

The Influence Of Electronic System Management On Organizational Management Of Nansana Municipality

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Abstract

The study investigated the influence of electronic system management on organizational management at Nansana Municipality in Wakiso District, Uganda. The research employed a cross-sectional survey design with a sample of 95 respondents including municipal staff, departmental heads, and council members. Data was collected through structured questionnaires and document review, then analyzed using descriptive and inferential statistics. Results revealed a strong positive correlation ($r = 0.758$, $p < 0.01$) between electronic system management and organizational management effectiveness. The findings indicated that electronic system implementation improved operational efficiency by 47%, enhanced decision-making quality by 52%, reduced service delivery time by 41%, and increased transparency and accountability by 56%. Regression analysis demonstrated that electronic system management accounted for 57.5% of the variance in organizational management performance. The study concluded that effective electronic system management significantly enhanced organizational management through streamlined workflows, improved information accessibility, and enhanced coordination between departments, reduced operational costs, and better resource allocation. It was recommended that Nansana Municipality should invest in comprehensive integrated management systems, implement robust cybersecurity measures, conduct regular staff training on electronic systems, establish a dedicated IT department, upgrade ICT infrastructure, develop clear electronic system policies and procedures, ensure regular system maintenance and updates, and foster a digital culture among employees. The study also recommended continuous monitoring and evaluation of electronic systems to ensure alignment with organizational objectives.

Keywords: Electronic System Management, Organizational Management, Local Government, Nansana Municipality, Digital Transformation, E-Government, Service Delivery

1.0 Introduction

1.1 Background of the Study

The transformation of public sector management through electronic systems represented one of the most significant administrative innovations of the 21st century (Gracious, 2023). Globally, governments at all levels increasingly adopted digital technologies to enhance organizational efficiency, improve service delivery, promote transparency, and strengthen accountability (Christopher, Muhindo, et al., 2022). Electronic system management, encompassing the implementation and utilization of information and communication technology (ICT) systems for organizational operations, fundamentally altered traditional bureaucratic processes characterized by paper-based documentation, manual workflows, and hierarchical communication channels (Promise et al., 2024).

In Uganda, the pursuit of modernized local government administration gained momentum following the decentralization policy initiated in the 1990s, which transferred significant administrative and fiscal responsibilities to local governments (Paul et al., 2023). The Local Governments Act of 1997 empowered municipalities and district councils to manage service delivery, revenue collection, planning, and community development within their jurisdictions (Ntirandekura & Christopher, 2022). However, these expanded responsibilities exposed capacity limitations in traditional administrative systems, including inefficient record management, delayed decision-making, corruption vulnerabilities, and poor inter-departmental coordination (Julius & Nancy, 2025a). The recognition of these challenges prompted the Government of Uganda to prioritize e-government initiatives as articulated in the National ICT Policy and the Public Sector ICT Strategy (Paul et al., 2023).

Electronic system management in local government contexts encompassed multiple dimensions including financial management systems for budgeting and accounting, human resource management information systems for personnel administration, geographic information systems for land management and urban planning, revenue management systems for local tax collection, document management systems for record-keeping, and communication platforms for internal coordination and citizen engagement (Annet et al., 2023). When effectively implemented and managed, these systems promised to revolutionize organizational management by automating routine tasks, enabling data-driven decision-making, facilitating real-time monitoring, and creating audit trails that deterred misconduct (Akankwasa et al., 2022).

Nansana Municipality, established in 2020 following elevation from town council status, represented one of Uganda's emerging urban centers within the greater Kampala metropolitan area. Located in Wakiso District approximately 10 kilometers northwest of Kampala, Nansana experienced rapid urbanization driven by population spillover from the capital city (Jackline et al., 2023). The municipality covered an area of approximately 20 square kilometers with a population estimated at 150,000 residents engaged in diverse economic activities including trade, services, manufacturing, and agriculture. The administrative structure comprised five divisions, each with elected local councils, and functional departments responsible for finance, planning, health, education, community services, and engineering (Christopher, Komunda, et al., 2022).

As a newly constituted municipality, Nansana faced the dual challenge of establishing effective administrative systems while meeting rising citizen expectations for quality service delivery. The municipality inherited legacy paper-based systems from its town council predecessor, characterized by manual revenue collection receipts, physical file management, and limited inter-departmental information sharing (Amos et al., 2024). These traditional systems proved inadequate for managing the complexity and scale of municipal operations, contributing to revenue leakages estimated at 40% of potential collections, service delivery delays averaging 3-4 weeks for routine transactions, and limited capacity for evidence-based planning and monitoring (Alex et al., 2023).

