



The Perception Of The Influence Of ICT Integration On Quality Of Students' Records Management In Kenyan Universities

Rhoda Karimi Gitonga

School of Business and Public Management, Department of Information Technology
KCA University, Nairobi

Mwangi Ndirangu

Department of curriculum, Instruction & Educational Management
Egerton University, Egerton

Jason M. Githeko

Computer Science Department, Egerton University, Egerton

Abstract:

Most Kenyan universities have invested heavily in ICT. Universities are buying computers, increasing bandwidth and connectivity, while at the same time enhancing their other infrastructure to harness the potential benefits of this technology. ICT is known to bring about a number of efficiencies in records management. However, little is known regarding how this investment is benefiting the university community in Kenya. The purpose of this paper is to report findings of a study carried out to determine the Perception of the Influence of ICT Integration on Quality of Students' Records Management in Kenyan Universities. The study investigated the perceptions of students on how the availability of ICT in their universities for students' records management had influenced their ability to access their records. On the other hand, the study investigated how ICT integration in students' records management was influencing the quality of students' records management from the perception of lecturers. The research design used was the descriptive survey. The target population comprised of all the students and lecturers in the public and private universities in the Nairobi metropolitan totaling to 80,707 students and 4,377 lecturers. Purposive sampling was used to select three public and three private universities. Stratified random sampling was used to select 386 students and 344 lecturers. Data was analyzed using descriptive statistics. The findings indicated that the majority of students and staff perceived ICT integration in students' records management as impacting positively on the quality of management of students' records.

Key words: ICT; ICT integration; Students' records management

1.Introduction

The benefits accruing from a well established student records management system are many. The staff can access exactly what they need and when they need it. This can make them far more effective in playing/ performing their roles. Lecturers can be better organized and this can give them more time to be with the students. Administrative staff can have immediate access to students' information. They can see at a glance the academic records of a student and provide an informed opinion with regard to the students' progress. Essential data can be available in an easily accessible form (Femea & Abdur-Rahman, 1999). Records management systems also provides rapid access to records, and ensures the integrity of the records and the security of record-keeping processes (Analysis of Costs and Benefits for ERM/ERK Projects, 2010). This in turn increases positive customer perception in service provision. Records management improves the ability to plan and make informed decisions, which in turn increases accuracy, leads to greater productivity and more motivated staff. The purpose of this study was to investigate the perception of the influence of ICT integration on quality of students' records management in Kenyan universities.

1.2.Objective Of The Study

The following was the research objective:

To establish the perceived influence of ICT integration on quality of students' records management.

1.3.Research Question

The following research question guided this study:

How is ICT integration perceived to influence quality of students' records management?

1.4.Location Of The Study

The study was carried out among students and lecturers in the Nairobi metropolitan. This region had the highest number of both public and private universities.

1.5.Methodology

Purposive sampling was used to select the universities from which the sample was drawn. The main objective in this type of sampling was to pick cases that were typical of the population being studied. The researcher's judgment was used to select the

respondents who best met the purposes of the study. The three public universities were selected because they were the only public universities with their main campuses within Nairobi metropolitan. The three private universities were selected because they were among the most established among all the private universities. Stratified random sampling was then used to select the two categories of respondents namely students and lecturers. The sample size was calculated using the formulae from Mugenda and Mugenda (1999), where the minimum sample size can be evaluated as follows:

$$n = \frac{Z^2 pq}{d^2}$$

Where:

n= the minimum sample size if the target population is greater than 10,000

Z= the standard normal deviate at the required confidence level.

p = the proportion in the target population estimated to have characteristics being measured. Use 0.5 if unknown.

q = 1-p

d= the margin of error.

If the target population is less than 10,000 then the minimum sample size is obtained using the formula:

$$n_s = \frac{n}{1 + \frac{n}{N}}$$

Where:

n_s= the minimum sample if the target sample size is less than 10,000

n = the minimum sample size if the target population is greater than 10,000

N = the estimate of the population size.

Once the required sample size was determined, proportion allocation was used to obtain the number of students and lecturers that were included in the sample from each of the selected universities. Simple random sampling was then used to distribute the questionnaire equally to all the sample recipients. The sample size was calculated using the formulas above with Z=1.96, p=q=0.5 and d = 0.05 to obtain a sample of 386 students and 344 lecturers. However, 231 students' questionnaires and 219 lecturer's

questionnaire were collected for analysis. According to Kathuri and Pals (1993), it is generally recommended that minimal sample size should be 100 for each major subgroup and 20 – 50 for minor sub group in a survey research. Therefore the sample size used was appropriate for analysis.

2. Results And Discussion

The objective of the study investigated how integration of ICT in Students' Records Management was perceived to influence quality of students' records management. To achieve the objective of the study, responses were captured at two levels as follows:

- Perception of the Influence of ICT integration on quality of Students' Records Management from the students' perspective.
- Perception of the Influence of ICT integration on quality of Students' Records Management from the lecturers' perspective.

