



DIGITAL TRANSFORMATION AS A STRATEGIC OPERATIONAL AUTOMATION AND PERFORMANCE OF REVENUE COLLECTION SYSTEMS IN IN THE COUNTY GOVERNMENT OF MURANG'A, KENYA

¹ Racheal Wanja Lameck ²Dr Josphat Kwasira, PhD

1. MBA Student in Strategic Management, Jomo Kenyatta University of Agriculture and Technology
2. Lecturer, Jomo Kenyatta University of Agriculture and Technology

ABSTRACT

This study aimed to examine the effect of digital transformation on performance of revenue collection systems in the County Government of Murang'a. This study employed a descriptive design. The study's target population was target population was 330 respondents involved with revenue collection stems a sample size of 181 was used based on the Taro Yamane formula. Research instruments included questionnaires. Qualitative data was analyzed and presented in narrative statements, while inferential statistics were analyzed using the Pearson correlation coefficient and multiple regression analysis to test hypotheses. The correlation coefficient for digital transformation was positive and significant, $r(639); p \leq .05$. The regression results indicated that Digital transformation had positive significant relationship with the performance of revenue collection systems in Murang'a County in Kenya ($B = 1.132$, $\text{Beta} = .992$, $t\text{-cal} = 12.988$, $\text{Sig} = .000$). This inferred the rejection of the null hypothesis and the conclusion made that H1 (There is a significant influence of digital transformation on the performance of revenue collection systems in Murang'a County). The study recommends Murang'a County and other devolved units should scale up adoption of digital platforms, including mobile applications, e-portals, and online payment systems.

Keywords: Digital Transformation, Performance of Revenue collection systems

Introduction

Revenue is crucial for successful devolution, enabling counties to effectively govern, deliver services, drive development, and be accountable to citizens (PWC Kenya, 2024). Without adequate, predictable, and fairly shared revenue streams, devolution may fail to deliver benefits like improved governance, equity, and service delivery (Shah, 2021). Traditionally, revenue collection in many counties has been characterized by manual processes, which are often slow, error-prone, and susceptible to corruption and data manipulation. These inefficiencies have significantly hindered counties from reaching their full revenue potential, thereby affecting service delivery and development agendas (Council of Governors, 2023). The introduction of strategic operational automation emerged as a solution to address these challenges and drive improvements in efficiency, accountability, and transparency within revenue collection systems (COG, 2021). The County government of Murang'a, like many others, has faced challenges such as low revenue compliance, leakages in the collection process, poor forecasting, and limited stakeholder satisfaction. In response, the county has started embracing automation tools, such as electronic payment systems, integrated revenue management platforms, and real-time monitoring dashboards (Murang'a County Government, 2024).

Digitalization plays a vital role in VAT enforcement, with tools like real-time e-invoicing and the Standard Audit File for Tax (SAF-T) being required by projects such as VAT in the Digital Age (ViDA), set to commence in 2030. The use of artificial intelligence is on the rise for tasks like detecting anomalies, gaining behavioral insights, and preventing fraud, thereby enhancing voluntary compliance. The market for European Automated Tax Software is substantial, exceeding \$5.5 billion in 2024, and is expected to grow at a compound annual growth rate (CAGR) of 7.4%, fueled by the increasing regulatory intricacies and demands for real-time reporting. Leading software suppliers are concentrating on providing cloud-based and AI-driven tax solutions to assist businesses in upholding accuracy and compliance amid changing regulations (Zoting & Shivarkar, 2025).

In Uganda, Mugala et al. (2024) investigated the impact of strategic automation on revenue collection efficiency at Global Tea Factory in Bushenyi District. The study focused on how automation tools such as electronic invoicing, digital payment systems, and automated record-keeping influence revenue accuracy, timeliness, and accountability. It was revealed that automation significantly improved efficiency, reduced manual errors, and enhanced financial transparency. The study recommended broader adoption of strategic automation and continuous staff training to sustain gains in revenue performance (Mugala et al., 2024).