In response to these challenges, Nansana Municipality initiated electronic system implementation beginning in 2021, including the deployment of an electronic revenue management system, computerized financial management system,

and digital document registry (Alex & Julius, 2024). However, the transition from manual to electronic systems encountered multiple obstacles including inadequate ICT infrastructure, limited staff digital literacy, resistance to change from employees accustomed to traditional methods, insufficient technical support, and budgetary constraints that prevented comprehensive system integration (Muhamad et al., 2023).

Organizational management theory posited that the effectiveness of any administrative system depended on its ability to facilitate planning, organizing, leading, and controlling organizational resources toward defined objectives (Winny et al., 2023). Electronic systems theoretically enhanced these management functions by providing timely information for planning decisions, enabling flexible organizational structures through networked communication, supporting leadership through performance dashboards and analytics, and strengthening control through automated monitoring and reporting (Wegulo et al., 2023). However, the actual influence of electronic systems on organizational management outcomes depended on factors including system design quality, implementation fidelity, user acceptance and competency, technical reliability, and alignment with organizational processes (Faith et al., 2023).

Despite the theoretical promise and policy emphasis on electronic governance, empirical evidence on the actual influence of electronic system management on organizational effectiveness in Uganda's local government context remained limited (Sarah & Audrey, 2024). While international studies documented benefits in developed country settings, the unique challenges of resource-constrained municipalities in developing economies, including infrastructure limitations, capacity gaps, and institutional factors, necessitated context-specific research (Julius & Kazaara, 2025b). This study therefore examined the influence of electronic system management on organizational management at Nansana Municipality, providing evidence to inform digital transformation strategies in Uganda's emerging urban local governments.

1.2 Statement of the Problem

Nansana Municipality experienced significant organizational management challenges that undermined its capacity to effectively deliver services to its growing urban population (Julius & Kazaara, 2025a). Internal audit reports indicated that administrative inefficiencies resulted in average processing times of 28 days for routine transactions that should require only 3-5 days, contributing to citizen dissatisfaction rates of 67% according to a 2022 community perception survey (Wegulo et al., 2023). Revenue collection performance remained poor, with actual collections reaching only 58% of assessed potential, substantially below the national municipal average of 75% (Amos et al., 2024). This revenue gap constrained the municipality's ability to finance essential services and infrastructure development.

Manual administrative systems contributed significantly to these performance deficiencies. The municipality's reliance on paper-based record-keeping resulted in frequent document loss, with approximately 15% of files reportedly missing or misplaced (K. Moses et al., 2023). Inter-departmental coordination suffered due to limited information sharing, with departments operating in silos that prevented integrated service delivery (Christopher, Muhindo, et al., 2022). Financial accountability remained weak, with quarterly financial reports consistently delayed by 6-8 weeks

beyond statutory deadlines due to manual consolidation processes. These systemic inefficiencies created opportunities for corruption and revenue leakage, undermining public trust in municipal governance (Julius & Nancy, 2025a).

Since 2021, Nansana Municipality invested approximately UGX 450 million in electronic systems including revenue management software, financial management systems, and computer hardware. However, the impact of these investments on organizational management effectiveness remained unclear (Promise et al., 2024). Anecdotal observations suggested uneven system utilization across departments, with some units continuing to maintain parallel manual systems despite electronic alternatives. Staff frequently cited technical challenges, insufficient training, and system reliability concerns as barriers to full electronic system adoption (Ntirandekura et al., 2022). Municipal leadership lacked systematic evidence on whether electronic system investments were achieving intended improvements in organizational management, making it difficult to justify further digitalization expenditures or address implementation barriers strategically (Julius & Matovu, 2025).

There existed a critical knowledge gap regarding the nature and extent of electronic system management's influence on organizational management outcomes at Nansana Municipality (N. Moses & Nancy, 2024). Specifically, it remained unclear which organizational management dimensions were most significantly affected by electronic systems, what barriers prevented optimal system utilization, and what implementation factors determined whether electronic systems translated into actual organizational improvements (Christopher, Moses, et al., 2022). Without this evidence, municipal management could not develop targeted strategies to maximize returns on digital investments, address critical adoption barriers, or make informed decisions regarding future system expansions (Derrick et al., 2023). This study therefore investigated the influence of electronic system management on organizational management at Nansana Municipality to provide evidence-based insights for enhancing local government effectiveness through strategic digital transformation.

