
INTEGRATION OF ICT IN SCHOOL FINANCIAL MANAGEMENT OF SELECTED PUBLIC SECONDARY SCHOOLS IN GREATER MBARARA REGION

¹Conrad M. Mubaraka

Senior Lecturer, Computer Education, Kabale University

²Richard Bende Karamuzi

Assistant Lecturer, Foundations of Education, Kabale University

³Eliab Byamukama Mpora

Senior Lecturer, Finance and Accounting, Kabale University

Publication Date: March 2026

ABSTRACT

Purpose of Study: This study was intended to determine the relationship between ICT integration and financial management performance in a sample of public secondary schools.

Problem Statement: There is no enthusiasm about incorporating ICT into core management functions most especially in financial management in public secondary schools in greater Mbarara.

Methodology: The study adopted a quantitative and qualitative approach using cross-sectional research design; data was collected from a sample of 102 respondents, most of whom were officials dealing with finances.

Result: Results showed that high positive linear correlations were observed at $r = +0.611$, $+0.709$ and $+0.828$, an indicative that there is a positive significance association between ICT integration and financial management among public secondary schools in Mbarara City. This then implies that ICT integration influences financial management.

Recommendation: The study recommended that awareness, empowerment and governmental intervention towards the implementation of ICT integration in school financial management system should be fastened through training, availability of technological infrastructure, ICT experts/personnel and availability of internet and electricity.

Keywords: *ICT Integration, Budgeting, Finance Management*

STATEMENT OF THE PROBLEM

Many scholars around the world have been drawn to the use of ICT in organizational activities, specifically in schools and focused on teaching and learning. Finance management is pivotal in most school administration and support. For example, Pflum (2004) investigated ICT integration in secondary schools where he noticed a number of computers at Springdale Secondary School in Ohio City, Ohio, in the United States of America. However, no school administrators were enthusiastic about incorporating ICT into core management functions. Also Whitehead, Jensen, and Boschee (2003) looked at the revolution of integrating ICT into the classroom as causing administrators to reconsider school curricula and devise methods of integrating ICT into administration activities. While studies on the application of ICT in management have been conducted, the majority of them have left out the element of applying ICT in financial management, despite the fact that most systems in educational institutions are now computerized. Finances are double sworded in that they can support growth of organizations and can equally cause collapse of the same organizations. Therefore we sought to establish the relationship between ICT integration and financial management among public secondary schools in Mbarara City.

PURPOSE OF THE STUDY

The primary goal of this research was to determine the relationship between ICT integration and financial management performance in a sample of public secondary schools in Mbarara City.

LITERATURE REVIEW

Grey (2000) examined the influence of ICT in finance administration in a firm in London. The study findings revealed that most institutions have software packages for accounting which help in generation of legislative accounts and reports as well as assisting in the daily control of finances. Sage was found to be the most popular and useful package used by small and medium businesses in UK. The study also found out that sage has payment and debt management modules. Findings also revealed that spreadsheets were widely utilized by finance department to manage cash flows. This study occurred in greater Mbarara, whose schools use tally and excel in most finance management activities.

In a similar study, Grey (2000) and Karl, (2000) found out that the adoption of ICT facilitates online banking systems which enables prompt transactions thereby saving time and ensuring that payments have been honored and accepted, and also to operate the bank account within agreed overdraft limit. In school setting, ICT is used in financial management. In financial accounting, spreadsheet like Microsoft excel have been widely used; however, the extent to which ICT has been adopted in management of finances remained unclear among secondary schools in Uganda.

Almiron (2007) conducted a study about utilizing ICT in finance deals. The study findings revealed that ICT adoption in financial management helps in promoting transparency. This restricts and reduces cases of financial fraud by some of the administrators. This facilitates proper usage of school resources to their appropriate designations. However, this study was not done in public secondary schools, moreover in Uganda.

According to Okumbe (2006), he argued that management of school accounts was concerned with preparation of school budget and monitoring expenditure which is basically involved with maintenance of appropriate record keeping, accounting and auditing procedures. He further notes that ICT can help managers to retrieve and evaluate information related to the budget. Budget

making begins with formulating some fundamental assumptions that are pertinent to the institution which must be based on the past experience of schools' financial management. The author did not consider online registration and fees collections in public secondary schools, which we looked at. He drew much attention to budgeting and monitoring of usage of finances.

