

Knowledge Preservation Practices on Service Delivery at the Communications Authority of Kenya

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Abstract

Public institutions depend on preserved organizational knowledge to sustain reliable service delivery, yet many, including the Communications Authority of Kenya (CA), lose critical expertise through poor documentation, staff turnover, and fragmented record systems, risking slower response times and inconsistent client-facing services. This study evaluated how knowledge preservation practices influence service delivery at CA's Nairobi headquarters, guided by Nonaka and Takeuchi's Knowledge Spiral (SECI) Theory. It adopted a descriptive survey design and a quantitative approach, targeting all 72 staff comprising 12 management, 40 technical, and 20 administrative employees through a census. Data were collected using structured questionnaires administered via Google Forms and key informant interviews; 64 respondents participated, yielding an 88.89% response rate. Descriptive statistics, Pearson correlation, and regression analysis addressed the quantitative data, while thematic analysis addressed the interview data. Knowledge preservation had a strong, positive, and statistically significant effect on service delivery (Beta = 0.781, $p = 0.000$), explaining 63.5% of the variance ($R^2 = 0.635$). Staff rated ease of information retrieval, accuracy, and timeliness as the strongest aspects of knowledge preservation, and digitized preservation improved turnaround times, reduced duplication of client requests, strengthened complaint resolution, and built stakeholder trust. The study concluded that knowledge preservation, particularly accessible systems, accurate records, and regularly updated knowledge, significantly enhances service delivery, consistent with the Combination stage of the SECI Model. The study recommends that CA's Information and Communication Technology Directorate strengthen knowledge preservation by improving system accessibility, retrieval speed, and processing capacity, and by adding analytical tools for locating relevant past cases. The study's novel contribution lies in extending the SECI Model to a professional regulatory context, showing that the Combination stage of knowledge conversion, rather than tacit-to-tacit exchange, is decisive for service delivery outcomes in Kenyan public institutions.

Keywords: *Knowledge preservation, service delivery, knowledge management, Communications Authority of Kenya, SECI Model, Nairobi.*

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1. Introduction

Service delivery is the process through which organizations provide services efficiently and in line with expected standards (Akram et al., 2022; Chanda, 2022). In public administration, it involves citizen–organization interactions (Ndema, 2022) and reflects how organizations coordinate resources and processes to achieve effective outcomes (Nolte et al., 2022). Common indicators include timeliness, accuracy, accessibility, customer retention, and efficiency (Teshome et al., 2020). Timeliness emphasizes speed and responsiveness; accuracy concerns correctness and compliance (Akanbi et al., 2024; Luo et al., 2022); accessibility examines ease of access; customer retention reflects satisfaction (Kärpänen, 2025; Singh et al., 2023); and efficiency focuses on resource use and consistency (Bakare et al., 2024).

Effective service delivery in public institutions depends on leadership, staff competence, culture, and resources. Knowledge management is also critical, influencing how information is created, shared, utilized, and preserved (Asad et al., 2021). Knowledge creation generates new ideas; sharing promotes teamwork (Bag et al., 2021; Ahmed et al., 2020); utilization improves decision-making; and preservation ensures continuity and access to institutional knowledge (Rubel et al., 2025; Choi et al., 2020). Together, these practices strengthen organizational capacity and service outcomes (Abass et al., 2021).

Knowledge preservation involves storing, organizing, and enabling easy retrieval of knowledge (Choi et al., 2020). It ensures continuity and informed decision-making despite staff turnover. Effective preservation is reflected in high system usage, ease of access, user satisfaction, and reliability of stored information.

Globally, knowledge management supports service delivery in communications regulators. In Germany, the Bundesnetzagentur uses data collection, analysis, and market reporting for evidence-based regulation (Knorr & Eisenkopf, 2022; Bundesnetzagentur, 2023; Altaieb & Rajnai, 2024), though it still faces challenges in managing rapid technological change and data integration (Kirchner et al., 2024). In China, the Ministry of Industry and Information Technology uses centralized regulatory data and feedback systems to improve services (Mueller & Farhat, 2022; Wu & Rajnai, 2024), but regional implementation gaps persist (Zhang & Eimicke, 2020).

