

# EFFECT OF ACCOUNTING INFORMATION SOFTWARE USE ON SERVICE DELIVERY IN PUBLIC SECONDARY SCHOOLS IN KERICHO COUNTY

<sup>1\*</sup>Benard Bii, <sup>2</sup>Willy Rugutt, <sup>3</sup>Joseph K. Rotich

<sup>1</sup>Department of Accounting and Finance, University of Kabianga, Kenya

<sup>2</sup>Department of Accounting and Finance, University of Kabianga, Kenya

<sup>3</sup>Department of Agricultural Biosystems and Economics, University of Kabianga

\*University of Kabianga, P.O Box 2030-20200, Kericho, Kenya

Corresponding Author: <sup>1\*</sup>Benard bii

Email: [bernardbii1987@gmail.com](mailto:bernardbii1987@gmail.com)

---

**Abstract:** Accounting information systems are increasingly used and viewed as important in all spheres of operation including education where it has become valuable for storing and analyzing data in school financial management which includes budgetary allocations, expenditures, students' fees payment and general accounting. It is a government policy that all schools' operations be automated for easy management and despite considerable growth in the use of computers acquired by schools in Kenya in recent years, there has been little evaluation of their effectiveness on service delivery. The study specifically sought to establish the effect of software use in accounting information systems on service delivery in public secondary schools in Kericho County. The study was guided by Technology Acceptance Theory. The study employed descriptive research design. The study targeted principals and school accountants of all the public secondary schools in Kericho County who totals up to 400 where a sample size of 200 respondents was sampled. Simple random sampling and stratified sampling technique was used to select respondents. The study used primary data which was collected using self-administered questionnaires. Quantitative data was analyzed using descriptive statistics with the aid of SPSS version 23.0 while qualitative data was analyzed using inferential statistics. Analyzed data was presented using tables and graphs. The findings shows that accounting information software use affect service delivery ( $T = 8.072$ ,  $p < 0.05$ ). There is need for training on use of accounting information system; segregation of duties be implemented so that users of the systems are monitored or evaluated based on every financial transaction and that capacity building be organized for workforce so that they give quality service.

**Keywords:** Accounting Software, Accounting Software, Service Delivery.

---

## 1. INTRODUCTION

An Accounting Information System (AIS) is a set of interdependent activities, documents, and technology designed to collect, process, and report information for decision-making purposes (Hurt 2013). The efficient integration of accounting applications enhances the flexibility of information generation, improves the quality of the financial report produced, and provides timely and reliable information to support planning and decision making within the organization (Roberts and Strikes 2011, Shagari et al., 2015). Successful implementations of AIS in organizations have impacted positively the methods of data collection, processing, and dissemination of the information to the intended user(s) (Damera et al., 2013).

Moreover, AIS are believed not just to improve the effectiveness and efficiency of business processes and reduce cost but also to provide reliable real-time data on demand, facilitating global knowledge and new reporting tools, as well as the integration and collaboration between areas of risk and business operations (Bruno et al., 2015). Considering the nature of IS today, rarely is AIS distinguished separately from IS (Gelinas, Dull, and Wheeler 2012), Mancini, Dameri, and Bonollo (2015), opined that the integration of IS and AIS influences the quality and quantity of information available to support decision making. The connection between these two elements at the operational level affects not only the technical aspects of the system, it is also capable of showing its overall effects on the accountability processes of organizations. Thus, accounting information systems are an important component in enhancing service delivery (Bruno et al., 2015).

Bentley, Cao, and Lehaney (2013), argued that low data quality, a lack of system specification, a lack of communication within the system, inflexibility of the systems, and poor system management were causes of IS ineffectiveness (failure). In addition, Kanungo, Duda, and Srinivas (1999), indicated that facilitating information retrieval, improving product and services quality, and minimizing errors in system functional areas have a significant influence on IS effectiveness. Furthermore, the study revealed that improving system integration is the most influential factor that leads to the AIS effectiveness.

While “most countries have reported up to 41% of use of accounting information systems in school management and in teaching/learning, the utilization of accounting information system in service delivery is not optimal in Kenya despite the huge amounts of money invested in secondary school education (Ministry of education, 2012). According to the Ministry of Education (2018), approximately 10% of public secondary schools with computers are able to use them in managing their day to day accounting operations. The government has also put in efforts to supply computers, accounting information systems, train teachers in some schools and mobilize support from development partners.