1.3 Objective of the Study

To examine the influence of electronic system management on organizational management of Nansana Municipality.

2.0 Methodology

2.1 Research Design

This study employed a descriptive cross-sectional survey research design to examine the influence of electronic system management on organizational management at Nansana Municipality. The cross-sectional approach enabled the researcher to collect data from respondents at a single point in time, capturing current perceptions and experiences regarding electronic systems and organizational management (Nafiu, 2012). The descriptive nature allowed for comprehensive documentation of the phenomena under investigation, while the survey method facilitated collection of standardized data suitable for statistical analysis. This design was appropriate for establishing relationships between variables and generating quantifiable evidence on the influence of electronic system management on organizational outcomes.

2.2 Study Population and Sample Size

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The target population comprised all employees and elected officials of Nansana Municipality who were directly involved in or affected by electronic system management and organizational operations (Olanrewaju et al., 2021). This included the municipal leadership (mayor, town clerk, and deputy town clerk), heads of departments (finance, planning, engineering, health, education, community services, and administration), middle management officers, technical staff, support staff, and elected council members. According to municipal human resource records, the total population was 127 employees and council members (Rasheed et al., 2022). Using Krejcie and Morgan's sample size determination table, a sample of 95 respondents was selected, representing approximately 75% of the population. This sample size was adequate for achieving statistical validity while remaining manageable within the study's resource and time constraints.

2.3 Sampling Technique

Stratified random sampling was employed to ensure representation across different organizational levels and functional departments. The study population was stratified into five categories: senior management (town clerk, deputy town clerk, and departmental heads), middle management (unit heads and principal officers), technical staff (specialists and program officers), support staff (clerical and administrative assistants), and council members (elected councilors) (Lanlege et al., 2013). Proportionate allocation determined the number of respondents from each stratum based on group size. Within each stratum, simple random sampling was used to select individual participants from the municipal staff register. This approach ensured that perspectives from all organizational levels and functional areas were captured, enhancing the representativeness and generalizability of findings.

2.4 Data Collection Instruments

Primary data was collected using a structured questionnaire comprising four sections. Section A captured demographic and employment characteristics including age, gender, education level, position, department, and length of service. Section B assessed electronic system management dimensions including system availability, functionality, user-friendliness, reliability, technical support, and staff capacity (Nafiu et al., 2017). Section C measured organizational management effectiveness across dimensions of operational efficiency, decision-making quality, coordination, transparency and accountability, and service delivery. Section D explored challenges and perceptions regarding electronic system implementation. Items in Sections B and C utilized a five-point Likert scale ranging from 1 (Strongly Disagree/Very Poor) to 5 (Strongly Agree/Excellent). Secondary data was obtained through review of municipal documents including strategic plans, audit reports, financial statements, ICT policies, and performance reports covering the period 2019-2023.

2.5 Validity and Reliability

Content validity was established through expert review by three public administration specialists and two information systems experts who assessed the instrument's comprehensiveness and relevance. Their feedback informed refinement of questionnaire items to ensure adequate coverage of study constructs. A pilot study was conducted with 12 staff members from neighboring Kira Municipality to test instrument clarity and reliability. Cronbach's Alpha coefficients

were computed for electronic system management items ($\alpha = 0.91$) and organizational management items ($\alpha = 0.87$), both exceeding the threshold of 0.70, confirming good internal consistency and reliability of the measurement scales.

2.6 Data Collection Procedure

Prior to data collection, ethical clearance was obtained from the institutional ethics committee, and formal permission was secured from Nansana Municipality through the town clerk's office. Respondents received advance notification through official memoranda explaining the study's purpose, voluntary participation, and confidentiality assurances. Data collection took place over three weeks during September 2023 (Julius, 2025). The researcher and two trained research assistants administered questionnaires at the municipal headquarters, allowing respondents to complete instruments during work hours. For respondents in field locations, appointments were scheduled to administer questionnaires at their respective offices. Completed questionnaires were checked for completeness and clarity before acceptance. Document review was conducted at the municipal records office with permission from relevant custodians.

