Utilization of Online Past Examination Papers and Academic Performance of Information Technology Students at Jomo Kenyatta University- Eldoret Campus

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Abstract

Purpose: The aim of this study was to determine the influence of utilization of online past examination papers on academic performance of IT students at Jomo Kenyatta University.

Methodology: Descriptive survey research design was used in this study. Respondents were the 105 undergraduate students in Information Technology Department and 2 librarians in Jomo Kenyatta University of Agriculture and Technology-Eldoret Campus. They were sampled using stratified sampling, while Head of library and the library staff in charge of e-resources in JKUAT Eldoret Campus were purposively included in the study. Primary data was collected from students using closed-ended questionnaires, while interview guide was used on librarians. To ensure validity and reliability, pre-testing of research instruments was done on 20 undergraduate students of Mount Kenya university-Eldoret Campus in the department of Information Technology. D Descriptive statistics such as mean, percentage, frequencies and standard deviation, SPSS (version 22) was used in analysing data. Univariate and multiple regression analysis were used to test the hypothesis and overall model respectively. The results were presented using tables and explanations.

Results: There is a positive and significant relationship between online past examination papers and academic performance of IT undergraduate students of Jomo Kenyatta University of Agriculture and Technology - Eldoret Campus. The study had a normal mean of 4.7 and standard deviation of 0.58. The online past examination papers had R estimation of 0.715. The P estimation of constant was significant (.000), consequently R square value was used. The R square estimation of 0.711 inferred that online past assessment papers anticipated 71.1% of the fluctuation in the academic performance. It had a beta of 0.504 at $p<0.012$.

Unique contribution to theory, policy and practice: This study reports positive and significant relationship between online past examination papers and academic performance. The study recommends that more policies be developed so as to enable students to access diverse examinations papers, not only from JKUAT library, but also government examination bodies such as Kenya National Examination Council (KNEC). This will improve university students' research

skills and enhance their academic performance. The study contributes to the theory by acknowledging that an undergraduate student will always weigh various online electronic resources available based on their applicability to the student's academic needs. If they suit their needs, the student will continue to utilize them further but when the needs are not met, the student stops utilizing the online past examination papers.

Keywords: *Online past examination papers, academic performance, Information Technology Students, Jomo Kenyatta University of Technology*

1.0 INTRODUCTION

Academic performance can be defined as achievement of short-term or long-term objectives by a student. In most universities, academic performance is generally recorded through a structure of collective grade point average (GPA) for the awarding time (Srinivas & Venkatkrishnan, 2016). The discussion on academic performance has intrigued numerous researchers. Measurement of performance is a crucial procedure in any institution. It is through measurement of performance that parties with different interests in an association, such as a university, settles on choices upon which it would confer different awards (Hennessy & Lynch, 2017). For instance, the government is enthused about discharging different researching awards to university students that had performed exceptionally in archiving research proposition (Teferra, 2015). This implies that a university whose students are superior performers are at a greater situation to pull in more funds from various sources when contrasted with universities' whose students are not superior performers (Ayub, 2018).

The academic performance of students is determined by the accessibility and utilization of learning resources, such as web electronic resources. The universities have had a commitment of creating graduates fit to solve emerging challenges in their societies. For instance, graduates delivering top notch profile and ability in their individual occupations (Daramola, 2016). Students doing different degrees in a university expect information to satisfy their academic needs to support and improve their scholarly interest all through their stages of learning (Quadri & Quadri, 2015). University libraries have a duty to guarantee that there are sufficient and up-to-date information resources in soft-copy and printed versions (Daramola, 2016). Printed resources include printed books, magazines, papers and printed journals (Daramola, 2016). Soft-copy resources include e-books, databases and library repositories (Mawere & Sai, 2018). Printed and soft-copy resources enable students to achieve their course work and examination goals. Online past examination papers are the previous assessment question papers which have been digitized in a read only electronic setup and afterward transferred into the system (Mawere & Sai, 2018). They are therefore accessed through the university website for broad access by searching either the title or the code of the paper. Once it is retrieved and displayed on the screen, it is usually read online or downloaded for later use when off line. Online past examination papers have the advantage of being accessible from one's convenient location, and the same paper can provide for multi-use by several online users at a given time, hence very appropriate to students (Daramola, 2016).