Regionally, South Africa's Independent Communications Authority uses electronic records and business intelligence, but capacity constraints limit performance (Ramahlo et al., 2022; De Vega, 2023). Rwanda's Utilities Regulatory Authority uses digitized systems and strategic planning, yet struggles to sustain system upgrades and staff capacity (RURA, 2021).

In Kenya, digitization has improved service delivery, though governance challenges remain (Kumar et al., 2022). The Communications Authority of Kenya employs digital platforms, repositories, workflow automation, and sector reporting to enhance transparency and decision-making (CA, 2025), and has embedded knowledge management in its 2023–2027 Strategic Plan (Communications Authority of Kenya, 2024). However, uneven digital adoption, weak monitoring, resource constraints, departmental silos, skills gaps, and differing digital readiness hinder effectiveness (Kinuthia et al., 2022; Ogoti & Namande, 2023; Nyangena et al., 2021).

This study evaluates how knowledge preservation practices influence service delivery at the Communications Authority of Kenya, focusing on system usage, ease of access, user satisfaction, and reliability. The findings aim to provide evidence on how preservation contributes to effective and consistent service delivery.

1.1 Problem Statement

The Communications Authority of Kenya is mandated to provide timely, efficient oversight of the telecommunications and broadcasting sector, ensuring operators meet regulatory standards and consumers receive reliable, affordable, high-quality services. This mandate depends on how well the Authority preserves knowledge; inadequate preservation erodes institutional memory, weakens consistent corrective action, and undermines service quality and timeliness. The 2023–2024 Annual Report shows overall mobile operator compliance at 64.9 percent, below the 80 percent threshold, with Telkom Kenya at 52 percent, Airtel at 73 percent, and Safaricom at 79 percent (Communications Authority of Kenya, 2024). Consumer satisfaction is similarly low, with only 29.3 percent of complainants satisfied with how issues were handled (Owino, 2024), showing that enforcement is not producing the required outcomes.

Prior studies on regulatory performance in Kenya have not linked knowledge preservation to service delivery at the Authority: M'mutiga et al. (2025) examined leadership and governance, Odanga (2024) strategy formulation, Getembe (2021) IT adoption as a performance enabler, and Kiogora and Ngeno (2024) customer satisfaction and service standards. This leaves a critical dimension of regulatory performance unexamined. This study therefore evaluated the influence of knowledge preservation practices on service delivery at the Communications Authority of Kenya.

1.2 Objective of the Study

This study aimed to evaluate how knowledge preservation practices influence service delivery at the Communications Authority of Kenya.

2. Literature Review

2.1 Theoretical Review

Nonaka and Takeuchi proposed the Knowledge Spiral Theory, also known as the SECI Model, in 1996. The theory explains the dynamic interaction between tacit and explicit knowledge in organizations and identifies four key processes through which organizations create knowledge: Socialization, Externalization, Combination, and Internalization. Socialization means people gain hidden knowledge by working together. Externalization occurs when people explain this hidden knowledge clearly in words or ideas. Combination happens when different pieces of clear knowledge emerge to create new understanding. Internalization is the process by which individuals absorb this clear knowledge and use it to develop their own abilities. (Nonaka & Takeuchi, 1996).

The SECI Model is relevant to this study because it explains how organizations preserve knowledge. Preserving knowledge through documentation, storage, and transfer supports organizational learning, coordination, and service delivery. The theory therefore provides a framework for examining how knowledge preservation practices influence service delivery at the Communications Authority of Kenya.

