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Assessment of Digitising Manual Processes on Service Delivery in Public Service, Focusing on The State Department for Lands and Physical Planning

Authors

Ann Mary Mukami Kanambiu [1]; Leah Nyambura Kariuki [2]; June Katunge Ngandi [3]; Peris Wanjiku Kimani [4]; Priscillah Watetu Kimani [5]; Mwende Kimanthi [6]; Danson Murithi Kirema [7]

Main author email: a.kanambiu@gmail.com

(1.2.3.4.5.6.7) Kenya School of Government, Kenya.

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Abstract

The purpose of this study was to analyse the impact of digitising manual processes on operational efficiency in Kenya's State Department for Lands and Physical Planning, amid varying effectiveness of public service digitisation efforts and concerns over whether anticipated improvements in service delivery and efficiency are being realised. The research employed a qualitative case study design, collecting data through semi-structured interviews with 10 key informants from the department. Thematic analysis was employed in identifying patterns and drawing conclusions from the interview transcripts. Findings indicated that digitisation significantly enhanced operational efficiency by reducing processing times, minimising errors, and improving inter-departmental coordination. Digital services, including online land title registration and payment systems, increased accessibility for citizens, particularly in rural areas. However, the digital divide, exacerbated by limited internet connectivity and low digital literacy in rural regions, hindered equitable access and full adoption of these services. In conclusion, while digitisation has yielded substantial benefits in efficiency and service delivery, persistent challenges related to infrastructure and the digital divide must be addressed. The study recommends prioritising system integration, broadening digital literacy initiatives for citizens, resolving rural connectivity gaps, and providing ongoing staff training to maximise the use of digital tools. Greater investment in digital infrastructure, targeted interventions, and robust policy measures are also essential to narrow the digital divide. Further research is advised on the long-term impact of digital transformation in public services, focusing on accessibility, infrastructure, and integrating emerging technologies for better service delivery.

Key terms: Digitising, efficiency, manual processes, service delivery, State Department for Lands and Physical Planning.

1.0 INTRODUCTION

In recent years, public service organisations globally have focused on digitising manual processes (Shibambu & Ngoepe, 2025). By digitising service delivery aspects, like document management and communication channels, public institutions improve responsiveness and transparency (Egba et al., 2025).

At the local level in Kenya, the government has made significant strides toward digitising public services, particularly within the Ministry of Lands and Physical Planning. Kenya's adoption of ICT in public service delivery began with the aim of reducing bureaucratic inefficiencies, minimising corruption, and improving the quality of services provided to citizens. The Ministry of Lands, for instance, has been at the forefront of land records digitisation, a process that aims to replace outdated manual land registration systems with electronic databases (Taurus & Wamae, 2022).

The digitisation efforts in the Ministry of Lands are part of Kenya's broader e-government initiative, which has seen the development of various digital platforms for service delivery, including the e-citizen portal. These initiatives have contributed to the enhancement of public sector services by streamlining processes, reducing wait times, and improving service accessibility (Mutuku, 2021). However, challenges persist, including issues related to digital literacy, inadequate infrastructure, and resistance to change, all of which have slowed the full implementation and optimisation of digital systems within public services.

Despite the progress made, digitising manual processes in Kenya's public sector, particularly within the Ministry of Lands and Physical Planning, remains a work in progress. The need for further digital transformation is pressing, especially in terms of optimising efficiency and service delivery. Previous studies indicate that while digitisation has resulted in some gains in public sector efficiency, significant barriers continue to hinder its full potential. Studies by Kauma et al. (2022) show that inconsistent internet access, lack of adequate training for government employees, and fragmented systems remain major challenges to successful digitisation in Kenya. Additionally, the benefits of digital transformation are often unevenly distributed, with rural areas and marginalised communities facing greater difficulties in accessing and utilising digital services (Nyambi & Assey, 2021). This study, therefore, seeks to address these gaps by investigating the effect of digitising manual processes on efficiency and service delivery within the State Department for Lands and Physical Planning in Kenya.