Sande et al. (2023) investigated the moderating effect of automated revenue collection systems on the relationship between budgeting practices and the financial performance of county governments in Kenya. The study found that while effective budgeting practices positively influence financial performance, the presence of automated systems significantly strengthens this relationship by enhancing revenue predictability, reducing leakages, and improving accountability. The study recommended scaling up automation across counties to optimize the impact of budgeting on fiscal outcomes (Sande et al., 2023).

Statement of the Problem

In the county government of Murang'a, like many other devolved units, the performance of revenue collection systems has historically been hampered by manual processes, limited integration of functions, data inefficiencies, and minimal real-time oversight (World Bank, 2021). Despite the increasing advocacy for digitization under Kenya's Public Finance Management Act (2012) and support from the National Treasury through platforms like the Integrated Financial Management Information System (IFMIS) and eCitizen, many counties have yet to implement automation in a strategic and integrated manner fully. The Office of the Auditor General (2022) flagged irregularities in revenue collection across several counties,

including Murang'a, attributing them to inadequate system integration, delayed reporting, and weak internal controls. Despite ongoing efforts to digitize and automate revenue collection systems in the county government of Murang'a, the county continues to experience challenges such as delayed reporting, revenue leakages, limited transparency, and inaccurate data reconciliation (Murang'a County Government, 2024).

Objective of the Study

The study aimed to examine the effect of digital transformation on performance of revenue collection systems in the County Government of Murang'a.

Research Hypothesis

The study tested the following research hypothesis:

H₀₁: Digital transformation has no significant effect on performance of revenue collection systems in the County Government of Murang'a.

LITERATURE REVIEW

Theoretical Framework

The Sociotechnical Systems (STS) Theory, developed in the 1950s by researchers Eric Trist and Ken Bamforth, emphasizes the interconnected relationship between social and technical elements within an organization. It posits that optimal performance is achieved when both subsystems are jointly optimized, rather than considered in isolation (Trist & Bamforth, 1951). The STS Theory offers a valuable approach for organizations transitioning from manual to digital systems, focusing on the integration of digital technologies like automated workflows, cloud computing, digital forms, and electronic records. Successful digitization should consider not only the deployment of technical tools but also their impact on users and workplace social dynamics (Pasmore et al, 1982).

The STS Theory suggests that digitalizing processes in public revenue systems, like those in Murang'a County, should be done with the involvement of end-users, ensuring alignment with human workflows, competencies, and motivations. This includes creating user-friendly platforms for revenue collection, which should be supported by training and embedded within structures that encourage collaboration and feedback (Mumford, 2006). Additionally, STS highlights the importance of collaborative optimization, which is particularly significant in digitized contexts. To enhance performance through digitization, it is essential that both technology such as mobile payment integration and automated notifications and social systems including trained staff, responsive leadership, and supportive policies, are coordinated (AbdelMoneim, 2020).

This combined emphasis guarantees that digital tools improve rather than hinder current human processes, leading to increased efficiency, transparency, and user satisfaction (Teece & Linden, 2017). Sociotechnical Systems Theory highlighted the need for a balanced approach to process digitization, where both human and technological elements are co-designed to support effective, sustainable transformation. Its application ensured that digitization efforts are not only technically sound but also socially viable, leading to better adoption and improved organizational outcomes in Murang'a County.

Conceptual Framework

This study's conceptual framework sought to demonstrate the relationship between digital transformation as strategic operational automation and performance of revenue collection systems in Murang'a County. The independent variables is digital transformation while the dependent variable was the performance of revenue collection systems in Murang'a County. The conceptual framework is illustrated in Figure 1 below.