1.1 Statement of the problem

Kenyan universities have had structures which guarantee that students are taught appropriately and get access to information resources necessary for their academic success. Notably, Commission for University Education (CUE) requires University Libraries to give quality and sufficient information resources (Commission for University Education (CUE), 2018). It outlines guidelines for guaranteeing strong innovative foundation for supporting the arrangement of online resources (CUE, 2018) Additionally, CUE requires a University Library to set up institutional repository (CUE, 2018). Kenya Library and Information Services Consortium (KLISC) encourages access to these e-resources in Kenyan University Libraries. As such, university students are in this way expected to use these online information resources so as to exceed expectations in their academic endeavors, abilities and skills required in job market (Ayub, 2018).

Regardless of these guidelines by CUE and KLISC, there is dismal performance in semester assessments among students (Okello-Obura & Magara 2018). Mbarara University of Science and Technology (MUST) Library Annual Report (2016) indicated that low utilization of information resources explains low scholarly performance among universities' information technology students. For example, inadequate e-resources especially past papers; lack of correlation between talent and achievement; poor student's study habits; imperfect teaching methods; and negative perceptions on adapting to e-resources have been acknowledged as to the reason why there have been low performance in relation to utilization of e-resources in Kenyan universities (Gakibayo, Ikoja-Odongo & Okello-Obura, 2013).

Students seek other interests from the internet instead of using it to better their academic performance. Jones et al. (2011) observes that appropriate usage of existing examination on learning resources improves student's achievements and scholarly performance (Jones, Ross, Lynam, Perez, & Leitch, 2011). However, the 2018 JKUAT academic report indicated that high number of students made solicitations for postponement of their semester assessments while others wanted to sit for special assessments due to incompetence. The issue was ascribed to numerous elements among them being the low use of online resources, insufficient online past examination papers, poor access and limited refresher training by librarians amongst other issues (Tlakula & Fombad, 2017).

1.2 Purpose of the study

To determine the influence of utilization of online past examination papers on academic performance of IT undergraduate students of Jomo Kenyatta University of Agriculture and Technology, Eldoret Campus.

1.3 Hypothesis

H0: The utilization of online past examination papers has no significant relationship with academic performance of the undergraduate Information Technology students of Jomo Kenyatta University.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Expectation Confirmation Theory (ECT)

This study is anchored on the Expectation Confirmation Theory (ECT) developed in the year 2001 by Bhattacherjee. The theory states that expectations, alongside perceived performance results in post-purchase satisfaction. This outcome is intermediated via positive or negative confirmation of expectations by performance. ECT originated from the marketing field and it is widely used in consumer behavior literature to study consumer satisfaction, post-purchase behavior and service marketing in general (Salubi & Nekhwevha, 2018). The expectation confirmation theory is made up of five constructs: expectation, performance, confirmation, and satisfaction and repurchase intention. If a product/service meets expectation (positive confirmation), post-purchase gratification will take form. On the contrary, if a product/service fails to meet expectations (negative confirmation), consumers' dissatisfaction is probable. In this study, undergraduate students' expectation represented what their prospects are about the library and library information resources. A library user will form preconceived perceptions about library information resources before usage as shown in Figure 1.
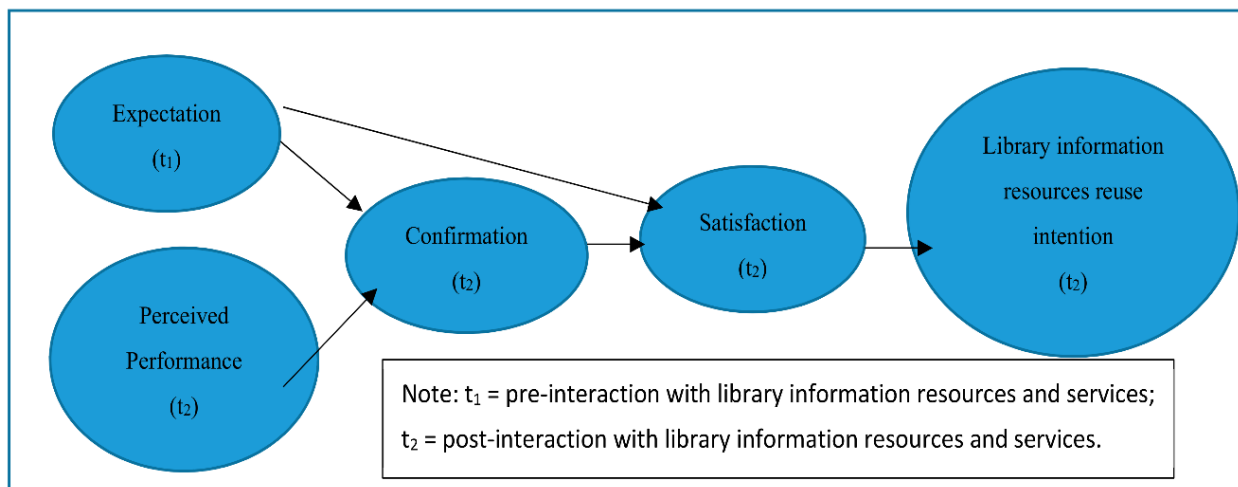
Figure: 1. Model on expectation confirmation theory