2.7 Data Analysis

Quantitative data from questionnaires was coded and entered into Statistical Package for Social Sciences (SPSS) version 26 for analysis (Nelson et al., 2022). Data cleaning procedures identified and addressed missing values, outliers, and inconsistencies. Descriptive statistics including frequencies, percentages, means, and standard deviations summarized respondent characteristics, electronic system management status, and organizational management levels. Pearson correlation analysis examined the relationship between electronic system management and organizational management. Simple linear regression determined the extent to which electronic system management predicted organizational management effectiveness. Independent samples t-tests and ANOVA assessed differences across demographic groups and organizational units (Nelson et al., 2023). Qualitative data from document review was analyzed thematically to triangulate quantitative findings. The significance level was set at 0.05. Results were presented in tables with detailed narrative interpretations providing actionable insights.

3.0 Results and Discussion

3.1 Response Rate and Demographic Characteristics

Out of 95 questionnaires distributed, 89 were properly completed and returned, yielding a response rate of 93.7%. This high response rate enhanced the reliability and validity of the study findings.

Table 1: Demographic and Employment Characteristics of Respondents (N=89)

Characteristic	Category	Frequency	Percentage
Gender	Male	56	62.9%
	Female	33	37.1%
Age Group	25-35 years	32	36.0%
	36-45 years	38	42.7%

	46-55 years	15	16.9%
	Above 55 years	4	4.5%
Education Level	Certificate	8	9.0%
	Diploma	27	30.3%
	Bachelor's Degree	42	47.2%
	Master's Degree	12	13.5%
Position Level	Senior Management	9	10.1%
	Middle Management	21	23.6%
	Technical Staff	35	39.3%
	Support Staff	18	20.2%
	Council Members	6	6.7%
Length of Service	Less than 2 years	28	31.5%
	2-5 years	36	40.4%
	6-10 years	19	21.3%
	Above 10 years	6	6.7%
Department	Finance	15	16.9%
	Planning	12	13.5%
	Engineering	13	14.6%
	Health	11	12.4%
	Education	9	10.1%
	Administration	16	18.0%
	Community Services	13	14.6%

Source: Primary Data, 2024

The demographic analysis revealed a male-dominated workforce with 62.9% male and 37.1% female respondents, reflecting gender imbalances common in Ugandan local government employment. The majority of respondents fell within the 36-45 age bracket (42.7%), followed by the 25-35 age range (36.0%), indicating a relatively young and potentially technology-adaptable workforce. Only 4.5% were above 55 years, suggesting limited concerns about technology resistance from older employees approaching retirement.

Educational qualifications were generally high, with 47.2% holding bachelor's degrees and 13.5% possessing master's degrees. This educational profile indicated a knowledgeable workforce theoretically capable of utilizing sophisticated electronic systems, though formal education did not necessarily translate to practical ICT competency. The 30.3% with diplomas and 9.0% with certificates represented support and technical cadres where computer literacy might be more variable (Alex & Julius, 2024).

Position distribution showed that technical staff constituted the largest group (39.3%), followed by middle management (23.6%) and support staff (20.2%). Senior management comprised 10.1% while council members represented 6.7%. This distribution was typical of local government organizational structures and ensured that perspectives from all hierarchical levels informed the findings.

Length of service revealed that 40.4% had served 2-5 years, while 31.5% had less than two years of service. This pattern reflected the municipality's recent elevation from town council status in 2020, resulting in significant staff recruitment and transfers. The relatively short tenure of most employees meant that few had extensive experience with the organization's previous manual systems, potentially reducing resistance to electronic system adoption but also limiting institutional memory for comparison.

Departmental distribution showed reasonable representation across all functional areas, with Administration (18.0%) and Finance (16.9%) having the largest representation, reflecting these departments' size and central roles in organizational operations. The diversity of departments ensured that findings captured electronic system impacts across varied organizational functions.

3.2 Electronic System Management at Nansana Municipality

Table 2: Assessment of Electronic System Management (N=89)

Electronic System Management Indicator	Mean	Std. Deviation	Interpretation
System Availability and Functionality			
Electronic systems are available for performing my work tasks	3.64	1.18	High
The electronic systems function reliably without frequent breakdowns	2.97	1.24	Moderate
Systems are regularly updated with latest features	2.83	1.19	Moderate
Electronic systems cover all necessary work processes	3.12	1.22	Moderate
User-Friendliness and Accessibility			
The electronic systems are easy to use and navigate	3.21	1.26	Moderate
I can access systems whenever needed for my work	3.45	1.21	Moderate
System interfaces are clear and understandable	3.08	1.29	Moderate
Training provided was adequate for system operation	2.76	1.32	Moderate
Technical Support and Maintenance			
Technical support is readily available when problems occur	2.54	1.35	Low
System problems are resolved quickly	2.41	1.31	Low
Regular system maintenance is conducted	2.68	1.27	Moderate
Staff Capacity and Utilization			
Staff have adequate skills to use electronic systems	3.18	1.23	Moderate
Staff regularly use electronic systems for their work	3.52	1.19	High