According to the Kericho County Education Office (2020), majority of the 200 public secondary schools in the County have accounting information systems used in school management but most of them still offer poor service delivery. Accounting information systems are increasingly used and viewed as important in all spheres of operation including education where it has become valuable for storing and analyzing data in school financial management which includes budgetary allocations, expenditures, students’ fees payment and general accounting. It is a government policy that all schools’ operations be automated for easy managements and despite considerable growth in the use of computers acquired by schools in Kenya in recent years, there has been little evaluation of their effectiveness on service delivery. It was from this perspective that the study sought to investigate the influence of accounting information systems on service delivery of public secondary schools in Kericho County, Kenya.”

## **2. LITERATURE REVIEW**

Accounting information “systems have been developed to assist in service delivery through customized management information systems (MIS) which have been used to enhance financial transactions in schools. The exact nature of accounting information “systems and service delivery varies from school to school in light of local circumstances. The accounting manager in secondary schools implement finance policies, process financial and monitor budget on daily basis as well as relieving the head teacher from the necessity of having to carry out some other financial and resource management tasks. Victoria (2002), asserted that ICT can provide means for communicating accounting information to the administration to help them with decision making and service delivery.

The use of financial software gives the bursar a good indication about the direction of the business for school and a means of comparing data with previous months, terms and years (Gbenga 2003). This gives a baseline for effective decision making, about how fees should be collected, how salaries should be paid and how to carry out other procurement services in the school. He stated that the use of ICT for accounting purposes needs a standard software installed on interlinked computers where all transactions can be automatically logged on the computer to assist in fees payments, payrolls, procurements. A networked ICT environment with information systems can be used in the flow of data and information from one department to another in the school, for example from the bursar’s office, to the principal’s office which results into improved in service delivery, administrative and operational efficiency of the school. Samer and Sambamurthy (2006), contended that the absence of such systems in the school may result into the following problems; delays in decision making due to high cycle time in business transactions, high Inventory, poor utilization of accounting and other school resources and poor service delivery.

The development of a standard payroll computer system has made the bursar's role easy. Payroll is enumeration of employees receiving regular pay. A computerized payroll system has set of interdependent items and rules that stipulate the pay conditions of a given organization, such as salary structure, tax schedules, benefits and allowances, frequency and pay dates of an employee. A payroll system is used by an organization to process and pay the wages of employees. In a networked environment, all duties will be easier done automatically with the command from the bursar. From this point of view, it means that ICT will be important to those who are involved in all types of school finance management (Passey 1999). There have been very few studies into accounting aspects of ICT for managers in schools."

The use of financial software gives the bursar a good indication about the direction of the business for school and a means of comparing data with previous months, terms and years (Gbenga 2003). This gives a baseline for effective decision making, about how fees should be collected, how salaries should be paid and how to carry out other procurement services in the school. He stated that the use of ICT for accounting purposes needs a standard software installed on interlinked computers where all transactions can be automatically logged on the computer to assist in fees payments, payrolls, procurements. A networked ICT environment with information systems can be used in the flow of data and information from one department to another in the school, for example from the bursar's office, to the principal's office which results into improved in service delivery, administrative and operational efficiency of the school. Samer and Sambamurthy (2006), contended that the absence of such systems in the school may result into the following problems; delays in decision making due to high cycle time in business transactions, high Inventory, poor utilization of accounting and other school resources and poor service delivery.

The development of a standard payroll computer system has made the bursar's role easy. Payroll is enumeration of employees receiving regular pay. A computerized payroll system has set of interdependent items and rules that stipulate the pay conditions of a given organization, such as salary structure, tax schedules, benefits and allowances, frequency and pay dates of an employee. A payroll system is used by an organization to process and pay the wages of employees. In a networked environment, all duties will be easier done automatically with the command from the bursar. From this point of view, it means that ICT will be important to those who are involved in all types of school finance management (Passey 1999). There have been very few studies into accounting aspects of ICT for managers in schools.

The study adopted Technological Acceptance Model. Technological Acceptance Model was developed in 1989 by Davis. The theory clarifies the way clients embrace/acknowledge and utilize an innovation. The theory that once a user is given additional invention, certain components sway their selection of how and when they will employ it. This integrates its obvious handiness and seen helpfulness. Different variables like clients, contenders, monetary components and outside impacts from providers are not taken in by (van Akkeren and Harker 2003). Technology Acceptance Model (TAM) is also used to explain adoption of innovation by individuals. The main purpose of TAM is to explain the determinants of end computer acceptance and to explain a broad range of end user behavior across computing technology, while also being both economically and theoretically justified (Davis 1996). TAM assesses use of IT based on the influence of two main variables, namely (1) perceived ease of use and perceived usefulness (2) user's attitude, behavioral intention and actual system usage behavior.