2.1. Perception Of The Influence Of ICT Integration On Quality Of Students' Records Management From Students' Perspective

Students were asked to give their views on how the availability of ICT in their universities for students' records management had influenced their ability to access their records. Their responses were indicated as shown on Table 1

Perception of the Influence of ICT integration in students' records management	Responses (%)			
	N	Agree	Neutral	Disagree
• Easily keep track of my grades	226	80	5.8	14.2
• Keep track of my fees at any moment	228	86	3.9	10.1
• Easily register for new semester units	228	75	7.0	18
• Get an accurate exam result's transcript	225	60	16	24

Table 1: Students' Perceptions on the Influence of ICT Integration on Quality of Students' Records Management

Source: Field data

Table 1 shows that students were able to use the ICT resources available to track their records easily, such as grades (80%), fees status (86%), transcripts (60.%) and registration for new semester units (75.%). Alruchevan (2012) argues that even if ICT

had not revolutionized the classroom yet, it was changing the learning experience of students by providing easier access to information. Balasubramanian et al., (2009) and UNESCO (2009) point out that for the students, use of ICT has resulted into increased flexibility in registering for classes, accessing course-outlines and online content. From the open ended part of this question, students pointed out that they were able to register for new semester units while they were away from their universities. The fact that students were able to use ICT to access their records away from their universities showed that ICT had an element of convenience.

A quality of students' records management index based on the perceptions of students was computed and a mean index for 228 items was 2.57 ± 0.60 . The quality of students' records management index was computed by first assigning value 1 for disagree response, 2 for neutral and value 3 for agree response. The scores for each individual respondent were summed up and divided by 4 to get individual mean. Four (4) were the total number of items under students' perceptions on the influence of ICT integration on quality of students' records management. To get the mean score for 228 respondents, the sum of individual index for use was divided by 228. The range of scores was 1 to 3. Therefore, a mean score of 2.57 indicated that students perceived that ICT integration was influencing quality of students' records management.

2.2. Perception Of The Influence Of ICT Integration On Quality Of Students' Records Management From The Lecturers' Perspective

The second aspect of this objective investigated how ICT integration in students' records management was influencing the quality of students' records management from the perceptions of the lecturers. Their responses were as presented in Table 2

Perception of the Influence of ICT Integration on Students' Records Management	N	Responses (%)		
		Agree	Neutral	Disagree
Easy recording of students' assignments	195	81.6	5.8	6.6
Process examination grades with speed	194	83.5	3.9	8.2
Easy entry of students' attendance	196	79.6	7.0	10.2

Table 2: Lecturers Perceptions on the Influence of ICT Integration on Quality of Students' Records Management

Source: Field data

From Table 2, it was clear that ICT use in students' records management was transforming management of students' records. Judging by the responses, use of ICT in records management enabled lecturers to easily record students' assignments (81.6%), process examination grades with speed (83.5%) and easily record students' attendance (79.6%). This is in agreement with Boggs (2010) observation that electronic management systems make it easy to track, update and manage learners records. Balasubramanian et al., (2009) and UNESCO (2009) point out that ICT can aid in processing voluminous records quickly, produce reliable and consistent records as well as make it easy to search and produce records quickly. The same authors argue that ICT can monitor students' progress and maintain an account of students' performance and results. In a study on internet based database management systems for project control, Li, Moselhi and Alkass, (2006) pointed out that an internet based database management system can provide a real-time data sharing environment and accordingly support the generation of timely progress reports.

A quality of students' records management index based on the perceptions of lecturers was computed and a mean index for 198 items was 2.63 ± 0.52 . The quality of students' records management index was computed by first assigning value 1 for disagree response, 2 for neutral and value 3 for agree response. The scores for each individual respondent were summed up and divided by 3 to get individual mean. Three (3) were the total number of items under lecturers' perceptions on the influence of ICT integration on quality of students' records management. To get the mean score for 198 respondents, the sum of individual index for use was divided by 198. The range of scores was 1 to 3. Therefore, a mean score of 2.63 indicated that lecturers perceived that ICT integration was influencing quality of students' records management.

3. Conclusion

This research set out to establish the perception of the influence of ICT integration on quality of students' records management in Kenyan Universities. The data obtained indicates that the majority of students and staff perceived ICT integration in students' records management as impacting positively on the quality of management of students' records within their institutions.

4.Reference

1. Arulchelvan S. (2012). The effectiveness of E-LMS on performance of Indian rural schools: A case from a developing country, *Contemporary Educational Technology*, 3(1), 1-16.
2. Balasubramanian, K., Clarke-Okah, W., Daniel, J., Ferreira, F., Kanwar, A., Kwan, A., Lesperance, J., Mallet, J., Umar A. & West, P. (2009). ICTs for Higher Education, Background paper from the Commonwealth of Learning UNESCO World Conference on Higher Education, Paris.
3. Femea, P., & Abdur-Rahman, V. (1999). The development and utilization of a computerized student data base. *ABNF*: 10(2):47-49.
4. Kathuri, N. J., and Pals, D. A., (1993). *Introduction to Educational Research*. Egerton University: Education Media Centre.
5. Li, Ji., Moselhi O., Alkass, S. (2006). Internet-based database management system for project control, *Engineering, Construction and Architectural Management*, 13 (3), 242 – 253
6. Mugenda, M. O., and Mugenda, G. A. (1999). *Research methods: Quantitative and qualitative approaches*. Nairobi: ACTS press.
7. National Archives and Records Administration. (2010). Analysis of costs and benefits. The U.S. national archives and records administration. Retrieved January 10, 2012, from <http://www.archives.gov/records-mgmt/policy/costs-and-benefits-erm-erk.html>.
8. UNESCO. (2009). ICTs for Higher Education; Background paper from the Commonwealth of Learning UNESCO World Conference on Higher Education Paris.