

# Journal of **Public Relations** (JPR)

**Influence of Integrated Information Communication Technology on  
Public Education Institution**



**CARI  
Journals**

## **Influence of Integrated Information Communication Technology on Public Education Institution**

Janet Kibera

Department of International Relation, Egerton University

Corresponding Author's E-mail: [orgjanet@cari.com](mailto:orgjanet@cari.com)

### **ABSTRACT**

**Purpose:** Information communication and technology (ICT) has remained an innovation that has shifted attention from traditional working arrangement to a modern day of doing things in several organizations. The general objective of the study was to the study was to establish influence of integrated information communication technology on public education institution.

**Methodology:** The paper used a desk study review methodology where relevant empirical literature was reviewed to identify main themes and to extract knowledge gaps.

**Findings:** The study found out the use of ICT in schools, leads to educational and pedagogical outcomes which is useful to both the facilitators, teachers and the students. The use of ICT across educational institutions can promote collective, zealous and long-life learning, enhancing students' enthusiasm, provide better convenience to information, enhance shared working resources, generating and deepen comprehension, and help learners reason and express communication creatively

**Recommendations:** The study recommends that there should be more funding to particularly the public schools which are the most constrained, as well as all the others, so that the schools may afford to procure computer hardware, management software, and Internet connectivity which are critical in supporting management functions in the schools and also for the investments sustainability. Such funding will address the initial high cost of ICT infrastructure as well as the recurrent cost of maintenance and operations like hardware servicing, acquisition of requisite and updated software, printing and data

**Keywords:** *Influence, information communication technology, public education institution*

## **1.0 INTRODUCTION**

### **1.1 Background of the Study**

Information communication and technology (ICT) has remained an innovation that has shifted attention from traditional working arrangement to a modern day of doing things in several organisations. A growing body of studies has shown empirical evidence that ICT has significant relationship with performance outcomes- productivity, growth, organizational expansion, efficiency, effectiveness, and competitiveness (Fuller, 2018). Every organisation be it public, not-for profit, and for-profit making entities, around the globe, has not only embraced ICT as a means of cutting cost, but also to improve efficiency and to deliver better values to their respective clienteles. As point out by Fan, Harindranath, and Ozcan, (2018), ICT, in today's competitive environment, is now a necessity as businesses seek to survive the turbulent business environment. Yuen, Law and Mohanty, (2016), posted that ICT has grown exponentially over the last ten years as people and society have been greatly influenced positively. Educational sector has remained one of the sectors that have invested on ICT for enhancing service delivery. According to Asaolu, (2006), schools and families across the globe have invested significant sum of money towards acquiring computers, software, internet connections, as well as other technologies for education.

The use of ICT in schools, according to Andiem, (2016), leads to educational and pedagogical outcomes which is useful to both the facilitators, teachers and the students. The use of ICT across educational institutions can promote collective, zealous and long-life learning, enhancing students' enthusiasm, provide better convenience to information, enhance shared working resources, generating and deepen comprehension, and help learners reason and express communication creatively (Sartika, 2018). The benefits that ICT offers have prompted many educational institutions to embark on various activities that will facilitate the integration and usage of ICT. The ICT activities and programmes that support its integration and usage by educational institutions include: ICT proficiency, ICT infrastructure, management support, and usage as well as ICT policy. In developed as well as emerging countries such as UK, Australia, China, Singapore, programmes aimed at enhancing facilitators' skills in integration and usage of ICT have been established in various schools during teaching and learning processes, and a considerable amount of money has also been invested in ICT infrastructures (Khan, et al., 2012).

While the use of ICT has been enhanced by activities and programme such as ICT proficiency, ICT infrastructures, ICT management supports, usage and its policies across educational sectors in most of the developed and emerging countries in the world (Khan, et al., 2012), there was need to empirically find out if the performance of educational sector, especially tertiary institutions, in developing countries is contingent on ICT integration and usage. ICT, as adopted and used by several organisations, has been identified as a driver of transformation in terms of achieving competitive advantage in today's competitive business environments (Liu, 2013).

Due to continuing changes in different business environments firms are forced to make their businesses more effective, and minimize costs derived from different business activities. Firms have made e-business initiatives in many industries to better manage their internal business processes and functions and their interfaces with the environment (Wu, Mahajan & Balasubramanian, 2003). Earliest features of electronic procurement are from the 1980s when

MRP (Material Requirements Planning) and MRP II (Manufacturing Resource Planning) were a remarkable part of companies businesses (Shoenherr & Tummala, 2007).