In relations to the study, lack of user acceptance is a significant impediment to the success of new information systems. In fact, users are often unwilling to use information systems which, if used, would result in improved performance especially in accounts management in public secondary schools.

### 3. RESEARCH METHODOLOGY

A descriptive research design was used in the study. Hoffman and Sandelands (2005), defined descriptive design as a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. The use of this method is effective to analyse non-quantified topics and issues, the possibility to observe the phenomenon in a completely natural and unchanged natural environment, the opportunity to integrate the qualitative and quantitative methods of data collection and less time-consuming than quantitative experiments. The choice of this design was appropriate for the study since it utilized a questionnaire as a tool of data collection and was used in ensuring data effectiveness of utilization of ICT on financial management in public secondary schools in Kericho County.

The study targeted 200 principals and 200 school accountants of all the public secondary schools in Kericho County, Kenya which translates to a target population of 400. Israel (2009) sample size formula was used to calculate the desired

sample size and a sample of 200 respondents was used for data analysis. Both simple random sampling and stratified sampling techniques will be used. This means that every individual within each stratum in the target population had an equal chance of being selected. According to Cooper and Schindler (2011), stratified sampling refers to the process of dividing the population into homogeneous sub-groups and the taking samples from each of those sub-groups (strata) for analysis. The sample population was stratified into two groups namely; principals and school accountants so as to enable the gathering of data and clustering of results. Simple random sampling was adopted because the population constituted a homogeneous group (Kothari 2009). Self-administered questionnaires was used for data collection.

The data of this study was analyzed using descriptive data analysis techniques such as frequency distribution tables, mean, and mode. The study also generate quantitative data since the study used numeric measures to evaluate the aspects under investigation. In quantitative analysis, data was statistically analyzed so that the meaning is inferred. Before analyzing the feedback from the respondents, the questionnaires were checked to ascertain if they were fully and accurately filled. The data was then coded and checked for errors and omissions. Quantitative data was analyzed using inferential statistics specifically correlation analysis, regression analysis and ANOVA test analysis. All data was analyzed at a level of significance of 95% or  $\alpha=0.05$  and the degrees of freedom depending on the particular case determined. This value ( $\alpha=0.05$ ) was chosen because the sample size was adopted from the figures calculated on the basis of 0.95 level of confidence.

The study adopted a multiple regression model for the estimation of the variables under investigation. The model is fundamental in giving the connections of the variables through pertinent coefficients. The model was as follows:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4 +\epsilon$$

Where: Y is the accounting information systems;  $\beta$  is the slope;  $\alpha$  is the constant or autonomous service delivery whereas, X being a set of Accounting information systems to be measured against service delivery;  $X_1$  as software use;  $X_2$  as staff competencies;  $X_3$  as internal control;  $X_4$  as capacity building and  $\epsilon$  is error term or residual value.

#### 4. RESEARCH FINDINGS AND DISCUSSIONS

The study objective was to establish the effect of software use in accounting information system on service delivery in public secondary schools in Kericho County. Respondents were asked to respond on the extent they agreed with the statements on accounting information system use and their responses were on a Likert scale were SA was Strongly Agree, A was Agree, U was Undecided, D was Disagree and SD was Strongly Disagree. Their responses are presented in Table 1.

**Table 1: Accounting Information Software Use on Service Delivery**

Accounting Information System	SD	D	U	A	SA
My school uses accounting software to receipt fee payment	20 (11.3%)	16 (9.0%)	7 (4.0%)	113 (63.8%)	21 (11.9%)
The school uses accounting software to record fee payment	19 (10.7%)	26 (14.7%)	5 (2.8%)	113 (63.8%)	14 (7.9%)
School accounting software is used to raise payment vouchers	35 (19.8%)	19 (10.7%)	7 (4.0%)	86 (48.6%)	30 (16.9%)
Accounting software used in our school generate financial reports effectively	39 (22.0%)	21 (11.9%)	7 (4.0%)	79 (44.6%)	31 (17.5%)
Our school accounting software provide good financial data storage	14 (7.9%)	35 (19.8%)	10 (5.6%)	81 (45.8%)	37 (20.9%)
Accounting software in use have enabled our school manage its finances well	27 (15.3%)	23 (13.0%)	7 (4.0%)	84 (47.5%)	36 (20.3%)
Technology is a challenge to most school fund managers	20 (11.3%)	23 (13.0%)	14 (7.9%)	83 (46.9%)	37 (20.9%)

