

The Effect of Cash Management Systems on the Financial Accountability of Bungoma County Government, Kenya

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ABSTRACT

This study aimed to understand the impact of Cash Management Systems on financial accountability. The study used the theoretical framework of the Technology Acceptance Model (TAM) and the Resource-Based View (RBV) Theory. The descriptive research design was used. The target population consisted of 204 respondents who were representative of junior accountants, finance managers, senior accounting officers and departmental heads in different departments of County Government of Bungoma. Stratified and simple random sampling techniques were used to obtain respondents of 136. Structured questionnaires were used for data collection to gather primary data. A pilot study was carried out in Kakamega County to check the validity and reliability of the research instrument. The data were analysed descriptively, using frequencies, percentages, means and standard deviations, and inferentially with correlation and multiple regression analysis. Different normality, multicollinearity and heteroscedasticity diagnostic tests were carried out to ensure the suitability of the models. Ethical issues were adhered to throughout the study. The results indicated that cash management systems were all positively and statistically significant in determining the financial accountability of the CMSs ($B=0.089$ & $p=0.022$). The study found that the effective implementation of Cash Management Systems play a significant role in enhancing financial accountability in the County Government of Bungoma. The study advises to strengthen the cash management system, budgetary controls, financial reporting system, and implement proper record keeping techniques with continued staff training to optimize utilization of the CAM and accountability results.

Keywords: Cash Management Systems, financial accountability, Technology Acceptance Model, and Resource-Based View Theory

Background of the Study

Financial accountability remains a central tenet in enhancing transparency, efficiency, and credibility in the management of public funds. In the public sector, particularly within decentralized governance systems, accountability ensure that financial resources are spent as intended and that those responsible for managing public funds are accountable for their decisions and actions (Kassim & Abdalla, 2022). Yet, in many developing countries, financial accountability challenges continue to manifest in the form of delayed financial reporting, misappropriation of funds, weak audit trails, and poor expenditure tracking (OAG, 2023). This calls for a critical examination of systems and practices capable of enhancing financial accountability—chief among them being Accounting Information Systems (AIS).

In India, considerable strides have been made by the government in enhancing financial accountability through its Public Financial Management System (PFMS), which integrates various components of AIS including cash management, real-time tracking of expenditures, and direct benefit transfers (Sharma & Gupta, 2021). The system enables digital payments as well as accounting for all government transactions, enhancing transparency and minimizing leakages. Studies show that PFMS has not only resulted in more transparent finances but has also made public officials more accountable, particularly in state and

municipal governments (Kumar & Singh, 2023). However, challenges such as infrastructural gaps and user competency persist, especially in rural areas.

In Nigeria, despite the presence of the Integrated Financial Management Information System (IFMIS), issues of financial mismanagement and weak accountability mechanisms continue to plague state and local governments. Research by Oladipo and Adebayo (2022) found that although AIS has been adopted, poor implementation, corruption, and lack of skilled personnel significantly limit its impact. The Nigerian experience highlights the importance of not just adopting systems, but ensuring operational effectiveness and institutional support for improved financial accountability.

South Africa, in contrast, has made notable progress in leveraging AIS to strengthen financial performance in provincial and municipal governments. Systems like the Municipal Standard Chart of Accounts (MSCOA) promote uniform financial reporting and enhance audit readiness (Pillay, 2021). Additionally, the country's commitment to open data and regular performance audits contributes to higher levels of transparency and financial integrity. South Africa's case underlines how a legal and regulatory framework, supported by technology, can boost financial accountability across decentralized governance units.

In Rwanda, the government's digitization of financial systems under the Smart Rwanda Master Plan has had positive impacts on financial accountability. Tools like the IFMIS and e-Procurement platforms allow for real-time tracking of government transactions (Munyaneza & Uwizeyimana, 2022). These reforms have positioned Rwanda as a model of fiscal discipline in the region. Their success has been supported by strong leadership, regular monitoring, and continuous training of financial officers.

In Kenya, the national government introduced the IFMIS to support planning, budgeting, procurement, and payment processes across government entities. County governments were expected to adopt IFMIS and related AIS tools to enhance financial accountability and eliminate wastage (National Treasury, 2023). However, the rollout and utilization of these systems is inconsistent across counties, with many still experiencing audit issues related to unsupported expenditures, poor record-keeping and inconsistent financial reports (OAG, 2023).