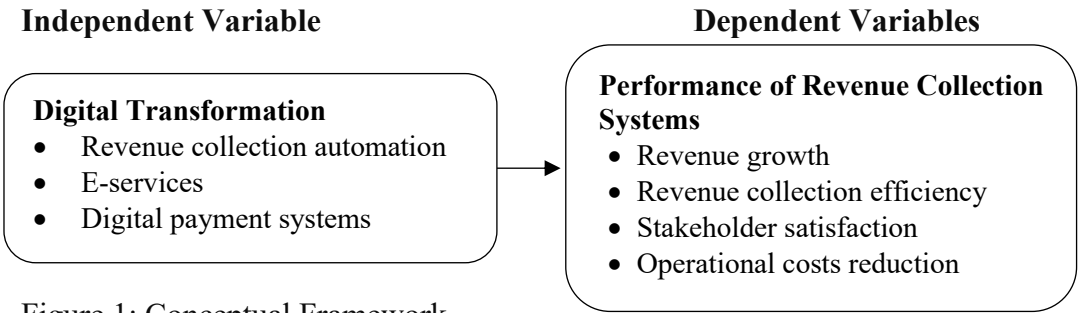


Figure 1: Conceptual Framework

Digital Transformation

Digital transformation involves the tactical incorporation of digital technologies throughout every aspect of a business to fundamentally transform operations, culture, and customer experiences, thus generating new or improved value and enhancing competitiveness. It involves more than just the implementation of new technologies, necessitating a cultural change, new business models, and an emphasis on data to adjust to changing market demands and customer expectations (Mont  r  mal, 2024). This process necessitates careful planning, effective project management, and compliance with best practices to maintain the long-term consistency and relevance of digital content (Raj & Lin, 2020). Digitization of processes using mobile technology and e-services improves operational efficiency, reduces fraud, enables remote transactions, and provides data visibility, serving as a strategic model for public revenue systems (Qin & Shen, 2024).

Digital transformation in revenue collection systems in this study will include including automation, e-services, and digital payment systems, to improve efficiency, transparency, and revenue performance. Revenue collection automation refers to the use of technology to streamline, digitize, and automate the processes involved in collecting revenue, such as tax payments, fees, and other income (Ignition, 2025). This automation enhances efficiency, accuracy, transparency, and security, while reducing manual errors, fraud, and operational costs (Billing Platform, 2025). Murang’a County has introduced an automated revenue collection system using digital platforms and mobile technology to replace manual processes. Residents can pay fees and taxes by dialing a specific code linked to Safaricom. The county ICT and finance departments developed a system for various services, launched in early 2023, reducing revenue leakages and increasing collections through real-time monitoring. (Maarifa Centre, 2023).

Digital payment systems play a crucial role in contemporary revenue collection approaches, offering technological solutions that enhance compliance, convenience, efficiency, and financial accountability within both government and private sectors (Aluvisia & Ghabon, 2025). The shift to digital services allows residents to submit applications for permits, such as business licenses, online, thereby removing the necessity of visiting county offices in person. This enhances convenience and minimizes wait times and delays in transactions. The electronic portal enables residents to register, process applications, and print documents at local cyber cafes, increasing accessibility while ensuring organized service delivery. The digitization initiatives in Murang’a County incorporate these e-services as part of a comprehensive plan to modernize the engagement between citizens and the county government (Murang'a County Government, 2024).

Murang’a County has implemented a digital payment system that mainly utilizes mobile money technology, which is widely used in Kenya. Residents of the county can conduct electronic transactions through USSD codes and payment links, enhancing transparency as payments are recorded in real-time, thus eliminating opportunities for theft and fraud. This digital payment framework minimizes cash transactions by officials and guarantees that funds are efficiently monitored and accounted for. The embrace of mobile payments and digital platforms has

markedly boosted monthly revenue collection and improved financial governance (Murang'a County Government, 2024).