Government procurement is not a task to be taken lightly because all Government procurements must be done within a strict code of laws and rules Carol (2000). The internet has revolutionized business to business (B2B) purchasing. Information reaches a larger audience more easily, increasing competition among venders thus driving prices down. For the most part Governments are yet to grasp this phenomenon, instead they use it as a 21st Century bulletin board, offering little more than phone numbers and addresses of department offices, Jerremy Sharrard, "Sizing U.S e-Government", The Forrester Report ,(Lambridge ,MA: Forrester Research INC, August (2000).

The in-cooperation of Information Communication Technology in the administration of schools has positive effects. These may include improvement of the school standards in terms of academics, financial status and in co-curricular activities. The Information and Communication Technologies (ICT) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer, and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. When such technologies are used for school administrative purposes, namely to support and improve School Administration, ICT can be considered as a sub field of Educational Technology (Kumar, 2008). The potential of information communications technology (ICT) in enhancing human capabilities and revolutionizing the management of organizations was first realized in other sectors of human society, mostly in the business world and the military, other than in education (Ray & Davis, 1991). The importance of ICT contribution is also widely recognized both in the workplace and at home (Dawes, 2001; Preston et al. 2000). These examples are just a few pointers which show that ICT is becoming a vital enabling tool that can no longer be ignored in the administration of schools. Computers made their first appearance in certain African schools in North Africa at the end of the 1960s. This was mainly for management applications (Clark & Mayer, 2003). It was only in the 1970s that they were used in educational institutions in North America and Europe. In Africa, the first computers arrived in educational institutions at the end of the 1970s. Governments at this time were apparently motivated by a dual goal which were: to initiate students to the computer and to introduce certain software programs.

Education encompasses teaching and learning specific skills, and also something less tangible but more profound: the imparting of knowledge, positive judgment and welldeveloped wisdom (Alexis, 2003). Education has as one of its fundamental aspects, the imparting of culture from generation to generation. School administration plays a critical role in ensuring that education is passed to the students as recommended. It is also the duty of the school administration to monitor the enrollment of students in the school, availability of educational resources, human labor and availability of finance to sustain the daily activities of the school (Meador, 2011). Alex (2003) argues that schools administrations had to monitor all these records of the school activities by entering the 4 details manually on the books and records of the schools. But with the introduction of ICT in the country, there are various programs that come in handy to minimize the efforts put by the administration in monitoring and managing the school activities. These programs help the administration to monitor their daily activities in the school by a click on button.

## **1.2 Statement of the Problem**

ICTs have been lauded by educators and policy makers around the world as having the potential to enhance effectiveness and efficiency in management and administration of education through their ability to provide quick and critical information for decision making. Public and the private sector have worked together to avail policies and initiatives that are critical in the implementation of ICTs in the public education institutions. These include the formulation of the ICT policy; investment in ICT infrastructure and equipment nationally and in schools respectively; laying of the fibre optic cable across the country plus expansion of the broadband to improve Internet connectivity; and facilitating capacity building of educational officials and teachers to equip them with ICT skills that are requisite in their jobs. Despite these efforts, it is not clear how the public education institution have positioned themselves in readiness to gaining benefits that relate to using ICTs for supporting their management functions. This is because most of the empirical data currently available is on the integration of ICT to support teaching and learning and very little on administration and management. Furthermore, most of the studies that have elicited these data have focused on private educational institution. This background, coupled with the fact that the ministry of education today is keen on using ICT platforms to monitor data on learners, their access to education plus the quality of education in basic educational levels, prompted the need for this study to establish influence of integrated information communication technology on public education institution

## **1.3 Objectives of the Study**

The general objective of the study was to establish influence of integrated information communication technology on public education institution

## **1.4 Justification and Significance of the Study**

The study findings are useful to the Ministry of Education to establish the status of ICT adoption in public education institution and the barriers that limit this adoption. This could enable relevant educational stakeholders to consider revising the existing ICT policies and initiatives so as to address the prevailing barriers to ICT integration in schools. The study also gives education managers in public institution the true picture of ICT integration in management as well as the strategies they may adopt, so as to address the shortfall. The research also add into the existing literature related to ICT adoption in public subsector of education.