2.0 LITERATURE REVIEW

The section scrutinises the empirical literature on the effect of digitising manual processes in public services, specifically focusing on service delivery. Different studies explore challenges, strategies, and outcomes related to digitisation in various countries, specifically within the framework of public service sectors like land registration, payment systems, and e-governance. This is depicted in Figure 1 below and covers various variables as well as their indicators.

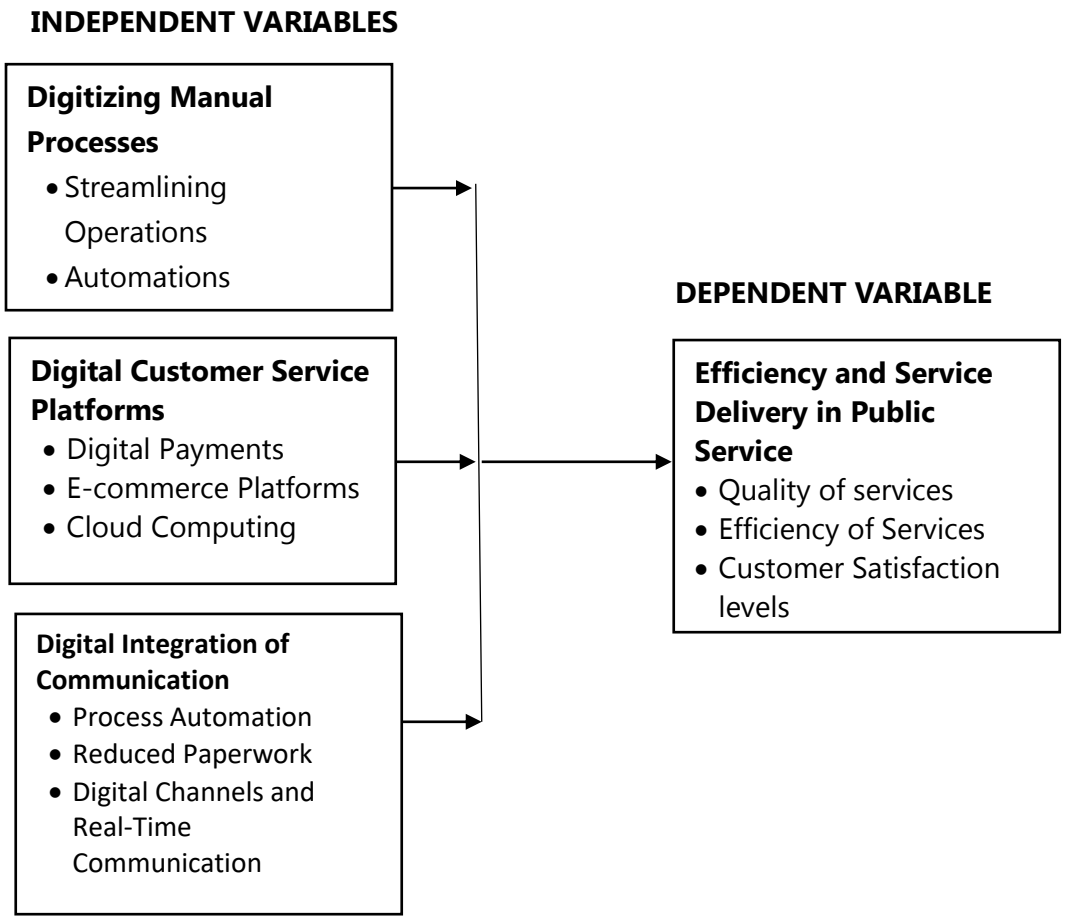

Figure 1: Conceptual Framework Source: Researcher 2025

Digitising Manual Practices

In China, Wang and Ma (2022) conducted a study investigating the effect of the digital revolution on public service delivery, with a main focus on citizens' evaluations of government services. The findings indicated that digitising public service processes improved the efficiency of service delivery, reduced bureaucracy, and increased transparency, leading to an increased level of citizen satisfaction. However, the study also identified significant challenges, including the digital divide and the underdeveloped technological infrastructure in rural areas. The gap in the study lies in the limited focus on the long-term effects of digitalisation on service delivery. Upcoming research could explore the sustainability of digital transformation in public service, predominantly in rural areas where access to technology is still a challenge.