2.2 Empirical Review

Muleke et al. (2023) found that knowledge retention practices such as succession planning, mentoring, coaching, and engagement of retired employees preserved critical expertise and improved organizational capacity and service delivery. Similarly, Kisang (2021) found that stored knowledge supported retrieval, daily task application, decision-making, and operational efficiency. Thumbi et al. (2025) established that structured knowledge storage improves access to organizational information, decision-making, and continuous learning. Owolabi, K.A. et al. (2022) found that video and audio recordings supported knowledge preservation, although inadequate funding limited effective preservation. Cheruiyot et al. (2020) also identified poor ICT infrastructure and limited budgetary support as challenges to knowledge storage and access. Paliwal and Siwach (2024) found that digital media provides a structured platform for knowledge preservation. Overall, these findings show that structured storage, retention, documentation, and accessible knowledge systems support organizational continuity, decision-making, efficiency, and service delivery. However, evidence on knowledge preservation and service delivery within professional regulatory organizations remains limited, creating a contextual and empirical gap that the current study addresses at the Communications Authority of Kenya.

3. Materials and Methods

This study adopted a descriptive survey research design. This design was appropriate because it enabled the study to examine existing knowledge management practices at the Communications Authority of Kenya. The study also examined service delivery outcomes, including timeliness, accuracy, accessibility, customer retention, and operational efficiency. The target population comprised 12 management staff, 40 technical staff, and 20 administrative staff at the Communications Authority of Kenya headquarters who were directly involved in knowledge management practices and service delivery activities. The study employed two primary data collection instruments: questionnaires and interviews. These instruments were selected to provide a comprehensive understanding of how knowledge management practices influenced service delivery within the Communications Authority. The researcher obtained an introduction letter from the university before data collection. The researcher administered online questionnaires using Google Forms to the selected respondents and conducted interviews with selected staff directly involved in knowledge management practices and service delivery. Respondents were informed about the purpose of the study, assured of confidentiality, and asked to provide voluntary consent before participating. The researcher analyzed quantitative data using descriptive and inferential statistics. Descriptive statistics included means, median, standard deviations, and frequencies. Inferential analysis involved correlation and linear regression to examine the relationship between the independent variable and service delivery (Mweshi & Muhyila, 2024). The study applied the following regression model:

$$Y = \alpha + \beta_1 X + \varepsilon$$

Where: Y = Service delivery; X = Knowledge preservation; α = Constant; β_1 = Regression coefficient; and ε = Error term. The model's significance was tested at a 95% confidence level, with a p-value below 0.05 indicating statistical significance. The findings were presented using tables and charts.

The Kenya Methodist University (KeMU) Ethics Committee approved the study, and the researchers obtained an introduction letter from the Directorate of Postgraduate Studies and a research permit from NACOSTI. Participants were informed about the study and participated voluntarily after giving informed consent. The study maintained confidentiality, anonymity, privacy, and the right to withdraw throughout. The study securely stored data and used it strictly for academic purposes.

4. Results and Discussion

Questionnaires were distributed to 72 staff; response rates were 97.5% (39/40) for technical staff, 80% (16/20) for administrative staff, and 75% (9/12) for management staff, for a total of 64/72 (88.89%), which is adequate per Sataloff and Vontela (2021). Respondents were 57.81% male, 42.19% female; educated to master's (40.63%), bachelor's (31.25%), doctorate (20.31%), and diploma (7.81%) level; with 4–6 years' service (50.00%), 7–11 years (26.56%), 1–3 years (17.19%), and under one year (6.25%); and comprising technical (60.94%), administrative (25.00%), and management (14.06%) staff, reflecting diverse backgrounds relevant to the study. Overall, the respondents had diverse educational and experience levels, and job roles, providing relevant perspectives on knowledge management practices and service delivery at the Communications Authority of Kenya.

4.1 Findings on Knowledge Preservation

The study aimed to establish the influence of knowledge preservation practices on service delivery at the Communications Authority of Kenya. The researcher asked respondents to indicate their level of agreement with statements describing knowledge preservation practices at CA. This was done using a scale of 1-5, where: 1 – Strongly disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly agree. Findings are shown in Table 1.