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical review**

Two theories were found to be relevant in establishing influence of integrated information communication technology on public education institution. The theories that were found to best inform the research constructs are Technology Acceptance Model (Davis, 1989) and Technology, Organization and Environment Model theory (Fleisher, 1990).

#### **2.2.1 Technology Acceptance Model**

Technology Acceptance Model (TAM) This theory elucidates processes related to the adoption/acceptance and utilization of technological infrastructure by users. This theory proposes that following the presentation of a new technology to a user, various factors affect the user's

decision related to when and how to utilize the technology, including its perceived usefulness as well as perceived ease of use. Davis (2009) argues that perceived ease of use of an ICT infrastructure directly impacts its perceived usefulness, determines the attitude of the consumer towards utilization, and results in behavioural intent to utilize the technology, and the actual utilization of the technology. Therefore, this model is a useful model for this research paper because it gives an overview of ICT adoption as well as the consumers' perception of the technology. Research has indicated that ICT adoption is influenced by various factors, such as infrastructure and employee skills. Ghobakhloo, Hong, Sabouri and Zulkifli (2012) argued that in organizations that have limited resources, adoption of ICT is unlikely because they may not have resource power to lay down the infrastructure requirement for ICT adoption. Regarding this, it is in order to argue that management of such organizations may therefore fail to adopt ICT. Ghobakhloo et al (2012) further stated that in many organizations with employees who are not computer literates, acceptance of ICT may be resisted by such employees. This model is therefore important to this study as it will help us establish influence of integrated information communication technology on public education institution.

### **2.2.2. Technology, Organisation and Environment Model**

This theory emphasizes external and internal characteristics of organization as influencing organizations to adopt technology. It constitutes the environment situation that covers both opportunities and constraints to organisations in technology implementation. The theory posits that organisation factors, including informal and formal linking communication processes and structures within the organisation affect the readiness to implement technology. Additionally, environmental factors, such as technology support infrastructures and governmental regulations determine the swiftness of technology adoption by enterprises. The availability of technology and cost affects the way technology is implemented by enterprises (Rahman, Almoawi, & Mahmood, 2011). This theory was considered to be most applicable to the proposed study because it highlights the major issues that this research study intends to explore (Oliveira & Martins, 2011). Research has shown that many institution are afraid of adopting ICT because of lack of capacity. Bearing in mind that organizations do not operate in a vacuum, there is a serious threat to sensitive data that can bring down the entire enterprise. The theory was found to suit this study because it helps explain the factors that may have influenced the adoption of ICT in schools. The main factors alluded to by the model included attitudes and skills necessary for accepting and adopting ICT that are partly the concern of the current study

### **2.3 Empirical Review**

Joy (2016) investigated the effect of ICT integration on the performance of tertiary institutions in Nairobi City County. The study target population was 149 tertiary institutions in Nairobi City County. Simple random sampling method was used to select the respondents from the sample size of 60 respondents drawn from the ICT specialists employed in the institutions. Data were collected using questionnaires and the internal reliability analysis showed Cronbach's alpha value of 0.60. Results showed that the overall study established that performance of tertiary institutions depends on ICT infrastructure, ICT proficiency, and management support ICT usage. However, ICT policy had no effect of on performance. The R-Square in the study was found to be 0.53. This value indicated that the effect of information communication technology (ICT) integration systems explained 53% of the variance in performance of tertiary institutions. There was a positive

correlation between the Proficiency and the Performance. The infrastructure was the second variable with a positive correlation with tertiary institution performance. Usage had a positive correlation with performance. Management support and policy had a positive correlation with performance which was not significant. As a result, the research findings revealed that with increase in ICT infrastructure and proficiency, more users would continually expose to the capabilities of ICT which would in turn increase their performance. The management involvement in planning ICT use and perception had also changed positively towards use of ICT in teaching and learning. The study established that the support of policy makers is needed for ICT to be properly utilised so as to enhance performance among Tertiary Institutions in Kenya.