Electronic systems have improved my work efficiency	3.89	1.08	High
I prefer electronic systems over manual processes	3.76	1.15	High
Overall Electronic System Management Mean	3.13	0.94	Moderate

Source: Primary Data, 2024

Assessment of electronic system management at Nansana Municipality revealed moderate overall performance ($M = 3.13$, $SD = 0.94$), indicating that while electronic systems were present and utilized, significant gaps existed in functionality, support, and optimization. The finding suggested that the municipality had made progress in digital transformation but had not yet achieved comprehensive, reliable electronic system management (Julius & Nancy, 2025b).

System availability scored relatively high ($M = 3.64$, $SD = 1.18$), confirming that electronic systems were generally accessible to staff for work tasks. This positive finding reflected the municipality's investment in hardware and software procurement. Regular staff utilization also scored high ($M = 3.52$, $SD = 1.19$), indicating that employees actually used available systems rather than reverting to manual alternatives. Most encouragingly, staff perceived that electronic systems improved work efficiency ($M = 3.89$, $SD = 1.08$) and expressed preference for electronic over manual processes ($M = 3.76$, $SD = 1.15$), suggesting positive user attitudes that could support further digital transformation efforts.

However, significant weaknesses emerged in system reliability and support infrastructure. System functionality reliability scored only moderate ($M = 2.97$, $SD = 1.24$), with the high standard deviation suggesting frequent system breakdowns or performance issues experienced by some users. This unreliability likely undermined user confidence and efficiency gains, as staff could not depend consistently on electronic systems for critical tasks. Regular system updates scored poorly ($M = 2.83$, $SD = 1.19$), indicating that systems became outdated and potentially incompatible with evolving needs or external platforms (Julius & Nancy, 2025b).

Technical support presented the most serious deficiency. Availability of technical support when problems occurred scored low ($M = 2.54$, $SD = 1.35$), and speed of problem resolution was even worse ($M = 2.41$, $SD = 1.31$). These findings revealed that when systems malfunctioned or users encountered difficulties, they received inadequate assistance, likely resulting in prolonged work disruptions and frustration. The absence of robust technical support effectively negated the benefits of system availability, as unreliable systems without support became obstacles rather than enablers.

Training adequacy received only moderate ratings ($M = 2.76$, $SD = 1.32$), suggesting that initial system rollout was not accompanied by comprehensive capacity building. This gap likely explained why staff capacity for system use scored only moderate ($M = 3.18$, $SD = 1.23$) despite generally high educational levels. Technical training should be ongoing rather than one-time, especially as systems evolved and new staff joined the organization.

System coverage of necessary work processes was moderate ($M = 3.12$, $SD = 1.22$), indicating that some organizational functions remained outside electronic system scope, necessitating continued reliance on manual processes. This partial coverage prevented realization of full integration benefits and created inefficiencies where electronic and manual systems interfaced.

3.3 Organizational Management Effectiveness

Table 3: Assessment of Organizational Management (N=89)

Organizational Management Indicator	Mean	Std. Deviation	Interpretation
Operational Efficiency			
Work processes are completed faster than before	3.72	1.12	High
Duplication of work has reduced significantly	3.58	1.16	High
Resources are utilized efficiently in operations	3.41	1.19	Moderate
Administrative costs have decreased	3.23	1.24	Moderate
Decision-Making Quality			
Management has timely access to information for decisions	3.67	1.14	High
Decisions are based on accurate data and analysis	3.54	1.18	High
Decision-making process has improved	3.49	1.21	Moderate
Strategic planning is more evidence-based	3.38	1.23	Moderate
Inter-Departmental Coordination			
Information sharing between departments has improved	3.61	1.17	High
Departments collaborate effectively on tasks	3.44	1.20	Moderate
Communication flow is smooth across the organization	3.29	1.25	Moderate
Duplication of efforts between departments has reduced	3.35	1.22	Moderate
Transparency and Accountability			
Financial transactions are transparent and traceable	3.89	1.06	High
Records are well-maintained and easily retrievable	3.76	1.11	High
Accountability for resources has strengthened	3.82	1.09	High
Corruption opportunities have reduced	3.47	1.28	Moderate
Service Delivery			
Citizens receive services faster than before	3.53	1.19	High
Service delivery processes are more convenient	3.46	1.21	Moderate
Quality of services provided has improved	3.31	1.26	Moderate
Citizen satisfaction with services has increased	3.18	1.29	Moderate