Performance of Revenue Collection Systems

According to McKinsey, organizations that prioritize process automation can reduce operational costs by up to 30%, making it a key driver for sustainable growth. Performance of Revenue Collection Systems can be assessed through multiple dimensions that capture both financial and operational efficiency (OECD, 2021). Automated revenue collection systems significantly enhance revenue growth by increasing cash receipts, billing accuracy, and monitoring efficiency. Revenue growth remains a primary indicator, reflecting the system's ability to increase collections over time through enhanced compliance, expanded tax bases, and reduced leakages. Studies show that automated and well-integrated systems tend to significantly improve revenue performance by minimizing human error and improving traceability (IMF, 2020).

Empirical Review

Digital Transformation and Performance of Revenue Collection Systems

Sheth (2021) conducted an empirical examination of how business process automation influences both efficiency and accuracy across multiple industries including finance, healthcare, and manufacturing. The study, based on quantitative data and real-world case studies, found that automation significantly enhances operational performance. Automated tasks like data entry and compliance checks lead to faster throughput and improved accuracy. This aligns with Lean, Six Sigma, and Digital Transformation theories, which emphasize waste reduction and process standardization. The study also acknowledges implementation challenges like setup costs, integration complexity, and training requirements, but emphasizes the long-term return on investment when change management and process standardization are effectively handled (Sheth, 2021).

Nusantara et al (2024) conducted a comprehensive study on how business process digitization impacts operational efficiency across companies in Indonesia. The study emphasizes the role of digital transformation in improving organizational culture, employee productivity, and performance. It uses a qualitative-descriptive approach and case examples to explore how digitization initiatives like automated production workflows and digital HR management impact corporate efficiency. The findings show that digitized business processes are faster, more integrated, and improve reporting accuracy. The research also highlights the importance of supportive leadership, human capital development, and digital skills training (Nusantara *et al*, 2024).

Naggayi (2023) examined how digitalisation affects the operational performance of insurance companies in Kenya. The study was underpinned by the Technology Acceptance Theory (TAM) and the Resource-Based View (RBV), the study views digitalization as a vital internal capability that provides a sustainable competitive advantage within the insurance sector. A sample of 61 Kenyan insurance firms in 2023 found that while digitalisation was moderately implemented in policy administration, underwriting, claims, customer onboarding, and procurement, it did not significantly impact operational performance. Policy administration and procurement explained 84.2% of the variation among firms, while claims, underwriting, peer-to-peer interactions, and onboarding did not significantly account for performance differences, possibly due to underdeveloped digital infrastructure (Naggayi, 2023).

RESEARCH METHODOLOGY

Research philosophy and design

This study employed a descriptive design, specifically a survey, integrated with elements of correlational research, which was particularly effective for capturing the nuances of automation

within revenue collection systems. The descriptive research design was deemed appropriate for examining the systematic and factual description of current conditions relating to strategic operational automation and its effects on revenue collection performance in Murang'a County.

Study Population

The target population for this study comprised staff members working within the Murang'a County Government who are directly involved in the planning, execution, oversight, and monitoring of revenue collection systems and process automation. The study targeted county revenue officers (80), finance and economic planning staff (50), ICT officers (20), Sub-county & ward administrators (30), and revenue system users (business owners) (150) thus in total 330 respondents were targeted.

Sample size

The sample size of 181 was obtained using the Taro Yamane formula also known as Michael Slovin theory (Yamane, 1967). The sample size was then studied and inference made to the larger population.

Sampling Technique

This study employed a stratified random sampling technique to ensure that all key departments involved in revenue collection automation within the County Government of Murang'a are adequately represented. The target population was first stratified into three distinct groups based on Departmental affiliation: the Revenue Department, Finance Department, and ICT Unit.

Data Collection

The primary data collection instrument for this study was a structured questionnaire, specifically designed to capture both demographic information and variables related to strategic operational automation and the performance of revenue collection systems. The structured questionnaires was distributed physically to the selected participants at their respective workstations, with clear instructions provided to ensure accurate and honest responses.

Data analysis

The data collected was thoroughly examined and checked for completeness and compressibility. The data collected was also organized, tabulated and analyzed using descriptive and inferential statistics. .