Source: Kim, Bae and Jeon (2019)

According to ECT, perceptions based on the performance of a product are directly prejudiced by pre-use expectations, and consequently directly impact confirmation or otherwise of opinions and post-use satisfaction of library information resources. The relevance is that; first after using a particular online information resource for a period of time the undergraduate students form a conception of perceived usefulness. Second, the students determine to what extent their perception of usefulness about that information resource has been confirmed. If the student finds that the product/service is as useful as he/she perceived, he/she forms a notion of satisfaction. Then the satisfied students intend to continue with the usage of information resources whereas the dissatisfied users intend to stop the service. An undergraduate student will always weigh various

online electronic resources available based on their applicability to the student's academic needs. If they suit their needs, the student will continue to utilize them further but when the needs are not met, the student stops utilizing the online past examination papers.

2.2 Empirical Literature

The improvement in ICT is changing people's attitude towards the gathering of current information resources that meet their information needs. In this regard, university libraries have had strong grouping progression of e-past evaluation papers in print and non-print type to meet data requirements of both local and distant clients of libraries (Olofinsawe & Oyeniyi, 2010). The library has a commitment to ensure that adequate e-past evaluation papers are given to users to help them complete their course work. Consequently, this will promote positive attitude towards the use of library online resources among the students. Shukla and Mishra (2011) observes that investigation researchers prefer to use e-past evaluation papers to print papers, and that e-papers are used by a significant part percentage of university students. This finding was validated by Okiki and Asiru (2011) who saw that students utilize e-past evaluation papers 'month to month' and 'occasionally.' Thus, the choice of e-past papers appraisal was clearly developing a positive influence on the level of care for clients, and by extension the level of library-use satisfaction by university students. School libraries give progressively restricted-time activities to improve access and usage of e-past papers appraisal in order to grow the use of online resources.

The information permitted clients to pick information from various sources to satisfy their information needs. A study by Majid and Tan (2002) reported that undergraduate students considered print resources in the library more important for their assessment needs than electronic resources. This renounced an assessment by Kumbar and Lohar (2005) that revealed that majority of university students with remarkable academic performance utilize online resources, including e-past papers which were gotten normally. It was noted that when clients had enough data on explicit information resource, their passageway to such information resource expanded. Thus, ground library was required to take advantage of e-past evaluation papers with the goal of promoting students' use of the library resources. However, this observation did not clearly give strong inspirations to the inconsistency supporting use of e-resources by clients. This study filled in this information gap as explanation behind advancement with everything taken into account information game plans by libraries.

2.3 Research Gaps

Literature reviewed on online past examination papers indicated that there were problems such as insufficient e-exam papers, poor access, limited refresher training by librarians on how students can access the papers (Lan, 2018; Olofinsawe & Oyeniyi, 2010). Shukla and Mishra (2011) saw that exploration researchers prefer to utilize online past examination papers to print papers and that they are utilized much of the time on day by day or week after week premise.

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3.0 METHODOLOGY

Descriptive survey research design was used in the study. Respondents were the 105 undergraduate students in information technology department and 2 librarians in Jomo Kenyata University of Agriculture and Technology - Eldoret Campus. A sample of 105 students and 2 librarians were considered in this study. Primary data was collected using closed-ended questionnaires from students while interview guide was used on librarians. Students were sampled using stratified sampling, while Head of library and library staff in charge of e-resources in JKUAT Eldoret Campus were purposively included in the study. To ensure validity and reliability, pre-testing of research instruments was done on 20 undergraduate students in information technology departments from Mount Kenya university-Eldoret campus. SPSS (version 22) was used in analysing data. Univariate and multiple regression analysis were used to test the hypothesis and overall model respectively. The results were presented using tables and explanations of descriptive statistics such as mean, percentage, frequencies and standard deviation.