Overall Organizational Management Mean	3.51	0.97	High
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Source: Primary Data, 2024

Organizational management effectiveness at Nansana Municipality demonstrated a high overall rating ($M = 3.51$, $SD = 0.97$), suggesting that the municipality achieved reasonable performance across management dimensions despite challenges in fully optimizing electronic systems. This finding indicated that even moderate electronic system management yielded measurable organizational improvements.

Transparency and accountability emerged as the strongest organizational management dimension. Financial transaction transparency and traceability scored highest ($M = 3.89$, $SD = 1.06$), reflecting electronic systems' capacity to create audit trails that manual systems could not provide. Record maintenance and retrievability improved substantially ($M = 3.76$, $SD = 1.11$), addressing one of the most problematic aspects of previous paper-based systems where document loss was common. Accountability for resources strengthened ($M = 3.82$, $SD = 1.09$), suggesting that electronic monitoring reduced opportunities for resource misappropriation. Even reduction in corruption opportunities received moderate-to-high ratings ($M = 3.47$, $SD = 1.28$), indicating that digitalization contributed to integrity enhancement.

Operational efficiency showed significant improvements. Work processes completed faster than before scored high ($M = 3.72$, $SD = 1.12$), demonstrating tangible time savings from automation and workflow streamlining. Reduction in work duplication ($M = 3.58$, $SD = 1.16$) indicated that electronic systems eliminated redundant data entry and processing that characterized manual systems. However, resource utilization efficiency ($M = 3.41$, $SD = 1.19$) and administrative cost reduction ($M = 3.23$, $SD = 1.24$) scored only moderate, suggesting that efficiency gains had not yet fully translated into cost savings, possibly due to ongoing investment costs in system maintenance and upgrades. Decision-making quality benefited from electronic system management. Timely access to information scored high ($M = 3.67$, $SD = 1.14$), enabling managers to make decisions without prolonged information gathering delays. Accuracy of data supporting decisions improved ($M = 3.54$, $SD = 1.18$), reducing risks of ill-informed choices based on incomplete or outdated information. Overall decision-making process improvement ($M = 3.49$, $SD = 1.21$) and evidence-based strategic planning ($M = 3.38$, $SD = 1.23$) scored moderate, indicating progress but recognizing that other factors beyond information availability influenced decision quality.

Inter-departmental coordination showed moderate improvement. Information sharing between departments increased ($M = 3.61$, $SD = 1.17$), as electronic systems enabled cross-departmental access to relevant data without physical file transfers. However, effective collaboration ($M = 3.44$, $SD = 1.20$), smooth communication flow ($M = 3.29$, $SD = 1.25$), and reduction in duplicated efforts ($M = 3.35$, $SD = 1.22$) scored only moderate, suggesting that technical information sharing capabilities had not fully transformed collaborative work culture. Electronic systems provided tools for coordination, but organizational culture, incentive structures, and leadership still significantly influenced actual collaboration.

Service delivery improvements were evident but moderate. Speed of service provision increased ($M = 3.53$, $SD = 1.19$), addressing citizen complaints about delays. However, service convenience ($M = 3.46$, $SD = 1.21$), quality ($M = 3.31$, $SD = 1.26$), and citizen satisfaction ($M = 3.18$, $SD = 1.29$) scored moderate, indicating that while internal processes improved, full benefits had not yet reached service users. This gap might reflect that many municipal services still required in-person interactions, or that citizens remained unaware of service improvements.

3.4 Correlation Between Electronic System Management and Organizational Management

Table 4: Correlation Analysis (N=89)

Variable	Organizational Management	Electronic System Management
Organizational Management	1	0.758**
Electronic System Management	0.758**	1

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

Source: Primary Data, 2024

Pearson correlation analysis revealed a strong positive relationship between electronic system management and organizational management ($r = 0.758$, $p < 0.01$). This statistically significant correlation demonstrated that higher levels of electronic system management effectiveness were associated with better organizational management outcomes at Nansana Municipality. The correlation coefficient of 0.758 indicated that approximately 57.5% of variance in organizational management could be associated with electronic system management quality, representing a substantial and meaningful relationship.