The County Government of Bungoma, in particular, has been flagged multiple times by the Auditor General for financial anomalies, including pending bills, lack of documentation, and poor revenue tracking mechanisms (OAG, 2023). Although Bungoma County has attempted to digitize its financial operations through systems like IFMIS, revenue collection automation, and e-procurement, these initiatives have fallen short in translating into improved financial performance or accountability. Key AIS components such as cash management systems remain underutilized, budget implementation is poorly monitored, and record-keeping practices are largely manual or fragmented (Wamalwa & Kibisu, 2024).

Using AIS as an independent variable, Omondi (2020) the role of FMP on Financial Accountability in County Governments of Kenya examined multiple components of cash management systems, specifically focusing on expense tracking and accounts receivable/payable management as independent variables, and financial accountability as the dependent variable. The research adopted a mixed-methods approach, combining descriptive survey and correlational analysis to gather both qualitative and quantitative data from finance officers in five counties. The study found that automated expense tracking systems contributed significantly to improved expenditure monitoring, reduced misuse of public funds, and timely financial reporting.

Kariuki (2021) researched on the influence of financial reporting practices on Financial Accountability in Devolved Units in Kenya investigated how reporting cycles and the completeness and accuracy of financial reports affect financial accountability in county governments. Structured questionnaires distributed to accountants and finance officers across six counties. The independent variables were the frequency and consistency of reporting cycles besides financial reporting quality (completeness and accuracy), while financial accountability accounted for dependent variable. Results demonstrated that counties with regular and well-adhered-to reporting cycles were more likely to produce timely and reliable financial reports, which in turn increased transparency and responsiveness.

Wafula and Chebet (2021) conducted research titled Budget Implementation Systems and Their Impact on Financial Accountability in County Governments, which focused on error rate reduction and KPI monitoring as core elements of effective budget execution. Utilizing a correlational research design, the study sourced quantitative information from financial records alongside qualitative information gathered by interviews with finance officers in four counties. The independent variables included the reduction of budgeting and reporting errors through system checks, and the application of KPIs to evaluate departmental budget implementation. The findings showed that counties with systems aimed at minimizing human and procedural errors in budget execution had fewer audit flags and more consistent financial records.

Limo (2021) on the effect of Record-Keeping Practices on Financial Accountability in Public Sector Institutions in Kenya examined the role of accuracy of financial records and timeliness of record updates in promoting financial accountability. Using descriptive research design, the study collected data from finance and accounts officers across various government departments. The independent variables were accuracy in maintaining financial documents (including ledgers, vouchers, and receipts) and the promptness in updating financial records. The findings indicated that institutions that prioritized timely updates of their records experienced fewer instances of financial misstatements and were better prepared for audits.

This persistent problem of feeble financial accountability in Bungoma County Government necessitates an enquiry into the effectiveness of accounting information systems in improving public financial performance. While the systems are in place, their implementation, integration, and utilization at the county level may be the missing link. Therefore, this study sought to examine degree to which AIS specifically cash management systems, financial reporting systems, budgetary control mechanisms, and record-keeping systems—impact the financial performance of the Bungoma County Government.

Statement of the Problem

Bungoma County Government's painstaking financial management problems are deep-rooted and continuing to compromise fiscal integrity and public accountability. The Auditor General's Report (2022) revealed that there was a difference of Ksh.349,519,836 between IFMIS and the County's books of accounts. Also, report pointed out that there were deficiencies in management of bank accounts, such as 26 bank accounts being closed without an explanation and a lack of remittance of Ksh.530,243,870 in collected funds. The results suggest opportunities for misappropriation and fraud, which are compounded by the use of a large wage bill that is more than 35% of the legal limit established under the Public Finance Management Act (Republic of Kenya, 2012). Bungoma County has Ksh.1.2 billion of unpaid bills from which it has to fund some essential development projects and still provide timely public services (Office of the Auditor General, 2023).

The consistent differences illustrate structural and systemic issues in the county's financial management processes, including budgeting, cash flow tracking, record-keeping, and reporting. Even though IFMIS has been implemented as a national policy of strengthening financial transparency, Bungoma County still had audit enquiries, which demonstrates that there is no effective integration and internal capacities. Mutua (2021) and Wanyama & Kimeli (2022) studies indicate that weak implementation of Accounting Information Systems (AIS), coupled with weak monitoring and weak processes, has a considerable impact on decreasing accountability in devolved units in Kenya. It means that these weaknesses were reiterated in the audit report for 2023 and that it is necessary to make technological changes and train personnel so as to strengthen fiscal discipline and regain public trust.