Cheryl (2005) asserted that the adoption of ICT has the most and convenient ways of handling financial transactions over a short period of time. ICT can be adopted by school administrators in payment of staff salaries and allowances as well as making orders for school supplies. On top of that, they are able to keep all the records of transactions done. ICT systems enabled managers to gauge themselves on the basis of cash inflows and cash outflows. The scholar here focused on managers who control use of finance leaving the students who bring the finance, moreover in public secondary schools in Mbarara.

Eyo (2012) claimed that the integration of ICT has dramatically increased and improved communication in an organisation. Olevy (2006) complements that intranet is the most common internal network set up by an organisation to share data online. This facilitates continued flow of information within an organisation without have unnecessary physical movements. The intranet enables quick delivery of information among different department and also reduces distortions and duplication of information. Much as this study emphasized intranet mode of finance management, the scholars did not study its application in public secondary schools, moreover in Mbarara.

Matovu (2012), postulated that ICT integration fastens the sharing of data electronically which reduces the workload in an organization and improves performance. This calls for administrators of secondary schools to integrate ICT in their management system. The introduction of Universal primary education and consequently universal secondary education in Uganda has made schools receive very many students which calls for adoption of appropriate information system for managing such huge data. The school looked at capitation grant which is directed to school managers and left the student fiancé management process out, which this study focused on.

Most of the gaps identified in this study were geographical. Most of the studies have been done in developed economies, few in developing economies. However, there is no notable study that has been carried out on integration of ICT in school financial management with special reference to Mbarara. Also, most of the studies were done on the use of ICT in general administration and this generalized findings. This study concentrated on integration of ICT in school financial management. Hence, the present study closed the gaps which are geographical, content and methodological.

METHODOLOGY

The study majorly used a cross-sectional correlational research design with embedded interviews to enable researchers collect data once across selected population of interest in this study and later related the findings. This design was adopted in that it was relatively cheaper in terms of time and cost. Both quantitative and qualitative research approaches for data collection and analysis were used in this study. Qualitative approach helped in interpreting peoples' opinions, perceptions, and attitudes to give a deeper understanding into the problem under investigation and quantitative approach helped us reach many respondents in a short time. Questionnaires and some interviews were administered in Greater Mbarara in selected public secondary schools with emphasis on computing facilities, skills, budgeting and monitoring among others. The study targeted mainly administrative staff such as head teachers, treasurers and the bursars for their key roles in school finance management. Using the Krejcie (1970) the following samples were drawn.

Table 1: Sample Size Determination Matrix

Category of respondents	Population size	Sample Size	Criteria
Head Teachers	30	22	1 st Grade schools (student population of above 700)
Bursars	60	40	Schools with fees collections entirely in banks
Treasurers	60	40	Schools with fees collections entirely in banks
Total	150	102	

FINDINGS AND DISCUSSION

This section presents the findings on the relationship between ICT integration and financial management performance in a sample of public secondary schools in greater Mbarara. The following are findings of the factors that facilitate ICT integration in financial management.

Table 2: Descriptive Statistics

		Responses		Percent of Cases
		N	Percent	
Facilitates ICT	Availability of technology infrastructure	17	16.7%	16.7%
	Availability of skilled ICT personnel	17	16.7%	16.9%
	Quality of software and hardware	19	18.6%	18.6%
	Access to resources like electricity	17	16.7%	16.7%
	Background in formal computer training	18	17.6%	17.6%
	Commitment to professional learning	18	17.6%	17.6%
Total		102	100.0%	100.0%

a. Dichotomy group tabulated at value 1.

Table 2 shows that quality of software and hardware; level of acquaintance with computing and commitment to professional learning emerged as key factors that facilitate ICT integration in financial management among public secondary schools in Mbarara City. Furthermore, the interviews derived major themes of system access and level of acquaintance with computing software which collaborate well with the quantitative data. Generally, both qualitative and quantitative findings proposed that ICT skilling, especially in finance management is a major factor to be considered. Having knowledge of accounting and computer skills is a great factor to be included as this helps to boost the confidence and competence of the user. Below are the inferential statistics of the different study constructs.