Isaac (2011), conducted a study to actors that affect implementation of electronic procurement system in parastatals under the ministry of special programmes in Kenya. The researcher employed descriptive research design, Primary data was collected using a questionnaire, and there after data was analyzed using both quantitative and qualitative methods and presented in form of tables and charts. Majority of the respondents were learned male of between 30-40 years of age who have been in the organization for less than 2 years. Most of the respondents believed that costs associated with the Implementation of e-procurement have a direct impact on the Organizations. All the respondents agreed that training of users and management's support has a positive impact on the Implementation of the e-procurement system. Training of stakeholders also posed a challenge as they implemented the electronic Procurement system. It was also noted that turnover of the employees' required continuous training for the incoming staff. Formal recognition backed by legislation of the electronic procurement transactions should be encouraged to accelerate the rate of Implementation of the System within the public sector. Integration of the Organizations system and those of the suppliers, demonstration of the positive impact of the system, and installation of linkages between all Governments agencies .should be encouraged for faster Implementation of the eprocurement system in the public sector.

Jacinta (2016) sought to examine the extent to which school administrators apply Information Communication Technology in human resources administration, the application of Information Communication Technology in administration of physical resources, the extent to which school administrators apply Information Communication Technology in financial administration, challenges facing administrators in application of ICT in school administration and the measures that can be taken to improve the application of ICT. A survey research design was used in the study. The target population of this study was four hundred and thirty (N=430). Simple random sampling and purposive sampling procedures were used to arrive at the sample (Students, computer teachers, and the school administrator (principal). In total the sample size was one hundred and thirty (n=130). However, from the analysis, one hundred and six of them participated in the study. Questionnaires were used to collect data from the students whereas interview guides were used for the teachers and school administrators. The collected data was analysed using descriptive statistics, employing both quantitative and qualitative approaches. Data from questionnaires were purely analyzed quantitatively, and presented in frequencies and percentages while those collected through the interview method was analysed qualitatively. They were synthesized to a presentable data and the key points emerging were reported in narrative form based on the key study themes. From the analysis, the following conclusions were made: most of the public secondary schools in Lang'ata have embraced Information Communication Technology

in the administration of human resources for instance in monitoring attendances, performance, staff training and recruiting of the staff.

Mwangi (2011) conducted a study to investigate the influence of IFMIS on Public Procurement Performance in Kiambu County Government. Specifically, the study was narrowed down to: determine the influence of IFMIS control systems, online tendering, automated planning and automated supplier engagement on public procurement performance in Kiambu County Government. The results also demonstrated the current status of IFMIS and its influence in the County Government of Kiambu. This study was based on Diffusion of Innovation Theory, Information Systems Success Theory, E-technology Perspective Theory and Agency Theory. These theories related well with the study variables. The study also adopted a descriptive research design, where the target population comprised of 100 individuals in top management, departmental staff, and supervisors. A sample of 80 respondents was selected, representing 80% of the population. Statistical software for social sciences SPSS (version 16) was employed in data analysis. Qualitative data was analysed using content analysis. Quantitative data was analysed through the use of descriptive statistics which include: frequencies, percentages, means, standard deviations as well as multiple linear regression model. Study findings concluded that IFMIS had a significant relationship with public procurement performance, as demonstrated by the four study variables, since significant relationships were established between IFMIS control systems, online tendering, automated planning, automated supplier engagement on public procurement performance. The study concluded that IFMIS has influence on public procurement performance in Kiambu county government. Changing either IFMIS control systems, online tendering, automated planning and automated supplier engagement would significantly affect public procurement performance.

Judith (2016) conducted a study to investigate the readiness of public secondary schools to adopt ICTs for school management. It was guided by four objectives namely: to assess the availability of computers, management software and Internet connectivity within the schools; to establish the schools managers' preparedness to use ICT tools to perform management functions based on their attitudes, ICT skills and training; to establish the extent to which schools utilized ICTs to perform educational management functions; and to identify challenges impending schools to integrate ICTs in school management. The study used a descriptive survey research design and the target population was 20 public secondary schools in the Sub County, their principals, deputy principals, heads of departments (HoDs), accounts clerks and secretaries. Systematic sampling technique was employed to select 10 schools that participated in the study. To sample the respondents, purposive sampling technique was used to arrive at the following categories: 10 principals; 10 deputy principals; 40 HoDs; 10 accounts clerks and 10 secretaries. The sample size of the study was thus 80 respondents. The research instruments included questionnaires and an observation schedule. Validity of these instruments was established through expert judgment while Cronbach alpha was computed to test their reliability. Data was analysed using the Statistical Package for Social Sciences (SPSS) version-22-computer program. Descriptive statistics such as frequencies and percentages were used to analyse the quantitative data. Analysed data was presented using charts and tables. The study concluded that availability of ICT tools namely: computer hardware, management software and Internet connectivity that are critical for supporting management processes was quite low in schools, and the funds allocated for the same were insignificant.