This study aimed at investigating the impact of implementing AIS in Cash management on the financial performance of Bungoma County Government. The research intends to present policy recommendations that foster accountability, optimize the use of resources, and deliver services at the county level by recognizing operational gaps and understanding how AIS implementation will affect them.

Objective of the study

To investigate the effect of cash management systems on the financial accountability of Bungoma County Government, Kenya.

Research Hypothesis

H₀₁: Cash management systems are not statistically significantly linked with financial accountability in Bungoma County Government, Kenya.

Theoretical framework.

Technology Acceptance Model (TAM)

Original by John W. Meyer and Brian Rowan (1977) authored this theory. The theory was later extended by theorists like DiMaggio and Powell (1983), who argued that organizations may choose to adopt some structure, practice, or technology not just because it is efficient or functional, but because it is the "right thing to do" in response to institutional pressures like government regulations, professional norms, and public expectations.

In public sector organizations such as Bungoma County Government, Institutional theory is important in explaining the adoption and implementation of Accounting Information Systems (AIS). The theory is that the county government can use AIS, not only to improve efficiency in the county, but also to meet national requirements like the Public Finance Management Act (2012), National Treasury requirements and the requirements of the Office of the Auditor General. These external forces are constraints applied to county governments that force them to conform to given criteria of financial and technological standards to sustain their legitimacy, budgetary approval and public confidence.

Furthermore, theory gives a rather passive role to the organizations in answering the external demands. In practice, however, organizations can actively negotiate, reinterpret, or defy institutional pressures, particularly when external pressures aren't compatible with internal structure and experience (Battilana & D'Aunno, 2009). This is especially pertinent in counties like Bungoma where weak leadership, capacity limitations, and political interference create an impediment to the smooth roll-out and institutionalization of AIS.

Resource-Based View (RBV) Theory

According to the Resource-Based View (RBV) of Jay Barney (1991), the key to competitive advantage and competitive sustainability is to look at the internal resources of the organization. The theory suggests that resources should be valuable, rare, inimitable, and non-substitutable (VRIN) to be of strategic value over the long term (Wernerfelt, 1984; Barney, 1991). In the context of AIS, these resources can come in the form of qualified staff, strong ICT infrastructure, leadership, and a culture of innovation and accountability.

The RBV theory applies in Bungoma County Government, where internal capacities have an impact on the effectiveness of AIS. The introduction of AIS is not enough; the county should also have the human and technical resources to support the AIS (Wade & Hulland 2004). Enlistment of trained accountants, IT professionals, and proactive leadership, for example, may have a significant impact on the extent to which the AIS is integrated in financial processes.

Empirical Literature Review

Martinez and Garcia (2021) explored the effect of Cash Management Systems (CMS) on working capital management, three aspects of which included cash conversion cycles, liquidity ratios, and operational efficiency. They conducted their research in sectors where efficient working capital management is vital, such as manufacturing and retail. The goal of the study was to assess the effects of the CMS program on

financial indicators and performance. The researchers adopted stratified sampling and random sampling techniques in a quantitative research design to select the participating firms that have adopted CMS. The relationship between CMS and financial metrics was examined by regression analysis, and changes over time were examined by comparative methods. The findings showed that adoption of CMS have a statistically significant impact on cash conversion cycles, liquidity ratios and operational efficiency, thereby proving that the implementation of CMS improves working capital management and financial performance.

To explore the connection between CMS and financial flexibility, Thompson and Arnold (2022) carried out a study in the United States looking at how much cash reserve and investment opportunity a firm has. They were looking at industries such as technology and pharmaceuticals and were trying to assess what they could do to increase the capacity of a company to respond to investment opportunities and risks through increased cash reserves by CMS. A quantitative research design was employed and stratified sampling was employed to select those firms that recently adopted CMS. A comparative analysis and regression analysis were used to compare advanced implementation of the CMS with less advanced implementations. The findings demonstrated that firms with effective CMS had higher levels of cash reserves and were better able to capitalise on financial opportunities and risks, leading to increased financial flexibility.

Kumar and Sharma (2022) evaluated the performance of CMS technologies in multinational companies, highlighting the use of ERP systems and machine learning. The goal of the research was to assess the effectiveness of these technologies in improving financial processes and minimizing manual cash handling expenses. This study included 100 multinational corporations in a mixed-methods research design, with quantitative data analysis and qualitative case studies. The effects of ERP and machine learning on cash management efficiency were quantified using regression analysis, and challenges were identified in the implementation using thematic analysis. The findings showed how ERP systems and machine learning can enhance cash management efficiency, optimize financial processes, and minimize the need for manual handling, making a notable impact for multinational corporations.