**Source: Researcher (2021)**

Table 1 reveals that majority of respondents who were 113 representing 63.8% agreed together with 21 respondents representing 11.9% who strongly agree that their schools uses accounting software to receipt fee payment. Respondents who were 20 representing 11.3% strongly disagreed as well as 16 respondents representing 11.3% who disagreed that that

their schools uses accounting software to receipt fee payment. Respondents who were 7 representing 4.0% were undecided.

Majority of the secondary school uses accounting software to record fee payment. This was according to majority of the respondents who were 113 representing 63.8% who agreed together with 14 respondents representing 7.9% who strongly agreed to it. Respondents who were 26 representing 14.7% disagreed together with 19 respondents representing 10.7% who strongly disagreed that their secondary school uses accounting software to record fee payment while 5 respondents representing 2.8% were undecided.

School accounting software was used to raise payment vouchers. This was as per the response of majority of the respondents who were 86 representing 48.6% who agreed so do 30 respondents representing 16.9% who strongly agreed. Respondents who were 35 representing 19.8% strongly disagreed together with 19 respondents representing 10.7% who disagreed that school accounting software was used to raise payment vouchers. Respondents who were 7 representing 4.0% were undecided.

Majority of the respondents who were 79 representing 44.6% agreed as well as 31 respondents representing 17.5% strongly agreed that accounting software used in their school generate financial reports effectively.

Respondents who were 39 representing 22.0% strongly disagreed together with 21 respondents representing 11.9% disagreed while respondent who were 7 representing 4.0% was undecided.

Respondents who were 81 representing 45.8% agreed as well as 37 respondents representing 20.9% strongly agreed that school accounting software provide then with good financial data storage. Respondents who were 35 representing 19.8% disagreed as well as 14 respondents representing 7.9% strongly disagreed that school accounting software provide then with good financial data storage. Respondents who were 10 representing 5.6% were undecided.

Majority of respondent who were 84 representing 47.5% agreed together with 36 respondents representing 20.3% strongly agreed that accounting software in use in their school had enabled them manage their finances well. Respondents who were 27 representing 15.3% strongly disagreed so do 23 respondents representing 13.0% disagreed that accounting software in use in their school had enabled them manage their finances well. Respondents who were 7 representing 4.0% were undecided.

Technology is a challenge to most school fund managers since majority of respondents who were 83 representing 46.9% agreed together with 37 respondents representing 20.9% strongly agreed. Respondents who were 23 representing 13.0% disagreed together with 20 respondents representing 11.3% strongly disagreed while 14 respondents representing 7.9% were undecided.

This implies that schools uses accounting information software to receipt fee payment; record fees payments; raise payment vouchers; generate financial reports and provide good financial data storage. Accounting information system had enabled secondary school to manage its finances well but technology was a challenge to most school fund managers.

Accounting information system helped secondary school with decision making and service delivery since the schools uses accounting information software to; receipt fee payment; record fees payments; raise payment vouchers; generate financial reports and provide good financial data storage. This concurs with Victoria (2002), who asserts that accounting information "software has been developed to assist in service delivery through customized management information systems (MIS) used to enhance financial transactions in schools.

The findings concurs with Gbenga (2003), who noted that the use of financial software gives bursar good indication about the direction of the business for school and a means of comparing data with previous months, terms and years since the software had enabled secondary school to manages its finances well. Technology was a challenge to most school fund managers thus this had hindered them not offer better service as noted by Samer and Sambamurthy (2006), who contended that the absence of such systems in school may result in delays in decision making due to high cycle time in business transactions as well as poor utilization of accounting and other school resources and poor service delivery.

Coefficient of determination was generated to explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (service delivery) that is explained by all the four independent variables (accounting information software use, staff competency, internal controls, capacity building).

Table 2: Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	(Constant)	.702	.250		2.812 .005
	AISU	.315	.039	.435	8.072 .000

a. Dependent Variable: SD

#### Source: Researcher (2021)

From the findings in table 2, the study found that holding accounting information system use, constant, service delivery will be 0.702. The study also found that a unit increase in accounting information system use will increase in service delivery by 0.315. The findings shows that accounting information system use affect service delivery (T = 8.072,  $p < 0.05$ ).