FINDINGS OF THE STUDY

Descriptive Statistics for Digital Transformation

In the context of this study, they were used to describe the perceptions of strategic operational automation and performance of revenue collection systems in the County Government of Murang'a. Respondents were asked to give their opinions based on their level of agreement or disagreement with the statements based on a Likert scale of 1-5 where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree.

The findings presented in Table 1 highlight respondents' perceptions of digital transformation and its effect on the performance of revenue collection systems in the County Government of Murang'a. The overall mean score of 3.52 with a standard deviation of 0.805 indicates that respondents generally agreed that digital transformation has had a positive impact on revenue collection performance, though with varying degrees of emphasis across specific aspects. The findings align with Zoting & Shivarkar (2025) who opined that digitalization of Customs and Border Protection in the US enable improve operational efficiency and the taxpayer experience by offering online portals for payments and reporting which subsequently simplified and

automate revenue collection at ports of entry by reducing manual processes and expanding electronic payment options. In Africa, Laban and Muthinja (2023), Dzansi et al (2022), Adamu and Kawugana (2025), Nassoro and Mashenene (2024) all found automation of revenue collection significantly contributed to cost reduction and greater revenue accuracy, both of which positively predicted improved revenue collection.

The strongest agreement emerged around the statement that citizens are able to access revenue-related services through digital platforms such as portals and mobile applications ($M = 3.97$, $SD = 1.212$), with over 75% of respondents agreeing or strongly agreeing. This underscores how e-services have enhanced accessibility and convenience for taxpayers; a factor widely recognized as a driver of compliance and improved revenue (Zoting & Shivarkar, 2025). Closely aligned, e-services promoting transparency and convenience ($M = 3.72$, $SD = 1.277$) and the use of digital payment systems to increase accountability ($M = 3.68$, $SD = 1.012$) also received strong support. These results reflect how digital tools are reshaping trust and accountability in public finance, consistent with OECD (2025) findings that digital payment platforms strengthen transparency and reduce leakages in government revenue processes.

On the other hand, moderate agreement was observed in areas such as automation reducing manual errors ($M = 3.28$, $SD = 1.120$) and most revenue processes being automated ($M = 3.45$, $SD = 1.096$). This suggests that while automation has been adopted, there are still gaps in fully digitizing revenue operations and eliminating manual interventions. Harisson (2025) observed that automation enables firms to streamline workflows automating document management, client communication, data entry, and compliance monitoring, allowing human resources to focus on higher-value tasks. Similarly, Mugala et al (2024) also observed that automation significantly improved efficiency, reduced manual errors, and enhanced financial transparency of revenue collection at the Global Tea Factory in Uganda.

Interestingly, the relatively lower mean score for digital transformation significantly improving revenue collection performance ($M = 3.09$, $SD = 1.247$) implies that the benefits of digitalization may not yet be fully realized across all departments or consistently perceived by all users. Similar challenges were reported by Laban and Muthinja (2023), who emphasized that partial adoption, inadequate training, and infrastructural limitations often constrain the full impact of digital transformation in African county-level governance systems. Similarly, Nassoro and Mashenene (2024) found that time allocation emerged as a negative predictor, indicating that inefficiencies in time use could undermine revenue performance in revenue collection systems within DART.

In summary, the results demonstrate that digital transformation has substantially improved the performance of Murang'a's revenue collection system, especially in areas of service accessibility, transparency, and accountability. However, challenges remain in scaling up automation across all processes and ensuring uniform perceptions of its impact. These findings align with the study's second objective by confirming that digital transformation is a critical enabler of efficient and accountable revenue systems, albeit with room for strengthening its implementation. The findings are supported by previous studies both global and regional perspectives. In Africa perspective, Mugala et al (2024) found strategic automation in revenue collection systems improved efficiency at Global Tea Factor in Uganda,. In Nigeria, Abubakar (2023) found automated revenue collection enhanced transparency and boosted revenue generation. In Kenya, Laban and Muthinja (2023) also found that revenue automation improved performance by reducing leakages and increasing accuracy, while real-time monitoring and digital payment systems improved transparency and reduced corruption risks.