Mwangi and Otieno (2022) studied the implementation of CMS in Kenyan microfinance institutions, specifically on loan processing time, cash flow management and customers' satisfaction. They set out to measure the impact CMS has on their institutions' operational efficiency and their customer experience. A purposive sampling of 50 microfinance institutions was used for the study. The method used by the researchers was quantitative research and the techniques used was regression analysis and descriptive statistics. Findings showed that the introduction of CMS helped improve cash flow management and also cut down the time it took to process loans, but the integration of the system and staff training presented a challenge in getting the most out of it.

Conceptual Framework

Financial Accountability

- Efficient cash management.
- True and fair financial statements.
- Standard Operating Procedures.

Independent Variables

Dependent Variable

Source: Researcher (2025)

RESEARCH METHODOLOGY

The study design was descriptive research, which involved primary quantitative data to study the relations between Accounting Information Systems (AIS) and the financial performance of Bungoma County

Government. The study was conducted on a few quantitative financial indicators, including budget margins, working capital management, budget adherence, and cost reduction. The research sample consisted of 204 respondents, which provided a good representation of sections responsible for financial operations. The stratified sampling technique was used, where the sample population was divided into distinct subgroups or strata based on job level, then a random sample is taken from each stratum proportionally or equally. This method ensured that each subgroup is fairly represented in the sample, leading to more accurate and reliable results, especially when subgroups differ significantly. Slovin's formula was utilized in sample determination, which is commonly used when the population is large and it is impractical to collect data from everyone.

RESULTS AND DISCUSSIONS

Table 1: Descriptive Statistics of cash management systems

	N	Mean	Std. Deviation
The Accounting Information System facilitates effective monitoring and management of cash transactions in the county government.	121	4.3471	1.29557
Computerized cash management systems enhance accuracy in recording cash receipts and payments	121	4.2066	1.13957
Digital cash management controls within the Accounting Information System help prevent fraud and misuse of public funds	121	4.0744	1.00138
Cash management techniques are crucial for the success of County government operations	121	4.2975	1.13758
The Accounting Information System improves transparency in handling public funds	121	4.4463	1.15434
The Accounting Information System enables timely reconciliation of cash balances, ensuring accuracy and accountability in cash management processes	121	4.2479	1.01062
Staffs are adequately trained to use computerized cash management systems effectively	121	4.2397	.89466
Valid N (listwise)	121		

Source: Field Data (2026)

The study was limited to cash management systems, which are systems used in county governments to monitor, control, and manage cash transactions. This variable was explored to quantify the impact of the use of computerised cash management on public funds accountability, accuracy and efficiency. Table 1 displays the mean and standard deviation values for the statements in the table below, representing the extent to which the respondents agreed.

The results indicated that the Accounting Information System (AIS) helps to monitor and manage cash transactions in the county government, as shown by a mean of 4.3471 and a standard deviation of 1.29557. The study thus concluded that AIS is useful for monitoring cash flows, as it provides greater visibility and control over cash flows, helps prevent cash leakages and misappropriation, and enhances financial oversight. This is in line with the findings by Mwangi and Otieno (2022), who found that cash management not only benefits the organization in terms of cash flow management but also enhances the efficiency of the organization's operations. The results support RBV theory in that AIS becomes a valuable internal resource that enhances the capability of financial management. In addition, it is consistent with the institutional theory, which focuses on the need for monitoring mechanisms to satisfy the audit as well as the regulatory requirements.

Computerized cash management systems seem to enhance accuracy in recording cash receipts and payments, as represented by a mean of 4.2066 and a standard deviation of 1.13957. This suggests

respondents are in agreement that automation enhances the accuracy of records. The findings are consistent with that of Kumar and Sharma (2022) who found that ERP-based systems actually minimized manual handling errors. It demonstrates automation's ability to reduce human errors and data inconsistencies. Similarly, computerization also provides better reliability of financial information, a critical factor for the audit. The results are also consistent with the TAM and RBV theories, high agreement is an indication of perceived usefulness of the system and accurate data becomes a strategic asset in the organization in the decision-making process respectively.

The study results showed that the mean of digital cash management controls on the Accounting Information System is 4.0744, and the standard deviation is 1.00138, which meant that digital cash management controls in the Accounting Information System could be beneficial in the prevention of fraud and misuse of public funds. The high standard deviation indicates that there are likely controls in place, but they may not be fully reliable or even be reliably implemented, which could imply that there are security or oversight issues in the system. In Nigeria, Odipo and Adebayo pointed out that there may be systems in place, but the implementation may be very weak, which may not allow for good fraud control.