Table 1: Descriptive Statistics for Knowledge Preservation

Statement	SD	D	N	A	SA	Mean	Std Dev
Employees regularly use the knowledge management system in their daily work	0(0%)	3(5%)	3(5%)	47(73%)	11(17%)	4.03	0.64
The organization's knowledge management system is easily accessible to all staff	0(0%)	1(2%)	5(8%)	52(81%)	6(9%)	3.98	0.49
Staff can quickly retrieve information from the knowledge management system when needed	0(0%)	1(2%)	6(9%)	44(69%)	13(20%)	4.08	0.60
The knowledge management system contains relevant and organized information for employees	1(2%)	1(2%)	8(12%)	45(70%)	9(14%)	3.94	0.69
Employees are satisfied with the functionality of the knowledge management system	1(2%)	2(3%)	5(8%)	45(70%)	11(17%)	3.98	0.72
The knowledge management system reliably stores organizational knowledge without errors	1(2%)	1(2%)	7(11%)	47(73%)	8(12%)	3.94	0.66
Staff frequently refer to the system for guidance in their work tasks	1(2%)	2(3%)	8(12%)	47(73%)	6(9%)	3.86	0.69
The organization ensures continuous maintenance and updating of the knowledge management system	1(2%)	1(2%)	6(9%)	47(73%)	9(14%)	3.97	0.67
Average						3.97	0.40

Quantitatively, "staff can quickly retrieve information from the knowledge management system when needed" scored highest ($M = 4.08$, $SD = 0.60$; 57, 89.1% agreed/strongly agreed), followed by "employees regularly use the knowledge management system in their daily work" ($M = 4.03$, $SD = 0.64$; 58, 90.6%) and "the organization's knowledge management system is easily accessible to all staff" ($M = 3.98$, $SD = 0.49$; 58, 90.6%). This shows staff readily retrieve and use preserved knowledge through an accessible system, per Modiba and Marutha (2023), who treated ease of access as a core dimension of knowledge preservation; Azhar (2024), who measured preservation through usage rate; and Kumar and Raman (2022), who held that preservation keeps critical information available so organizations maintain quality despite staff or process changes.

The lowest-scoring item was "staff frequently refer to the system for guidance in their work tasks" ($M = 3.86$, $SD = 0.69$; 8, 12.5% Neutral; 53, 82.8% agreed/strongly agreed), followed by "the knowledge management system contains relevant and organized information for employees" ($M = 3.94$, $SD = 0.69$; 54, 84.4% agreed; 8, 12.5% Neutral) and "the knowledge management system reliably stores organizational knowledge without errors" ($M = 3.94$, $SD = 0.66$; 55, 85.9% agreed; 7, 10.9% Neutral). This suggests the Authority implements these aspects less consistently, per Riskin et al. (2025) on accuracy, completeness, and trustworthiness as a distinct, harder-to-guarantee measure of preservation, and Mabunda and Plessis (2022) on user satisfaction as whether preserved knowledge meets employees' needs. Kisang (2021) similarly found stored knowledge supports retrieval and daily application, so the reserved ratings on regular reference mark room for deeper preservation.

Asked how they navigate the system daily, respondents raised three themes: access and retrieval, system improvement and maintenance, and digitization/integration for service efficiency. Staff described consulting the system for new cases and developing personal shortcuts:

"I check it for the relevant policy whenever I am handling a new type of request." (Respondent 46)

"I have bookmarked the sections I use frequently, so I go straight to them." (Respondent 42)

This shows preservation's value depends on retrieval, not just storage, per Modiba and Marutha (2023) on accessibility and Kisang (2021) on retrieval and daily application.

On desired improvements, respondents wanted the system to be more current, faster, and responsive:

"A dashboard showing recently added or recently amended documents." (Respondent 17)

"Faster loading speeds; the system hangs during peak hours." (Respondent 2)

"Regular user feedback surveys so that ICT can improve the system continually." (Respondent 32)

This indicates the system is functional but needs continuous improvement — per Riskin et al. (2025) on accuracy and trustworthiness, and Mabunda and Plessis (2022) linking satisfaction to whether stored knowledge meets work requirements. This qualitative evidence explains the high overall rating alongside lower scores on regular reference, relevance, and reliability.

