar.org/98a9/27e52df194e97732426e55d6366698675052.pdf>
- [2] Ali T, Ra'ed M, Kamla A. B, Ashraf ,B. M., & Mahmoud. M, (2017). Factors influencing students' adoption of e-learning: a structural equation modelling approach. *Journal of International Education in Business*, 10 (2), pp.164-182, Retrieved from <https://doi.org/10.1108/JIEB-09-2016-0032>.
- [3] Byoung, W. K, Won, G. L., Byeong, R. L., & Jin, G. S. (2015). Influencing factors in OER usage of adult learners in Korea Open University. *International Review of Research in Open and Distributed Learning*, 16(2), pp. 233-245.

International Journal of Novel Research in Education and Learning

 Vol. 10, Issue 5, pp: (7-16), Month: September - October 2023, Available at: www.noveltyjournals.com

- [4] Creswell, J. W. (2014). *Research Design: Quantitative, Qualitative and Mixed Method Approaches* (4th ed). London: Sage Publications.
- [5] Diener, E., Diener, C., & Biswas-Diener, R. (2017). Open-source for educational materials making textbooks cheaper and better. In: R.S. Jhangiani., & R. Biswas-Diener. (Eds.) *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. (pp. 209–217). London: Ubiquity Press. <https://doi.org/10.5334/bbc.p>.
- [6] Educause. (2010). Things you should know about open educational resources. Retrieved from educause.edu/eli.
- [7] Feldstein, A., Martin, M., Hudson, A., Warren, K., Hilton, J., & Wiley, D. (2012). Open textbooks and increased student access and outcomes. *European Journal of Open, Distance and E-Learning*.
- [8] Gaffar, K., Singh, L., & Thomas, D. T. (2013). The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. *International Journal of Education and Development Using Information and Communication Technology*, 9(3), 71-85. Retrieved on 7 July 2018 from www.researchgate.net/publication/259479186.
- [9] Haule, M. J. (2015). Open educational resources utilization in Tanzanian higher learning institutions. *Business Educational Journal*, 1(1), 30-41. Retrieved from www.cbe.ac.tz/bej.
- [10] Herbling, D. (2012, November 4). Strathmore leads East Africa universities in ICT ranking. *Business Daily*.
- [11] Hodgkinson-Williams, C., Arinto, P. B., Cartmill, T., & King, T. (2017). Factors influencing open educational practices and OER in the Global South: Meta-synthesis of the ROER4D project. In C. Hodgkinson-Williams, & P.B.Arinto, (Eds.), *Adoption and Impact of OER in the Global South* pp. 27–67. Retrieved from <https://doi.org/10.5281/zenodo.1037088>.
- [12] Howard, M. (2016). A Practitioner's guide to open educational resources: A case Study. In P. Blessinger., & T.J. Bliss. (Eds.) *International Perspectives in Higher Education*. Published by: Open Book. Retrieved from <https://www.jstor.org/stable/j.ctt1sq5v9n.17>.
- [13] Huang, H.W., Jessica, L., Yan, L., & Ermei, H. (2015). Open educational resources (OER) usage and barriers a study from Zhejiang University, China. *Education Tech Research Dev*.doi 10.1007/S11423-015-9398-1 63: 957-974.
- [14] Ikahihifo, T. K., Spring, K. J., Rosecrans, J., & Watson, J. (2017). Assessing the savings from open educational resources on student academic goals. *International Review of Research in Open and Distributed Learning*, 18 (7), 150-165. doi:<http://dx.doi.org/10.19173/irrodl.v18i7.2754>
- [15] Kim, W. B., Lee, G. W., Lee, R. B. & Shon G. J. (2015). Influencing factors in OER usage of adult learners in Korea. *The International Review of Research in Open and Distributed Learning*, 16(2). Retrieved on July 7, 2015 from <http://www.irrodl.org/index.php/irrodl/article/view/2051/3273>
- [16] McGreal, R., Kinuthia, W., & Marshalls, S. (2013). Open educational resources: Innovation research and practice commonwealth of learning and Athabasca University. www.oecd.org/dataoecd/35/7/38654317.pdf.
- [17] Nassoura, A. B. (2012). Student acceptance of mobile learning for higher education. *American Academic and Scholarly Research Journal*. 4, 1-5. Retrieved 29 September 2018 from www.naturalpublishing.com/files/published/57755yw5wpdf
- [18] Onaifo, D. (2016). *Alternate academy: Investigating the use of open educational resources by students at the University of Lagos in Nigeria* (Phd Thesis, University of Western Ontario). Retrieved from <http://ir.lib.uwo.ca/etd/4086>
- [19] Pandhi, N. (2018). Acceptance and usability of OER in Indian higher education: An investigation using UTAUT model. *Open Praxis*, 10 (1), 55–65. doi: <https://doi.org/10.5944/openpraxis.10.1.623>
- [20] Perryman, L. A., & Seal, T. (2016). Open educational practices and attitudes to openness across India. *Journal of Interactive Media in Education*, 1 (15) 1-17. doi: <http://dx.doi.org/10.5334/jime.416>.

International Journal of Novel Research in Education and LearningVol. 10, Issue 5, pp: (7-16), Month: September - October 2023, Available at: www.noveltyjournals.com

- [21] Pitt, R., Ebrahimi, N., McAndrew, P., & Coughlan, T. (2013). Assessing OER impact across organisations and learners: Experiences from the bridge to success project. *Journal of interactive media in Education*, 7 (3). Retrieved on 17th June 2017 from <http://jime.open.ac.uk/article/view/2012-17/501>.
- [22] UNESCO.(2015a). *Incheon Declaration: Education 2030*. Retrieved from <http://en.unesco.org/world-education-forum-2015/incheon-declaration>.
- [23] Venkaiah., V., & Ambedkar. B. R. (2010). Open educational resources in India. A study of attitudes and perceptions of distance teachers.
- [24] Venkatesh, V., Morris, M. G., Hall, M., Davis, G. B., Davis, F. D., & Walton, S. M. (2003). User acceptance of information technology: Toward a unified view 1. *MIS Quarterly*, 27(3), 425–478.
- [25] Wiley, D. (2017). The evolving economics of educational materials and open educational resources: Toward closer alignment with the core values of education. In R. A. Reiser & J. V. Dempsey (Eds.), *Trends and issues in instructional design and technology* (4th ed.). New York, NY: Pearson Education. Retrieved from <https://opencontent.org/blog/archives/4859>.
- [26] Zobel, G. (2015). Why open educational resources (OERs) are important for critical pedagogues. *Hybrid Pedagogy a Digital Journal of Learning Teaching and Technology*, 13(2), Retrieved on 7 July 2015 from <http://www.hybridpedagogy.com/journal/why-open-educational-resources-oers-are-important-for-critical-pedagogues/>