### 5. SUMMARY, CONCLUSION AND RECOMMENDATION

The objective was to establish the effect of accounting information software use on service delivery in public secondary schools in Kericho County. The findings showed that schools uses accounting information software to receipt fee payment; record fees payments; raise payment vouchers; generate financial reports and provide good financial data storage. Accounting information software use had enabled secondary school to manage its finances well but technology was a challenge to most school fund managers. Therefore, the study recommends that Secondary schools need to adopt the use of accounting information software in its day to day operations, that there is need for training of staff on use of accounting information system so that they can easily reconcile records hence reduces on mismanagement of the school funds and that Secondary school need to organize capacity building programmes; training and seminars for accounting staff so as to have; competent, lean, effective, efficient and highly motivated workforce who will give quality service.

#### ACKNOWLEDGEMENT

I thank God for the gift of life during this work. Special thanks to my supervisors Dr. Willy Rugutt and Dr. Joseph K. Rotich for their unreserved advice and guidance in this work. I also thank all people who have assisted me in one way or another during my research.

#### CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

#### REFERENCES

- [1] Betley, J. N., Xu, S., Cao, Z. F. H., Gong, R., Magnus, C. J., Yu, Y., & Sternson, S. M. (2015). Neurons for hunger and thirst transmit a negative-valence teaching signal. *Nature*, 521(7551), 180-185.
- [2] Bruno, G. S. (2015). Estimation and inference in dynamic unbalanced panel-data models with a small number of individuals. *The Stata Journal*, 5(4), 473-500.
- [3] Cooper, D. R., Schindler, P. S., & Sun, J. (2011). *Business research methods* (Vol. 9, pp. 1-744). New York: Mcgraw-hill.
- [4] Damerau, F. J. (2013). Generating and evaluating domain-oriented multi-word terms from texts. *Information Processing & Management*, 29(4), 433-447.
- [5] Davis, F. (1996). A Critical assessment of potential measurement biases in the Technology Acceptance Model; three experiments. *International Journal of Human Computer studies*, 45(1), 14-45.
- [6] Gbenga, S. (2003). African Youth and the Information Society: What role does ICT play in the business.
- [7] Gelinas, U. J., Dull, R. B., & Wheeler, P. (2014). *Accounting information systems*. Cengage learning.
- [8] Hoffman, A. J., & Sandelands, L. E. (2005). Getting right with nature: Anthropocentrism, ecocentrism, and theocentrism. *Organization & Environment*, 18(2), 141-162.

- [9] Israel, G. D. (2009). Determining Sample Size, Institute of Food and Agricultural Sciences. *University of Florida*.
- [10] Kanungo, S., Duda, S., & Srinivas, Y. (1999). A structured model for evaluating information systems effectiveness. *Systems Research and Behavioral Science: The Official Journal of the International Federation for Systems Research*, 16(6), 495-518.
- [11] Kothari, C. R. (2009). *Quantitative Techniques (3rd Rev.)*.
- [12] Mancini, F., Dubbini, M., Gattelli, M., Stecchi, F., Fabbri, S., & Gabbianelli, G. (2015). Using unmanned aerial vehicles (UAV) for high-resolution reconstruction of topography: The structure from motion approach on coastal environments. *Remote sensing*, 5(12), 6880-6898.
- [13] MoE (2018), Government Policy on Financial Management of Public schools, Government Printers, Nairobi.
- [14] Passey, D. (1999). Strategic evaluation of the impacts on learning of educational technologies: Exploring some of the issues for evaluators and future evaluation audiences. *Education and Information Technologies*, 4(3), 221-248.
- [15] Samer, M., & Szeider, S. (2006, September). Constraint satisfaction with bounded treewidth revisited. In *International Conference on Principles and Practice of Constraint Programming* (pp. 499-513). Springer, Berlin, Heidelberg.
- [16] Shagari, S., Abdullah, A., & Mat Saat, R. (2015). Accounting information systems effectiveness: Evidence from the Nigerian banking sector. *Interdisciplinary Journal of Information, Knowledge, and Management*, 12, 309-335.
- [17] Van Akkeren, J., & Harker, D. (2003). The mobile internet and small business: an exploratory study of needs, uses and adoption with full-adopters of technology. *Journal of research and practice in Information Technology*, 35(3), 205-220.
- [18] Victoria, E. (2012). *Use of ICT for Financial Information*. Los Angeles: San Jose Inv.