Secondly, the management and support staff lacked appropriate skills for integrating ICT in management.

### 2.3 Research gaps

Geographical gap is a knowledge gap that considers, the untapped potential or missing/limited research literature, in the geographical area that has not yet been explored or is under-explored. Mwangi (2011) conducted a study to investigate the influence of IFMIS on Public Procurement Performance in Kiambu County Government. Quantitative data was analysed through the use of descriptive statistics which include: frequencies, percentages, means, standard deviations as well as multiple linear regression model. Study findings concluded that IFMIS had a significant relationship with public procurement performance. The study presented a geographical gap as it was done in Kiambu while our current study sought to establish influence of integrated information communication technology on public education institution.

Joy (2016) investigated the effect of ICT integration on the performance of tertiary institutions in Nairobi City County. The study target population was 149 tertiary institutions in Nairobi City County. Simple random sampling method was used to select the respondents from the sample size of 60 respondents drawn from the ICT specialists employed in the institutions. Data were collected using questionnaires and the internal reliability analysis showed Cronbach's alpha value of 0.6. The study established that the support of policy makers is needed for ICT to be properly utilised so as to enhance performance among Tertiary Institutions in Kenya. The study presented a geographical gap as it was done in Kenya while our current study sought to establish influence of integrated information communication technology on public education institution

Isaac (2011), conducted a study to actors that affect implementation of electronic procurement system in parastatals under the ministry of special programmes in Kenya. The researcher employed descriptive research design, Primary data was collected using a questionnaire, and there after data was analyzed using both quantitative and qualitative methods and presented in form of tables and charts. Majority of the respondents were learned male of between 30-40 years of age who have been in the organization for less than 2 years. Result revealed that formal recognition backed by legislation of the electronic procurement transactions should be encouraged to accelerate the rate of Implementation of the System within the public sector. The study presented a geographical gap as it was done in Kenya while our current study sought to establish influence of integrated information communication technology on public education institution

Methodological gap is the gap that is presented as a result in limitations in the methods and techniques used in the research (explains the situation as it is, avoids bias, positivism, etc.). Judith (2016) conducted a study to investigate the readiness of public secondary schools to adopt ICTs for school management. The study used a descriptive survey research design and the target population was 20 public secondary schools in the Sub County, their principals, deputy principals, heads of departments (HoDs), accounts clerks and secretaries. The study concluded that availability of ICT tools namely: computer hardware, management software and Internet connectivity that are critical for supporting management processes was quite low in schools, and the funds allocated for the same were insignificant. Secondly, the management and support staff lacked appropriate skills for integrating ICT in management. The study presented a methodological gap as it was subjected

to descriptive survey research design while our current study adopted a desktop literature review method.

Conceptual gap arises because of some difference between the user's mental model of the application and how the application actually works. Jacinta (2016) sought to examine the extent to which school administrators apply Information Communication Technology in human resources administration, the application of Information Communication Technology in administration of physical resources, the extent to which school administrators apply Information Communication Technology in financial administration, challenges facing administrators in application of ICT in school administration and the measures that can be taken to improve the application of ICT. The result revealed that most of the public secondary schools in Lang'ata have embraced Information Communication Technology in the administration of human resources for instance in monitoring attendances, performance, staff training and recruiting of the staff.

Mwangi (2011) conducted a study to investigate the influence of IFMIS on Public Procurement Performance in Kiambu County Government. Quantitative data was analyzed through the use of descriptive statistics which include: frequencies, percentages, means, standard deviations as well as multiple linear regression model. Study findings concluded that IFMIS had a significant relationship with public procurement performance.