Key informants linked preservation directly to service outcomes, noting shortened turnaround times and reduced duplication through digitized workflows:

"Turnaround times on license applications have come down since we digitized the workflow. What took weeks of file shuffling now moves through the system with an audit trail." (KI-01)

"It has cut duplication. We stopped collecting the same information from clients twice." (KI-06)

The added audit trail improves traceability, supporting Kumar and Raman (2022) on preservation, ensuring information remains available despite staff or process changes, and Kisang (2021) on stored knowledge supporting retrieval and daily application. This demonstrates a direct link between knowledge preservation, process efficiency, and client service.

Asked what would further improve effectiveness, informants indicated current systems provide storage but need stronger integration, search, and analytics:

"A single sign-on and a proper search engine across all the repositories." (KI-06)

"We need analytics layered on top of storage. Right now, our systems are digital filing cabinets, but filing cabinets all the same. If they could surface patterns, flag anomalies, and suggest precedents automatically, the same officers would deliver far more. The technology exists; we simply have not invested in the intelligence layer." (KI-03)

This suggests the Authority has moved from physical to digital storage but has not exploited its analytical value, extending Kumar and Raman (2022) on retaining knowledge for continuity and quality, and complementing Riskin et al. (2025) on accuracy and trustworthiness for reliable decision-making.

4.2 Findings on Service Delivery

The researcher further sought respondents' perspectives on service delivery at the CA, and the findings are shown in Table 2. This was done using a 1-5 scale, where: 1 – Strongly disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly agree. Table 2 displays the findings.

Table 2: Descriptive Statistics for Service Delivery

Statement	SD	D	U	A	SA	Mean	Std Dev
Services in the organization are provided within the expected timeframes	0(0%)	2(3%)	2(3%)	49(77%)	11(17%)	4.08	0.57
Tasks and requests are completed accurately according to established procedures	0(0%)	0(0%)	5(8%)	46(72%)	13(20%)	4.12	0.52
Clients can easily access the services offered by the organization	0(0%)	1(2%)	2(3%)	53(83%)	8(12%)	4.06	0.47
The organization maintains up-to-date records of client interactions and feedback	1(2%)	2(3%)	1(2%)	49(77%)	11(17%)	4.05	0.68
Operational processes are clearly defined and consistently followed by staff	0(0%)	1(2%)	4(6%)	48(75%)	11(17%)	4.08	0.54
The organization monitors and ensures service delivery standards are maintained	1(2%)	0(0%)	10(16%)	39(61%)	14(22%)	4.02	0.72

Clients have convenient channels for requesting and receiving services	1(2%)	2(3%)	6(9%)	42(66%)	13(20%)	4.00	0.76
There are mechanisms in place to retain clients and maintain ongoing engagement	0(0%)	1(2%)	9(14%)	40(62%)	14(22%)	4.05	0.65
Resources and workflows are well organized	2(3%)	3(5%)	2(3%)	46(72%)	11(17%)	3.95	0.82
Average						4.05	0.40

Quantitatively, "tasks and requests are completed accurately according to established procedures" scored highest ($M = 4.12$, $SD = 0.52$; 59, 92.2% agreed/strongly agreed, none disagreed), followed by "services in the organization are provided within the expected timeframes" ($M = 4.08$, $SD = 0.57$; 60, 93.8%) and "operational processes are clearly defined and consistently followed by staff" ($M = 4.08$, $SD = 0.54$; 59, 92.2%). Respondents thus rate the Authority's accuracy and timeliness highly, per Nadeem et al. (2025), who identified timeliness and accuracy as core service delivery factors that raise stakeholder satisfaction and trust, and Das (2024), who held that service delivery centers on orchestrating resources and personnel to deliver client value.