Table 3: Correlation Matrix

	Management of school accounts	Access to resources like electricity
Pearson Correlation	1	.611**
Management of school accounts Sig. (2-tailed)		.000
N	86	86
Pearson Correlation	.611**	1
Access to resources like electricity Sig. (2-tailed)	.000	
N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows that when “Management of school accounts and Access to resources like electricity” were correlated, a strong positive linear correlation was observed at $r= +0.611$. It is an indicative that there is a positive significance association between ICT integration and financial management among selected secondary schools in Mbarara.

Table 4: Correlation Matrix

	Online registration of students	Quality of software and hardware
Pearson Correlation	1	.709**
Online registration of students Sig. (2-tailed)		.000
N	86	86
Pearson Correlation	.709**	1
Quality of software and hardware Sig. (2-tailed)	.000	
N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4 above detailed that when “online registration of students and quality of software and hardware” were correlated, a high positive linear correlation was observed at $r= +0.709$. It is an indicative that there is a positive significance association between ICT integration and financial management among selected secondary schools in Mbarara City.

Table 5: Correlation Matrix

		Budget preparation and forecasting	Availability of skilled ICT personnel
Budget preparation and forecasting	Pearson Correlation	1	.828**
	Sig. (2-tailed)		.000
	N	86	86
Availability of skilled ICT personnel	Pearson Correlation	.828**	1
	Sig. (2-tailed)	.000	
	N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5 above showed that when “Budget preparation and forecasting and availability of skilled ICT personnel” were correlated, a high positive linear correlation was observed at $r = +0.828$. It is an indicative that there is a positive significance association between ICT integration and financial management among public secondary schools in Mbarara City. This mean that if ICT integration is incorporated in these schools, it strengthens budget preparation and forecasting in the school management through the help or availability of skilled ICT personnel. So for this to be possible ICT integration is possible if there is skilled ICT personnel to manage it.

DISCUSSION

The study sought to establish the relationship between ICT integration and financial management with focus on school accounts, Access to resources, online registration, quality of computing facilities, budgeting and computing skills. The following is the discussion of results. The results were well supported by Cheryl (2005) who asserted that integration of ICT has the most and convenient ways of handling financial transactions over a short period of time. ICT can be adopted by school administrators in payment of staff salaries and allowances as well as making orders for school supplies. On top of that, they are able to keep all the records of transactions done. ICT systems enabled managers to gauge themselves on the basis of cash inflows and cash outflows.

Eyo (2012) was also in conformity with the study finding. He claimed that the integration of ICT has dramatically increased and improved communication in an organisation. Olevy (2006) complements that intranet is the most common internal network set up by an organisation to share data online. This facilitates continued flow of information within an organisation without having unnecessary physical movements. The internet enables quick delivery of information among different department and also reduces distortions and duplication of information.

Also Matovu (2012), postulated that ICT integration fastens the sharing of data electronically which reduces the workload in an organisation and improves performance. This calls for administrators of secondary schools to integrate ICT in their management system. All these points out that there is a relationship that exists between ICT integration and financial management and

if properly implemented school in Mbarara City will enjoy faster, safe and accurate share and storage of information and financial records and reports.

CONCLUSION AND RECOMMENDATIONS

This study concluded that ICT integration in finance management of many organisations, such as schools has commendable pay off. The study therefore recommends that: i) More awareness and empowerment need to be created among administrators on the benefits of ICT integration in school financial management system; ii) More so, there is need for government to facilitate the innovation and constructing well equipped technological infrastructures in schools and also funding or scholarships for school administrators to enhance their ICT skills; iii) In addition to that, there is need to put into place functional internet and alternative source of electricity in case of power outage so that there is continuous running of the system without any distortion or unease for the users; and iv) The study also recommends that there should be mandatory implementation of e-record keeping to enhance schools integration of ICT in their school management process.

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