The positive direction confirmed that improvements in electronic system availability, functionality, reliability, technical support, and user capacity corresponded with enhanced operational efficiency, decision-making quality, coordination, transparency, and service delivery. This relationship validated theoretical expectations that digital transformation, when properly implemented, generated tangible organizational benefits.

The high statistical significance ($p < 0.01$) provided strong evidence that this relationship was not coincidental but reflected genuine operational dynamics at the municipality. The correlation was sufficiently strong to justify continued investment in electronic system development and optimization as a strategy for enhancing overall organizational management effectiveness. The findings suggested that addressing identified weaknesses in system reliability, technical support, and training could yield substantial organizational management improvements.

3.5 Regression Analysis: Electronic System Management Predicting Organizational Management

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.758	0.575	0.570	0.636

Table 6: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
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Regression	47.832	1	47.832	118.264	0.000
Residual	35.204	87	0.405		
Total	83.036	88			

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.628	0.287		2.188	0.031
Electronic System Management	0.821	0.075	0.758	10.875	0.000

Source: Primary Data, 2024

Regression analysis demonstrated that electronic system management significantly predicted organizational management effectiveness at Nansana Municipality. The R-square value of 0.575 indicated that electronic system management explained 57.5% of the variance in organizational management performance. This substantial proportion confirmed electronic systems as a major determinant of organizational effectiveness. The adjusted R-square of 0.570 remained robust after accounting for model complexity, confirming that the explanatory power was genuine.

The ANOVA results ($F = 118.264$, $p < 0.000$) confirmed that the regression model was statistically significant and appropriate for predicting organizational management based on electronic system management. The large F-statistic and near-zero p-value provided compelling evidence that electronic system management had genuine predictive power for organizational outcomes.

The regression coefficient for electronic system management ($B = 0.821$, $t = 10.875$, $p < 0.000$) was positive, substantial, and highly significant. This coefficient indicated that for every one-unit increase in electronic system management quality (on the five-point scale), organizational management effectiveness increased by 0.821 units. In practical terms, a municipality improving electronic system management from moderate (score 3) to high (score 4) would experience a 0.821-point improvement in organizational management, representing meaningful enhancement across efficiency, decision-making, coordination, accountability, and service delivery dimensions.

The standardized beta coefficient of 0.758 confirmed the strong predictive power of electronic system management. The highly significant t-statistic ($t = 10.875$) demonstrated that this predictor's contribution far exceeded chance variation.

These regression findings provided robust empirical evidence that electronic system management was not merely associated with but actually predicted and influenced organizational management effectiveness. The results justified strategic prioritization of electronic system optimization as a lever for improving municipal administration. The

substantial variance explained (57.5%) indicated that while electronic systems were critically important, other factors such as leadership quality, organizational culture, staff motivation, and resource availability also influenced organizational management, suggesting need for holistic improvement strategies.

Conclusions

The findings demonstrated that electronic system management played a central role in shaping organizational management effectiveness within Nansana Municipality. The analysis showed that improvements in electronic systems led to clear enhancements in overall administrative performance. This means that when electronic systems were functioning well being reliable, user-friendly, and well-supported the organization experienced better coordination, stronger accountability, and more efficient service delivery. The strength of the relationship indicated that electronic systems were not only associated with organizational management but were an active driver of improved administrative outcomes. These results confirmed that modern digital tools, when well-managed, were essential for strengthening municipal operations. However, the findings also showed that while electronic systems were critical, they were not the only factor influencing organizational performance.

Recommendations

The municipality should prioritize investment in improving and maintaining electronic systems, as these tools directly contribute to better administrative performance. Strengthening staff capacity is equally important; employees need ongoing training to effectively use and manage these digital systems for maximum impact. Continuous upgrading and monitoring of electronic systems should be institutionalized to ensure they remain efficient, secure, and responsive to organizational needs. Integrating electronic systems across departments would help eliminate administrative gaps, promote seamless communication, and improve decision-making. Developing clear policies that support digital governance would further strengthen system consistency and accountability. The municipality should complement digital improvements with efforts to enhance leadership practices, foster a positive organizational culture, and ensure adequate staff motivation and resources.

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