Table 1: Descriptive Statistics for Digital Transformation

Digital Transformation	SA %	A %	N %	D %	SD %	MN	STDEV
Digital transformation has significantly improved the performance of the county's revenue collection system.	14.9	27.7	19.6	27.7	10.1	3.09	1.247
Most revenue collection processes in our organization are automated.	20.3	29.7	27	20.9	2.0	3.45	1.096
Automation has reduced manual errors in revenue collection.	34.5	20.3	8.1	12.8	24.3	3.28	1.120
Citizens are able to access revenue-related services through digital platforms (e.g., portals, apps).	42.6	32.4	13.5	2.7	8.8	3.97	1.212
E-services have made the revenue collection process more transparent and convenient.	34.5	29.7	19.6	6.1	10.1	3.72	1.277
Digital payment options (e.g., mobile money, online banking) are available for paying county revenue.	30.4	20.9	19.6	19.6	9.5	3.43	1.251
Use of digital payment systems has increased the accountability in revenue collection.	22.3	40.5	19.6	17.6	0	3.68	1.012
Average Digital Trnaformation	28.5	28.7	18.1	15.3	9.3	3.52	0.805

Correlation Analysis

Digital transformation exhibited a strong positive relationship with performance of revenue collection systems in Murang’a County ($r = 0.639$, $p < 0.01$), indicating that adopting digital technologies significantly boosts revenue collection performance. Previous studies by Naggayi (2023), Maiyo (2022), and Mulwa *et al.* (2024) support the findings reporting a positive correlation between digitization strategies and operational performance in Kenyan financial institutions. Achibo and Wanjohi (2024) also found a strong positive correlation (0.818) between I-Tax system capabilities and revenue collection performance by KRA.

Table 2: Correlation Analysis

Data Transformation		
Performance of Revenue collection Systems	r	.639**
	Sig.	.000
	N	148
Digital Transformation	r	1
	Sig.	
	N	148

Regression Analysis

Regression analysis was conducted to determine the predictive relationship between the independent variables of digital transformation and the dependent variable, performance of revenue collection systems. The regression coefficients in Table 3 reveal the individual influence of the predictor (digital transformation) on the performance of revenue collection systems in Murang’a County. The constant ($\beta = 1.684$, $p < 0.001$) indicates the baseline level of performance when the predictor is held constant. While it is statistically significant, the focus lies on the slope coefficients, which show the effect of each independent variable. Digital transformation emerged as the most influential predictor, with the largest standardized coefficient ($\beta = 0.992$). The results imply that a unit improvement in digital transformation practices such as automation, use of e-services, and digital payment options, leads to a 1.132 increase in performance. Its high statistical significance underscores the pivotal role of digital

tools (E-services, digital payment, and automation of revenue collection) in enhancing efficiency, reducing leakages, and improving citizen satisfaction. This agrees with Seth (2021), who reported that automation directly boosts transparency and efficiency accuracy across multiple industries including finance, healthcare, and manufacturing. Similarly, Cheboi and Ogaga (2021) found that the use of E-registration, E-filing, and E-payment on Pay as You Earn Tax (PAYE) significantly enhanced performance of tax in Kenya. Technology uptake explained 93.4% variation in tax performance in Kenya by medium taxpayers. In another study, Mulwa *et al* (2024) found that digital tools, such as electronic tendering, ERP, cloud computing, and AI, significantly improved operational efficiency, customer satisfaction, and overall performance in Kenyan state corporations.

Table 3: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.684	.288		5.846	.000
Digital Transformation	1.132	.087	.992	12.988	.000

a. Dependent Variable: Performance of Revenue collection Systems

Hypothesis Testing

H₀₁: Digital transformation has no significant effect on performance of revenue collection systems in the County Government of Murang’a.