Effective cash management practices are essential to the effective operation of County government. This was reflected by a mean of 4.2975 and a standard deviation of 1.13758, representing a high level of awareness and recognition of the importance of cash management techniques as an important component of county government. The findings corroborate Omondi (2020), who concluded that cash tracking is an aid to expenditure control in the organization. Careful cash management is thus a key organisational competence that can be linked to the RBV theory.

The study further revealed that the accounting information system improves transparency in handling public funds, as shown with a mean of 4.4463 and a standard deviation of 1.15434. Transparency plays an essential role in combating corruption, in building trust, and is also key in public sector accountability. The findings align with the results of Thomson and Arnold (2022), which indicated that companies that performed well with CMS had more cash in hand and were better able to act on financial opportunities and threats, thus improving their overall financial flexibility. It was found that the accounting information system can reconcile the cash balance in time, which is reflected in the average value of 4.2479 and the standard deviation of 1.01062. Reconciling when it is appropriate can aid in the early identification of discrepancies and enhance the reliability of financial reporting. This corresponds with the idea of Kariuki (2021) that effective financial processes are essential in enhancing accountability.

The study also found a mean of 4.2397 with a standard deviation of 0.89466, indicating that staff can effectively use computerized cash management systems. This means that, there is capacity building and technical support in the finance department which improves the effective use of AIS. The results, however, differ from what Mwangi and Otieno (2022) found, where they identified training gaps as one of the challenges faced by county governments.

Test for autocorrelation

Table 2: Autocorrelation

Model Summary ^b	
Model	Durbin-Watson
1	1.85 ^a

Source: Field Data (2026)

Autocorrelation refers to a situation in regression analysis where residuals are correlated with one another, violating the assumption of independence of errors. Durbin-Watson statistic was used to determine the level of autocorrelation. This is done to determine whether residuals are independent from each other. The Durbin-Watson value was 1.85. All the results were in the range of 1.5 to 2.5, suggesting that there was no

significant autocorrelation problem. This indicates that the errors are likely due to random chance rather than systematic patterns, which is important in ensuring valid statistical inferences.

Regression Analysis

Table 3: Regression Analysis

Model	R	R Square	Adjusted R Square	Std Error
1	0.971	0.942	0.940	0.328

Source: Field Data (2026)

The model summary results showed an R Square of 0.942, indicating that 94.2% of the variation in financial accountability is explained by Accounting Information Systems, specifically cash management systems. This demonstrates a strong overall relationship between AIS and financial accountability, supported by a high R value of 0.971. The adjusted R Square of 0.940 further confirms that the model is highly reliable even after accounting for the number of predictors included. The remaining 5.8% of variation in financial accountability is attributed to other factors not captured in the model.

Anova

Analysis of Variance (ANOVA) is a statistical technique used to determine whether a regression model is statistically significant by testing the overall relationship between the independent and dependent variables. It helps to establish whether the model provides a better fit to the data compared to a model with no predictors.

Table 4: Anova

Model	Sum of Square	Df	Mean Square	F	Sig
Regression	51.248	4	12.812	473.10	0.000
Residual	3.142	116	0.027		
Total	54.390	120			

Source: Field Data (2026)

The ANOVA results in Table 4 shows that the regression model is statistically significant ($P = 0.000$), indicating that the independent variables jointly have a significant effect on financial accountability. The study recorded an F-statistic of 473.10, confirming that the model provides a strong fit to the data and effectively explains the observed relationships. This demonstrates that the model is robust and can be reliably used to predict financial accountability based on Accounting Information Systems.

Coefficients

Regression coefficients are statistical values that show the direction and magnitude of the relationship between independent variables and the dependent variable. They are used to determine how much the dependent variable changes when each independent variable changes, while holding other variables constant.

Table 5: Coefficients

Variable	B	Std. Error	Beta	T	Sig
Constant	0.507	0.105	-	4.838	0.000
CMS	0.089	0.038	0.091	2.324	0.022

$$Y = 0.507 + 0.089 X_1 + \varepsilon$$

Regression results indicated a positive coefficient (0.089) on cash management systems. The cash management systems equally recorded a positive and statistically significant effect ($p=0.022$ which is less than 0.05) on financial accountability. This is an indication that better cash handling and monitoring practices improve the level of transparency and control in the organization. This finding is in line with Mwangi and Otieno (2022), who noted that efficient cash management systems improve financial performance and accountability in public sector organizations.

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