In South Africa, Masilo and Nzama (2023) undertook a study to assess the role of design thinking in improving public service delivery through digitisation. The study aimed to evaluate how government processes in Gauteng were being redesigned with a citizen-centric approach using digital technologies. The findings suggested that digitisation, when combined with a design thinking approach, significantly improved service delivery by making it more accessible and responsive to citizens' needs. It was discovered that the key to successful digital transformation was the involvement of stakeholders in the design

process, confirming that digital systems addressed real-world challenges. A research gap identified in this study is the lack of long-term evaluation on how well the digital systems meet the evolving needs of citizens over time. Future studies could look into the sustainability and adaptability of these systems in changing political and socio-economic contexts.

Efficiency in Public Service

A study by Bakari (2021) found that digital government payment systems boost efficiency in public institutions by speeding up payment processing, reducing errors, and improving financial transparency, ultimately enhancing service delivery.

In Kenya, Mutuku (2021) probed the effect of digitalisation on public service delivery in the Ministry of Lands. The aim of the study was to explore how the digitisation of land registration processes had improved efficiency in service delivery. The results indicated that the digitisation of land records significantly reduced the time required to process land titles, minimised paperwork, and reduced backlogs. Citizens reported increased satisfaction with the speed and accuracy of services. However, challenges such as limited internet access in remote areas and inadequate training for employees were identified as barriers to fully realising the benefits of digitalisation. The study highlighted a gap in research on the effect of digital literacy programs for citizens, signifying that further research could explore how such programs could improve public engagement with digital platforms and enhance service delivery.

Muruguru (2022) examined institution-based factors that improve Information service provision at the Land Registry in Nyandarua County, Kenya. The objective was to investigate how the implementation of digital systems at the Land Registry affected service delivery and operational efficiency. The research found that digitisation significantly improved the promptness and accuracy of land title processing, reduced errors, and increased public satisfaction. However, the study noted that limitations such as inadequate infrastructure and internet access, as well as the need for ongoing employee training, were significant barriers to the full implementation of digital services. A gap identified in the report is the lack of focus on user-centred design in the development of digital systems. Further study could examine how user feedback can be integrated into digital system development to align the systems with citizens' needs.

Service Delivery in Public Service

Kauma et al. (2022) conducted research on the challenges of digitising government processes in Kenya, focusing on public service delivery. The aim of the study was to investigate the barriers to coherent digitisation across policy areas and levels of government. The study established that the lack of harmonisation among various government departments, coupled with insufficient technological infrastructure and training, hindered the successful digitisation of public services. Despite these challenges, the research showed that pilot projects in specific sectors, such as land administration, were successful in improving service delivery. A notable gap in the study is the limited exploration of the role of private-public partnerships in driving digital transformation in government services. Future research could investigate how collaboration between the public and private sectors can enhance digital infrastructure and service delivery.

Taurus and Wamae (2022) conducted a study on the digitisation of land records and service delivery in the Ministry of Lands in Kenya. The study aimed to assess how digitising land records affected the speed and accuracy of land transactions. The findings suggested that digitising land records significantly improved

service delivery by reducing the time required for transactions and minimising errors in land records. However, the study also identified challenges, including the lack of adequate training for staff and the resistance to change (Muruguru, 2022) among employees accustomed to the manual system. The gap in this study lies in the limited focus on the broader social and economic effects of digitising land records. Future studies could explore how these digital initiatives affect economic development and social equity, especially in rural areas.

3.0 METHODOLOGY

The study employed a case study design with the main stakeholders within the State Department for Lands and Physical Planning. The study mainly utilised qualitative data, which were collected from 10 respondents, including two senior management staff, five department heads (from ICT, Customer Service, Finance, Operations, and Business Development), and three long-serving officers with extensive knowledge of the department's operations. All 10 individuals were successfully interviewed, resulting in a 100% response rate. A snowball sampling method was adopted. In addition to primary data, secondary data were acquired from departmental records and reports, which provided supplementary context and corroborative evidence regarding the department's digitisation efforts. The collected qualitative data were evaluated using content analysis. Through content analysis, the researcher identified key themes and relationships between the different variables under study.