The lowest-scoring item was "resources and workflows are well organized" ($M = 3.95$, $SD = 0.82$, the widest spread; 5, 7.8% disagreed; 2, 3.1% Neutral; 57, 89.1% agreed/strongly agreed), followed by "clients have convenient channels for requesting and receiving services" ($M = 4.00$, $SD = 0.76$; 55, 85.9% agreed; 6, 9.4% Neutral) and "the organization monitors and ensures service delivery standards are maintained" ($M = 4.02$, $SD = 0.72$; 10, 15.6% Neutral; 53, 82.8% agreed). This shows the Authority manages resource organization and client-channel convenience less consistently than accuracy and timeliness. The reserved view on resource organization corroborates Nyangoma et al. (2024), who treated operational efficiency — optimal resource use and streamlined workflows — as a distinct driver of sustainable service provision. The lower rating for client channels aligns with Djatmiko et al. (2025), who linked convenient platforms to inclusivity and broader engagement, highlighting where the Authority can widen client access. The composite mean for service delivery was 4.05 ($SD = 0.40$), the highest of all five constructs, with a narrow spread indicating consistent views across respondents.

Asked what could improve accuracy, accessibility, customer retention, and operational efficiency, respondents raised three themes: systematic use of client feedback, simplification and accessibility of services, and knowledge-based service quality and stakeholder trust:

"The organization should conduct regular client satisfaction surveys and act on the findings." (Respondent 13)

"The organization should establish a stronger customer relationship management system to track client feedback as a source of information." (Respondent 27)

"The processes of access to information should be reviewed continuously to remove unnecessary steps." (Respondent 3)

These responses show employees see client feedback as a key source of knowledge for improving service delivery: surveys reveal where clients struggle, a stronger CRM system helps preserve information on past interactions, and removing unnecessary steps simplifies access — consistent with Djatmiko et al. (2025) on convenient access driving wider

engagement. The qualitative evidence suggests systematic use of client feedback could improve accessibility, responsiveness, and long-term stakeholder engagement.

Key informants — organizational officials interviewed one-on-one — linked knowledge management to consumer protection, public confidence, and stakeholder trust:

"The clearest impact is on consumer protection. Because we now hold and use a full history of complaints, we can hold operators to account with evidence. Resolution rates have improved and, more importantly, the same problems recur less often because we address them at the root. That is knowledge management translating into a better experience for the ordinary subscriber." (KI-03)

Access to complaint histories lets officers spot recurring problems, support decisions with evidence, and address root causes, improving service effectiveness through more targeted responses—agreeing with Nadeem et al. (2025) that accuracy links to stakeholder confidence.

"Public confidence in the sector partly rests on how well we use what we know. When we act on knowledge, the market sees a regulator that is on top of things." (KI-02)

This shows knowledge utilization extends beyond internal efficiency to shape stakeholder perceptions: decisions grounded in organizational knowledge make the regulator appear informed, consistent, and responsive, supporting Nadeem et al. (2025) on accurate outcomes building satisfaction and trust.

"Services are faster and more predictable for the licensees we regulate. Stakeholders trust our decisions more when they see they rest on data. That trust is itself a service outcome." (KI-01)

This shows how knowledge management supports service delivery through faster processing, greater predictability, and evidence-based decisions, aligning with Nyangoma et al. (2024) on efficient processes and resource use supporting sustainable service provision.

Overall, knowledge management has raised service quality at the Authority: holding and using a full complaint history has improved resolution rates, reduced recurring problems, and strengthened stakeholder trust, confirming the high quantitative service delivery rating ($M = 4.05$) and supporting Nadeem et al. (2025) on accuracy reducing errors and building trust. The findings also point to improvement areas, since respondents called for systematic client feedback and simpler access — aligning with the lower ratings on convenient client channels ($M = 4.00$) and resource organization ($M = 3.95$), and echoing Wu and Rojniruttikul (2023), who linked customer retention to perceived quality and reliability, so acting on client feedback would strengthen the Authority's long-term stakeholder relationships.

4.3 Correlation Analysis

A correlation analysis was conducted to establish the direction and strength of the relationship between knowledge preservation and service delivery. Table 3 presents the findings.

Table 3: Correlation Analysis

		Service Delivery	Knowledge Preservation
Service Delivery	Pearson Correlation	1	
	Sig. (2-tailed)		
Knowledge Preservation	Pearson Correlation	.797**	1
	Sig. (2-tailed)	0.000	

Table 3 shows that the correlation analysis established a strong, positive, and statistically significant connection between knowledge preservation and service delivery ($r = 0.797$, $p = 0.000 < 0.05$). This outcome highlights the relevance of effective knowledge preservation in ensuring continuity, informed decision-making, and consistent service delivery at the Communications Authority of Kenya.