4.0 FINDINGS AND PRESENTATIONS

4.1 Reliability statistics

The study carried out reliability statistics by establishing Cronbach's alpha status of the research instruments used in the study. The results showed that the research instruments used on various respondents had an average Cronbach's coefficient of 0.857 which indicated that the instruments were reliable to be used in the study.

4.2 Response rate

The researcher issued 105 questionnaires to undergraduate IT students and conduct interviews to both Head of Library and library staff in charge of e-resource at JKUAT. The answered questionnaires were 84, and both interviews were conducted to satisfaction.

4.3 Background Information

The respondent's background information which was inquired on the research instruments, was analyzed. The order followed in the analysis began with student's information and later both the Head of Library and library staff in charge of e-resources. Table 1 indicates what results were gotten.

Table 1: Background Information of Respondents

Gender	Frequency	Percent	Cumulative Percent
Male	58	69	69
Female	26	31	100
Total	**84**	**100**	
Academic year	**Frequency**	**Percent**	**Cumulative Percent**
First year	34	40	40
Second year	26	31	71
Third year	15	18	89
Fourth year	9	11	100
Total	**84**	**100.0**	
How long have you been a librarian	**Frequency**	**Percent**	**Cumulative Percent**
Below 1 year	0	0	0
2-5 years	0	0	0
6-9 years	1	100	100
10 years and above	0	0	100
Total	**1**	**100**	
How long have you been the head of the library	**Frequency**	**Percent**	**Cumulative Percent**
Below 1 year	0	0	0
2-5 years	1	100	100
6-9 years	0	0	0
10 years and above	0	0	100
Total	**1**	**100**	

Source: Researcher

The students that responded to the questionnaires were mainly male 58 (69%) and the rest 26(31%) were female students. In addition, the male students were found to utilize online resources more than the female students. In terms of their years of study, first year students who were the majority were 34(40%); while fourth year students were only 9(11%). Since there were just two library staffs, their participation in the interview resulted to 100% response. The library staff in charge of e-resources in JKUAT indicated that she had stayed in the current position for a period between 6-9 years. The head of library indicated that the duration of stay in their current position was between 2-5years.

4.4 Descriptive Analysis of Online Past Examination Paper

The main purpose of the study was to determine the influence of utilization of online past examination papers on academic performance of IT students at JKUAT. There were statements that the respondents were supposed to (1-Strongly disagree, 2-disagree, 3- Neither agree nor disagree, 4- Agree, 5- Strongly agree). Table 2 indicates the results.

Table 2: Descriptive Analysis of Online Past Examination Papers

Statements N=84	1	2	3	4	5	Mean	Std Dev
Availability of school online based past examination papers have enabled a student revise better for their examinations	0(0%)	0(0%)	0(0%)	28(33.3%)	56(66.7%)	4.67	.474
Students get group discussion content by accessing problem-based electronic papers	1(1.2%)	1(1.2%)	0(0%)	27(32.1%)	55(65.5%)	4.60	.679
Students have developed their answering techniques of exams after they learnt how various essay online papers were being answered.	0(0%)	0(0%)	0(0%)	20(23.8%)	64(76.2%)	4.76	.428
The imagination level of students has been expanded resulting to high course completion rates after they listened to various audio online examinations.	1(1.2%)	1(1.2%)	0(0%)	15(17.9%)	67(79.8%)	4.74	.642
Previous online essays have enabled students pass well in their continuous assessment test due to various sharpened skills of interpreting the questions.	1(1.2%)	1(1.2%)	0(0%)	23(27.4%)	59(70.2%)	4.64	.670
Confidence level of the students have been improved during examinations due to adequate revision of various online past papers	1(1.2%)	1(1.2%)	0(0%)	8(9.5%)	74(88.1%)	4.82	.604
Average Mean						**4.7**	**0.58**