4.0 RESULTS AND DISCUSSION

This chapter provides the analysis, findings, and explanation of the data collected for this study, which aimed to assess the effect of digitising manual processes on efficiency and service delivery in the State Department for Lands and Physical Planning, Kenya.

The results of this study clearly indicate that by automating tasks and transferring processes to digital platforms, the department streamlined operations, minimised errors, and enhanced service speed. One department head remarked, "*The digital system has allowed us to eliminate many bottlenecks that were common in the old manual process, making the entire operation smoother and more efficient*." As one of the senior officials noted, "*Although we are not fully integrated yet, we have certainly made great strides and the efficiency of our operations has improved remarkably*." As one customer service manager stated, "*Clients now receive their documents much faster, and the response has been positive because they no longer have to deal with delays that were common before*." As one department head explained, "*Automation has not only reduced the workload on staff but also significantly improved the accuracy of our records, eliminating the costly mistakes that were frequent in manual processes*."

The digitisation of manual processes within the State Department for Lands and Physical Planning has had a major effect on the quality of services provided to citizens. As one department head explained, "*The quality of service has improved immensely because our records are now more accurate and reliable. Citizens no longer face the frustrations of outdated or incorrect information*." One senior manager noted, "*The shift to digital systems has ensured that citizens receive quicker responses, reducing the time it takes to process their land-related requests and improving overall service quality*." The efficiency of services at the State Department for Lands and Physical Planning has markedly improved following the digitisation of manual processes. A department head noted, "*With automation in place, we are now able to handle more*

transactions in less time, allowing us to serve more citizens and reduce backlogs." A senior manager added, "*The improved accuracy of our digital systems has reduced the time spent correcting mistakes, which used to be a significant drain on our resources*." As one senior staff member concluded, "*We are continuously working on improving our systems to make sure that they are more reliable, efficient, and able to meet the growing demand for services*."

The efficiency of services at the State Department for Lands and Physical Planning has markedly improved following the digitisation of manual processes. A department head noted, "*With automation in place, we are now able to handle more transactions in less time, allowing us to serve more citizens and reduce backlogs*." One official remarked, "*The integration of our systems has made coordination between departments seamless, allowing us to address citizen requests faster and with fewer mistakes*."

Customer satisfaction levels have improved significantly with the digitisation of services at the State Department for Lands and Physical Planning. A customer service representative shared, "*The feedback we've received from clients has been overwhelmingly positive. People appreciate being able to track their applications and not having to wait in long queues anymore*." As one official noted, "*For those who live far from our offices, the online system has been a game-changer. They don't have to travel long distances just to apply for land services*." Senior officer pointed out, "*We are aware that not everyone is comfortable with the technology, so we're working on providing more training to help those who struggle with the digital platforms*." *One user shared, "The customer support team has been really helpful in guiding me through the online system. It's reassuring to know that I can always get assistance if needed.*"

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusion: Digitisation transformed the State Department for Lands and Physical Planning in Kenya, enhancing service quality and efficiency through automated processes. Challenges remain in integration, digital literacy, and infrastructure for maximising benefits. Further improvements are needed for system interoperability and supporting citizens with limited digital access.

The study found increased customer satisfaction from faster, transparent services. Online application tracking reduced follow-up needs, but addressing the digital gap, especially in rural areas, is crucial for further improvements. Despite successful digitisation efforts, more investment in infrastructure, training, and inclusivity is necessary for full benefits.

Recommendations: To maintain digitisation successes, focus on enhancing system integration to prevent delays and improve inter-departmental communication. Invest in ongoing staff training for proficient use of technological tools and regular updates on digital advancements.
The department must prioritise expanding digital literacy programs for citizens, especially in rural areas, to ensure wider access and empowerment through digital tools and support services.

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