Judith (2016) conducted a study to investigate the readiness of public secondary schools to adopt ICTs for school management. The study concluded that availability of ICT tools namely: computer hardware, management software and Internet connectivity that are critical for supporting management processes was quite low in schools, and the funds allocated for the same were insignificant. Secondly, the management and support staff lacked appropriate skills for integrating ICT in management. All this studies presented a conceptual gap as our study sought to establish influence of integrated information communication technology on public education institution

### **3.0 METHODOLOGY**

The study adopted a desktop literature review method (desk study). This involved an in-depth review of studies related to influence of integrated information communication technology on public education institution. Three sorting stages were implemented on the subject under study in order to determine the viability of the subject for research. This is the first stage that comprised the initial identification of all articles that were based on influence of integrated information communication technology on public education institution from various data bases. The search was done generally by searching the articles in the article title, abstract, keywords. A second search involved fully available publications on the subject on influence of integrated information communication technology on public education institution. The third step involved the selection of fully accessible publications. Reduction of the literature to only fully accessible publications yielded specificity and allowed the researcher to focus on the articles that related to influence of integrated information communication technology on public education institution which was split into top key words. After an in-depth search into the top key words (influence, integrated information technology, public education system), the researcher arrived at 6 articles that were suitable for analysis. The 6 articles were findings from Mwangi (2011) who conducted a study to investigate the influence of IFMIS on Public Procurement Performance in Kiambu County Government. Quantitative data was analysed through the use of descriptive statistics which

include: frequencies, percentages, means, standard deviations as well as multiple linear regression model. Study findings concluded that IFMIS had a significant relationship with public procurement performance.

Joy (2016) who investigated the effect of ICT integration on the performance of tertiary institutions in Nairobi City County. The study target population was 149 tertiary institutions in Nairobi City County. Simple random sampling method was used to select the respondents from the sample size of 60 respondents drawn from the ICT specialists employed in the institutions. Data were collected using questionnaires and the internal reliability analysis showed Cronbach's alpha value of 0.6. The study established that the support of policy makers is needed for ICT to be properly utilised so as to enhance performance among Tertiary Institutions in Kenya.

Isaac (2011), who conducted a study to actors that affect implementation of electronic procurement system in parastatals under the ministry of special programmes in Kenya. The researcher employed descriptive research design, Primary data was collected using a questionnaire, and there after data was analyzed using both quantitative and qualitative methods and presented in form of tables and charts. Majority of the respondents were learned male of between 30-40 years of age who have been in the organization for less than 2 years. Result revealed that formal recognition backed by legislation of the electronic procurement transactions should be encouraged to accelerate the rate of Implementation of the System within the public sector.

Jacinta (2016) who sought to examine the extent to which school administrators apply Information Communication Technology in human resources administration, the application of Information Communication Technology in administration of physical resources, the extent to which school administrators apply Information Communication Technology in financial administration, challenges facing administrators in application of ICT in school administration and the measures that can be taken to improve the application of ICT. The result revealed that most of the public secondary schools in Lang'ata have embraced Information Communication Technology in the administration of human resources for instance in monitoring attendances, performance, staff training and recruiting of the staff.

Judith (2016) who conducted a study to investigate the readiness of public secondary schools to adopt ICTs for school management. The study used a descriptive survey research design and the target population was 20 public secondary schools in the Sub County, their principals, deputy principals, heads of departments (HoDs), accounts clerks and secretaries. The study concluded that availability of ICT tools namely: computer hardware, management software and Internet connectivity that are critical for supporting management processes was quite low in schools, and the funds allocated for the same were insignificant. Secondly, the management and support staff lacked appropriate skills for integrating ICT in management.

#### **4.0 SUMMARY, CONCLUSION AND POLICY IMPLICATION FOR FURTHER STUDY**

##### **4.1 Summary**

ICT integration in educational institutions management has faced several challenges that impede their effectiveness in education management. The technologies unawareness and negative mind

set towards the tools by workers in educational institutions have worked against ICTs adoption in many settings. Most of the staff are often resistant and feel comfortable doing things the same old ways.

#### **4.2 Conclusion**

The study concluded that availability of ICT tools namely: computer hardware, management software and Internet connectivity that are critical for supporting management processes was quite low in schools, and the funds allocated for the same were insignificant. The management and support staff lacked appropriate skills for integrating ICT in management.

#### **4.3 Recommendations**

The study recommends that the stakeholders in public education institution should appropriately put in place policies and suitable mechanisms (e.g. finances, administrative software, advisory services and capacity building) to enable schools ICT management functions such as general administration, support in budgeting, procurement processes as well as monitoring funds and grants. These would enable planning, utilization and monitoring of use of public funds in the schools which would further enhance good general administration and financial management practices which in turn would result to better education outputs since efforts and funds will be directed where they were targeted initially.