4.4 Regression Analysis

This analysis examined how knowledge preservation influences service delivery at the Communications Authority of Kenya. Table 4 presents the model summary, Table 5 presents the model fitness (ANOVA), and Table 6 presents the regression coefficients.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.797 ^a	0.635	0.629	0.24086	2.174

^a Predictors: (Constant), Knowledge Preservation Practices

Table 5 shows that knowledge preservation practices significantly predict service delivery at the Communications Authority of Kenya. The coefficient of determination (R^2) was 0.635, indicating that knowledge preservation practices explain 63.5% of the variation in service delivery. The remaining 36.5% is attributed to other variables not examined in this study.

Table 5: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.247	1	6.247	107.689	.000 ^b
Residual	3.597	62	0.058		
Total	9.844	63			

^b Dependent Variable: Service Delivery

The ANOVA results in Table 5 show that the model assessing the relationship between knowledge preservation practices and service delivery is statistically significant. The computed F-value of 107.689 is significant at the 5% significance level, confirming the model's robustness in explaining variations in service delivery. The p-value of 0.000 falls below the 0.05 threshold, further validating the regression model's significance. This result shows that knowledge preservation practices meaningfully explain variations in service delivery at the Communications Authority of Kenya.

Table 6: Regression Coefficients

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
		B		Beta		
1	(Constant)	0.941	0.301		3.131	0.003
	Knowledge preservation	0.781	0.075	0.797	10.377	0.000

^a Dependent Variable: Service Delivery

The regression coefficients in Table 6 show how knowledge preservation practices influence service delivery at the Communications Authority of Kenya. The constant value of 0.941 ($p = 0.003$) represents the baseline level of service delivery when knowledge preservation practices are held at zero.

Knowledge preservation practices emerged as a significant predictor of service delivery ($\beta = 0.781$, $p < 0.05$). This implies that a unit improvement in knowledge preservation practices is associated with a 0.781-unit improvement in service delivery. This finding supports Kisang (2021), who showed that knowledge stored in repositories supported retrieval and application in daily tasks, which strengthened organizational performance and service outcomes.

The regression model established from these results is as follows:

$$\text{Service Delivery} = 0.941 + 0.781 (\text{Knowledge Preservation Practices}) + \varepsilon$$

5. Conclusion

The study concluded that knowledge preservation practices contribute to effective service delivery at the Communications Authority of Kenya. Timely access to information, accurate records, accessible systems, and regularly updated knowledge help staff complete tasks correctly, follow consistent procedures, and maintain service standards. Knowledge preservation also supports informed decision-making, effective complaint resolution, stakeholder engagement, and trust. This finding is consistent with the Combination stage of Nonaka's SECI Model, where explicit knowledge is documented, stored, organized, and integrated into institutional knowledge.

6 Recommendations

The study established that knowledge preservation practices significantly influence service delivery at the Communications Authority of Kenya. The Information and Communication Technology Directorate should strengthen knowledge preservation by improving the accessibility, reliability, and retrieval of stored organizational knowledge. The Directorate should also increase the knowledge management system's processing capacity and introduce analytical functions that help staff identify relevant precedents and patterns in stored information. This would support faster decision-making, improve operational consistency, and strengthen service delivery.

The study focused on a single regulatory body, which limits how far the results generalize to other institutions. Future research could replicate the study across other public regulators or state agencies in Kenya to test the relationship between knowledge management and service delivery in different institutional settings. Such work would establish whether the dominance of knowledge preservation observed here is particular to the Authority or common across the public sector. The study adopted a descriptive design and measured relationships at a single point in time. Future research could use a longitudinal design to track how knowledge preservation practices and service delivery change over time, strengthening the basis for inferring how one influences the other. This would address the limitation that a cross-sectional study cannot capture how these relationships develop.

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