From the regression results in Table 3, digital transformation (B = 1.132) is not equal (B ≠ 0), the t-statistic (12.988) > t-critical (± 1.973), and P-value (0.022) < 0.05. Digital transformation had a positive and statistically significant effect on revenue collection performance in the county Government of Murang’a. Digital transformation is the single most powerful predictor in the model. Counties that invest in automation, e-services and digital payment channels are likely to see the largest improvements in revenue performance. The magnitude and significance indicate a robust and practically important relationship. Thus, the null hypothesis is rejected and the alternative accepted. Digital transformation has a significant effect on performance of revenue collection systems in the County Government of Murang’a. The findings corroborate with Cheboi and Ogaga (2021) that digital transformation in improves tax performance in Kenya and Mulwa *et al* (2024) who found that digital tools significantly improved operational efficiency, customer satisfaction, and overall performance in Kenyan state corporations.

CONCLUSIONS

Digital transformation through automation of processes, introduction of digital payment platforms, and e-services, proved to be the strongest predictor, underscoring its role in reducing manual inefficiencies, enhancing transparency, and increasing citizen satisfaction. The study found a significant association between digital transformation and the performance of revenue collection systems thus, the null hypothesis was rejected. The study concludes that digital transformation is the most critical factor influencing revenue collection performance in the County Government of Murang’a. Adoption of digital payment platforms, online services, and automation of processes has significantly improved efficiency, minimized errors, and enhanced transparency.

RECOMMENDATIONS

Digital transformation Murang’a County and other devolved units should scale up adoption of digital platforms, including mobile applications, e-portals, and online payment systems. In

addition, training programs should be introduced to build staff and citizen capacity in using digital tools, thus enhancing adoption and trust. Strengthening ICT infrastructure will reduce leakages, enhance compliance, and expand the revenue base.

REFERENCES

- Abubakar, H. (2023). "Automated Revenue Collector App (ARCA) for Some Selected Local Government Areas of Yobe State". *International Journal of Innovative Information Systems & Technology Research*, 11(3), 146-158.
- Achibo, W. O., & Wanjohi, F. M. (2024). "I-tax system capabilities and revenue collection by Kenya Revenue Authority". *International Academic Journal of Economics and Finance*, 4(3), 70-96.
- Adamu, Y., & Kawugana, A. (2025). "Automation as a Panacea to Manual Collection of Internally Generated Revenue in North East Region, Nigeria". *International Journal of Computer Science and Mathematical Theory*, 11(4), 8-22.
- AbdelMoneim, M. (2020). *"Strategies to Digitize Business Processes"*. Doctoral thesis, Walden University
- Aluvisia, J. I., & Ghabon, Y. K. (2025). "Digital Payment systems and revenue collection efficiency at Kisumu County". *International Journal of Research Publication and Reviews*, 6(8), 1732-1738.
- Billing Platform. (2025). *"Key Benefits of Automated Revenue Management"*. Billing & Monetization.
- Cheboi, C. J., & Ogaga, B. (2021). "Effect of Technological Uptake On Pay as You Earn Tax Performance from Medium Taxpayers in Kenya". *African Tax and Customs Review*, 2, 58-78.
- COG. (2021). *"Best Practices in Own Source Revenue Collection among county government"*. Nairobi: Council of Governors.
- Council of Governors. (2023). *"The status of county governments' finances and recommendations for improvement."*. Nairobi, Kenya: Council of Governors.
- Dzansi, J., Jensen, A., Lagakos, D., & Telli, H. (2022). *"Technology and Tax Capacity: Evidence from Local Governments in Ghana"*. SSRN.
- Ignition. (2025). *"Revenue automation: The ultimate guide for businesses"*. Ignition Content Team.
- Harrison, J. (2025). *"ITR APAC Tax Awards 2025: shortlist announced"*. ITR World Tax.
- Laban, M., & Muthinja, M. (2023). "Effects of revenue collection automation on the performance of own source revenue in Nyandarua County Kenya". *International Academic Journal of Arts and Humanities*, 1(3), 226-247
- Maarifa Centre. (2023). *"Murang'a County Doubles Revenue Collection Through Automation "*. Council of Governors.
- Montréal, J. (2024). *"Digitizing processes to boost business performance"*. Appvizer.
- Mulwa, Linet & Kimitei, Edwin & Zurah, Mohammed. (2025). Effect of Supply Chain Digitization on Firm Performance in Government State Corporations in Kenya. *American Journal of Economics and Business Innovation*. 4. 169-179. 10.54536/ajebi.v4i1.3780.
- Mumford, E. (2006). "The story of socio-technical design: Reflections on its successes, failures and potential". *Information Systems Journal*, 16(4), 317-342.
- Mugala, Z., Nyamboga, T. O., & Nyambane, D. O. (2024). "Strategic automation on revenue collection efficiency Efficiency: Insights from Global Tea Factory, Bushenyi District, Uganda". *Business Management*, viii(x), 2082-2098.
- Murang'a County Government. (2024). *"Muranga County Doubles revenue collection by embracing online automation"*. Maarifa Centre.
- Naggayi, F. (2023). *"Digitalization and operational performance of insurance firms in Kenya"*. Msc thesis in operations and technology management, University of Nairobi.
- Nusantara, A. H., Kartaatmadja, A. T., Umam, I. K., & Saedudin, R. (2024). "Digitizing Business Processes to Improve Operational Efficiency in companies". *Jurnal teknik sistem Informasi, Teknik dan Teknologi Terapan*, 1(1), 17-23.
- OECD. (2025). *"Revenue Statistics in Asia and the Pacific 2025: Personal Income Taxation in Asia and the Pacific"*. Paris: OECD Publishing
- Office of the Auditor General. (2022). *"Audit Report on County Government of Murang'a for the Year Ended June 30, 2022"*. Nairobi: Republic of Kenya.
- Pasmore, W. A., Francis, C., Haldeman, J., & Shani, A. (1982). "Sociotechnical systems: A North American reflection on empirical studies of the seventies". *Human Relations*, 35(12), 1179-1204.