Source: Researcher

Table 2 demonstrated that online past assessments paper's statements had a normal mean of 4.7 and standard deviation of 0.58. With regard to the standard deviation, it indicated that the reactions were nearest to the mean value in this study. The respondents concurred that their certainty level had been improved during assessments because of sufficient revision of different online past papers at a mean of 4.84. Additionally, they disagreed that students get group discussion content by getting to issue-based electronic papers at a mean of 4.60. This showed the substance quality in online past assessment papers was low. Studies done before by Cerratani, Bernaras & Bully (2016) concurred that students in universities have been using ICT to access past assessments in preparation for their end of semester examinations. This indicated the substance quality in past assessment papers was high. It was noted when students do this, they were mentally steady to finish their courses.

The research sought to find out the kinds of past papers that were accessible in the library database. The interviewee identified semester assessment papers and workshop procedures. Lan (2018) gave

comparative insights that there were high e-test papers downloads in scholastic foundations in China. Mawere and Sai (2018), while examining utilization of e-resources in Great Zimbabwe University, notes that university databases keep both past tests and examination course procedures for any future reference. The study sought to establish the normal download pace of online past assessment papers. The library staff said that there was a normal download rate of 700 papers for each semester. In spite of not giving the specific figure, Mittal and Bala (2013) showed that e-past assessment papers were one of the most used e-resource items on university databases. The researcher asked the challenges librarians confronted when offering administrations on online past assessment papers. These challenges were identified as missing papers, low internet, and power interference. In Tanzania, Mosha and Bea (2014) noted irregularities in e-resources as one of the barricades of using web resources in higher learning foundations, for example, Mzumbe College. They clarified that when students fail to get specific e-resources that they are searching for, it restrains their inquiry enthusiasm.

The investigation conducted an interview with head of library at JKUAT Eldoret Campus. The research sought to establish measures taken to guarantee that data transfer capacity of the library serves JKUAT Eldoret library students better when contrasted with different libraries. The Head of library expressed that there are two unique servers and one is committed to serve the physical library, and the other is online which can be remotely. Wi-Fi was confined to the sixth floor where the library was found and for one to get to it, they have to use a password. A previous report by Nwagwu, Adekannbi and Bello (2009) had an alternate view as relating to how prepared University of Ibadan, Nigeria was. Nwagwu et al. (2009) pointed out that the university had a server for each school in the college and free web was accessible inside the foundation. Taking everything into account, it has been noticed that online past papers have supported student's confidence and empowered them to be knowledgeable. However, poor computer availability has become a hindrance to students seeking e- past assessment papers.

4.5 Academic performance of IT students

There was need to know whether academic performance improved when undergraduate students were trained on utilization of e-resources. Students were required to show their average improvement such as 1-distinction; 2-credit; 3 -pass and 4-fail by ticking in the questionnaires. The results were indicated in Table 3.

Table 3: Descriptive Statistics on Average Improvement

Statements N=84	1	2	3	4	Mean	Std Dev
Average semester grade in the semester that followed after the training on utilization of online electronic resources?	52(61.9%)	32(38.1%)	0(0%)	0(0%)	1.38	.489

Source: Researcher

Tables 3 showed that a lot of IT students' average performance was distinction and pass respectively. They had a mean of 1.38 and a standard deviation of .489. This demonstrated that performance of students had incredibly improved because of accessibility of e-resources such as online past examination papers in JKUAT Eldoret Campus. Studies done elsewhere concurred with the above findings. For example, Manjack et al. (2019) noted that undergraduate student's performance in Nigeria, Gombe State was enhanced because of improved utilization of electronic resources. It would thus be presumed that appropriate utilization of e-resource had a positive effect towards improving semester results. Hence, the university management should guarantee that the performance remains consistent by continually availing e-resources to university undergraduate students.

4.6 Hypothesis Testing

In determining the influence of utilization of online past examination papers on academic performance of IT students at JKUAT, the study measured hypothesis. The hypothesis indicated that the utilization of online past examination papers had no relationship with academic performance of the undergraduate Information Technology students at JKUAT. Table 4.6 indicated that e-books had an R value of 0.715.

Table 4: Model Summary of Online Past Examination Papers

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Online past examination papers	.715[a]	.711	.705	2.443

b. Predictors: (Constant), online past examinations papers
Source: Researcher

The P value of constant is significant (0.000), hence R square value was used. The R square value of 0.711 implied that e-books predicted 71.1% of the variability in the academic performance.