The study recommends that there should be more funding to particularly the public schools which are the most constrained, as well as all the others, so that the schools may afford to procure computer hardware, management software, and Internet connectivity which are critical in supporting management functions in the schools and also for the investments sustainability. Such funding will address the initial high cost of ICT infrastructure as well as the recurrent cost of maintenance and operations like hardware servicing, acquisition of requisite and updated software, printing and data.

## 5.0 REFERENCES

- Aleri, C. O. (2012). The perceived effect of public procurement law on procurement efficiency and effectiveness among parastatals in Kisumu County, Kenya (Doctoral dissertation, University of Nairobi, Kenya).
- Andiema, N. C. (2015). Adoption of Information Communication Technology on Teaching and Learning in Public Pre-Schools in North Rift Region, Kenya.
- Ebot, E. M. (2019). FACULTY OF DEPARTMENT OF EDUCATIONAL EDUCATION FOUNDATIONS AND ADMINISTRATION (Doctoral dissertation, University of Buea).
- Edwards, M., Kumar, S., & Ochoa, M. (2010). Assessing the value of embedded librarians in an online graduate educational technology course. *Public Services Quarterly*, 6(2-3), 271-291.
- Emmanuel, N. M. (2021). EVALUATING THE USE OF ICTS IN SECONDARY SCHOOL ADMINISTRATION IN CAMEROON: THE CASE OF SOME SECONDARY SCHOOLS IN THE BUEA MUNICIPALITY. *IJER-International Journal of Educational Research*, 4(02), 62-75.
- Emmanuel, N. M. (2021). EVALUATING THE USE OF ICTS IN SECONDARY SCHOOL ADMINISTRATION IN CAMEROON: THE CASE OF SOME SECONDARY SCHOOLS IN THE BUEA MUNICIPALITY. *IJER-International Journal of Educational Research*, 4(02), 62-75.
- Fan, K., Wang, S., Ren, Y., Li, H., & Yang, Y. (2018). Medblock: Efficient and secure medical data sharing via blockchain. *Journal of medical systems*, 42(8), 1-11.
- Fuller, B., Liu, Y., Bajaba, S., Marler, L. E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. *Personality and Individual Differences*, 125, 120-125.
- Khan, M., Hossain, S., Hasan, M., & Clement, C. K. (2012). Barriers to the introduction of ICT into education in developing countries: The example of Bangladesh. *Online Submission*, 5(2), 61-80.
- Kibor, J. J., & Tumuti, J. (2020). Information and Communications Technology Integration and Performance of Tertiary Institutions in Nairobi County, Kenya. *East African Journal of Information Technology*, 2(1), 1-7.
- Koome, J. N. (2017). Influence of Institutional Factors on Integration of Information Communication Technology in English Curriculum in Public Secondary Schools, Igembe-north Sub-county, Kenya (Doctoral dissertation, University of Nairobi).
- Liu, Y. (2013). Sustainable competitive advantage in turbulent business environments. *International Journal of Production Research*, 51(10), 2821-2841.
- Mohanty, S., & Routray, S. K. (2016). CE-Driven Trends in Global Communications: Strategic sectors for economic growth and development. *IEEE Consumer Electronics Magazine*, 6(1), 61-65.

- Mwapwele, S. D., Marais, M., Dlamini, S., & Van Biljon, J. (2019). Teachers' ICT Adoption in South African Rural Schools: A Study of Technology Readiness and Implications for the South Africa Connect Broadband Policy. *The African Journal of Information and Communication*, 24, 1-21.
- Education and Practices ISSN 2617-5444 (ONLINE) & ISSN 2617-6874 (PRINT), 3(1), 30-46.
- Park, S. Y., Nam, M. W., & Cha, S. B. (2012). University students' behavioral intention to use mobile learning: Evaluating the technology acceptance model. *British journal of educational technology*, 43(4), 592-605.
- Sartika, E., Suparjo, S., Hakim, I. N., & Supardan, D. (2018). Building Students' Islamic Characters through Information, Communication dan Technology Literacy. *AJIS: Academic Journal of Islamic Studies*, 3(2).
- Tondeur, J., Van Braak, J., & Valcke, M. (2007). Curricula and the use of ICT in education: Two worlds apart?. *British Journal of educational technology*, 38(6), 962-976.