- PWC Kenya. (2024). *"Enhancing Own Source Revenue (OSR) potential"*. PWC.
- Qin, Y., & Shen, Y. (2024). "Can Process Digitization Improve Firm Innovation Performance? Process Digitization as Job Resources and Demands". *Sustainability*, 16(13), 5295.
- Raj, P., & Lin, J.-W. (2020). "Chapter One - Stepping into the digitally instrumented and interconnected era". *Advances in Computers*, 117(1), 1-34.
- Sande, D. A., Okiro, K., Wanjare, J., & Omoro, N. (2023). "Moderating effect of automated revenue collection systems on the relationship between budgeting practices and the financial performance of county governments in Kenya.". *African Journal of Emerging Issues*, 5(8), 48-66
- Shah, A. (2021). *"Public sector governance and accountability series: Intergovernmental fiscal transfers"*. Washington DC: World Bank.
- Sheth, H. (2021). "The impact of automation on business porcess efficiency and accuracy" enahancing operational performance in the Digital Age". *Iconic research and Engineering Journals*, 4(12), 317-321.
- Teece, D. J., & Linden, G. (2017). "Business models, value capture, and the digital enterpris". *Journal of Organization Design*, 6(1), 2-14. doi:10.1186/s41469-017-0018-x
- Trist, E. L., & Bamforth, K. W. (1951). "Some social and psychological consequences of the longwall method of coal-getting". *Human Relations*, 4(1), 3-38.
- World Bank . (2021). *"Enhancing Digital Governance in Kenya: Opportunities and Challenges for County Governments"*. Nairobi: The World Bank.
- Yamane, T. (1967). *Statistics: An Introductory Analysis*. (2nd Edition), Harper and Row, New York.
- Zoting, S., & Shivarkar, A. (2025). *"Tax Management Software Market Size, Share and Trends 2025 to 2034"*. Precedence Research.