4.7 Analysis of Variance for linear relationship of online past examination papers and academic performance

In the relationship between online past examination papers and academic performance, the study found out that online past examination papers were statistically significant and could be used to predict academic performance. The ANOVA had a significant p-value of 0.000 which was lower than 0.05 significance level. This was also supported by the large f- value of 85.662 far from 1.0 which meant that the variation among group means was more than one could expect to see often. Therefore, null hypothesis was rejected since online past examination papers were key factors of academic performance. Tadesse et al. (2018) agrees that students that were occupied with getting to e-appraisal papers, had the option to create and their assessments results got approval more than the individuals who didn't. The outcomes are demonstrated in Table 5.

Table 5: ANOVA for Online Past Examination Papers and Academic Performance

Online past examination papers		Sum of Squares	Df	Mean Square	F	Sig.
Model	Regression	711.424	1	711.42	85.662	.000b
	Residual	489.564	83	5.97		
	Total	1000.988	84			

a. Dependent Variable: Academic performance

b. Predictors: (Constant), online past examinations papers

4.8 Regression coefficients for Online Past Examination Papers and Academic Performance

The study analyzed regression coefficients for online past examination papers and academic performance. Table 6 gave the findings generated.

Table 6: Regression Coefficients for Online Past Examination Papers and Academic Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	Beta		
(Constant)	13.47	1.013		13.302	0.000
Online past examination papers	0.523	0.057	0.715	9.255	0.000

a. Dependent Variable: Academic performance

Source: Researcher

The findings from Table 6 explained that at constant value of 13.470 which was insignificant at $p<0.000$, online past examination papers had a beta value of 0.523 at $p<0.000$. The investigation finding on Beta value 0.523 suggested that an increase of one unit of online examination papers increases academic performance by 0.523. This implied that in multiple regression analysis, online past examinations papers significantly affected academic performance. In Zimbabwe, Mawere and Sai (2018) affirmed that electronic past assessment papers had assumed a noteworthy job towards improving scholarly performance in Great Zimbabwe.

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussions

In measuring the impact of use of online past assessment papers on academic performance of IT undergraduate students of JKUAT, Eldoret Campus, the study had a normal mean of 4.7 and standard deviation of 0.58. The hypothesis showed that the use of online past assessment papers had no relationship with academic performance of the undergraduate IT students at JKUAT. Table 6 demonstrated that online past assessment papers had R estimation of 0.715. The P estimation of constant was significant (.000), consequently R square value was used. The R square estimation of 0.711 inferred that online past assessment papers anticipated 71.1% of the fluctuation in the academic performance. It had a beta of 0.504 at $p<0.012$. The interview responses demonstrated that the normal download rate was 700 online assessment papers for every semester. To have

continued services at the library, there are two distinct servers, with one devoted to serve the physical library, and the other meant for online services which can be offered remotely. Challenges facing utilization of online past assessment papers included missing papers, web and electricity interferences. There was a positive and significant relationship between online past assessment papers and academic performance. This was so because at constant value of 13.470, online past examination papers had a subsequent beta value of 0.523 at $p<0.000$. That is to imply that when university students got to online past assessment papers, they had the option to build up their certainty while doing their tests, hence, improved performance.

5.2 Conclusion

There was a positive relationship between online past examination papers and academic performance. The study established that when undergraduate students in Jomo Kenyatta University- Eldoret campus accessed online past examination papers, they were able to develop their confidence when doing their exams, resulting in improved performance. However, the respondents also disagreed that students get group discussion content by accessing problem-based electronic papers. This clearly indicated that the content quality in online past examination papers was low.

5.3 Recommendations of The Study

i. The study recommends that more avenues be created where students can get assorted assessments papers from, thereby avoiding overreliance on JKUAT online library alone. These avenues can be government assessment bodies like Kenya National Examination Council (KNEC). This would enable undergraduate IT students improve their revision abilities since they will have the option of exploring many examinable areas.

ii. The findings of this study show that despite rigorous effort by university to give e-resources, there is low utilization. As indicated by the data collected, the major cause for this is nonattendance, lack of comprehension and lack of education of the pleasantries in the midst of undergraduates. Therefore, universities should carry out sensitization campaigns on the availability and usage of e-resources.

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