ISSN: 2287 – 80X1
Volume 14, Number 2, 2026
Innovative Journal of Social Science, Arts and Management

The University of Sydney, Camperdown NSW 2006, Australia
Journal Homepage:www.bwjournal.org

STRATEGIC DATA GOVERNANCE: THE ADMINISTRATIVE EFFICIENCY TRIANGULATION IN LOCAL GOVERNMENT COUNCILS

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Abstract
This study examined strategic data governance and administrative efficiency in local government councils in Rivers State, Nigeria. The study adopted a descriptive correlational survey design. The population comprised the twenty-three Local Government Councils in Rivers State, with study elements comprising principal management officers, specifically the Head of Local Government Administration, the Head of Personnel Management, the Head of Finance and Supply, the Head of Budget and Economic Planning, and the Head of the Information and Communication Technology Unit, in each of the twenty-three local government councils in Rivers State, giving a total of one hundred and fifteen principal officers as respondents, all of whom were enumerated in a census. A structured questionnaire, validated by experts in office technology and management and subjected to a reliability test using Cronbach's alpha, was used to collect data on three dimensions of strategic data governance, namely data quality management, data security and compliance, and data stewardship and accountability, and their relationship with administrative efficiency. Data were analysed using descriptive statistics and the Pearson Product Moment Correlation Coefficient (PPMC) at a 0.05 level of significance. Findings revealed strong, positive, and statistically significant relationships between all three dimensions of strategic data governance and administrative efficiency, leading to the rejection of the three null hypotheses formulated for the study. The study concludes that strategic data governance is a decisive determinant of administrative efficiency in local government administration and recommends the institutionalisation of formal data governance structures, continuous capacity building of principal management officers, and the deployment of secure digital data management systems across local government councils in Rivers State.

Keywords: Strategic Data Governance, Administrative Efficiency, Local Government Councils, Data Stewardship, Data Security

1.0 Introduction
Local government administration occupies a foundational position in the governance architecture of Nigeria as the tier of government closest to the citizenry and the first point of contact for the delivery of essential public services. The efficiency with which local government councils discharge their statutory responsibilities depends substantially on the quality, integrity, and accessibility of the information and data upon which administrative decisions are made. In an era characterised by the proliferation of digital records, biometric registers, revenue databases, and electronic correspondence, local government councils are increasingly custodians of large volumes of data whose value can only be realised through deliberate and structured governance arrangements.
Strategic data governance refers to the systematic exercise of authority, control, and decision rights over an organisation's data assets, encompassing the policies, standards, roles, and accountability

structures that ensure data are accurate, secure, consistent, and usable in support of organisational objectives (Acuña et al., 2026; Davidson et al., 2023). Rather than a purely technical undertaking, strategic data governance is a management function that aligns data practices with institutional strategy, regulatory obligations, and service delivery goals. Administrative efficiency, on the other hand, denotes the extent to which an organisation utilises its human, material, and informational resources to achieve intended administrative outcomes with minimal waste, delay, and error (Adeyemi, 2020; Oloyede & Adeniran, 2023).

Globally, the linkage between structured data practices and public sector performance has attracted growing scholarly and policy attention. The Organisation for Economic Co-operation and Development, in its Digital Government Index, observes that countries with coherent data governance arrangements record measurably higher levels of administrative transparency and service responsiveness than those without such arrangements (OECD, 2023). Similarly, the Estonian experience demonstrates how disciplined data governance, anchored on interoperable digital registries, transformed public administration from a paper-dependent bureaucracy into one of the most efficient e-governance systems in the world (Espinosa & Pino, 2024). Comparable evidence from Tanzania's Kinondoni and Ubungo municipalities shows that structured electronic governance arrangements improved accountability and reduced administrative bottlenecks at the local government level (Temba, 2025).

Within Nigeria, however, records and information practices at the local government level remain largely manual, fragmented, and vulnerable to loss, duplication, and unauthorised alteration (Abada et al., 2018; Abdullahi et al., 2016; Iwhiwhu, 2020). Studies on records management in Nigerian local government councils have consistently reported weak custodial arrangements, absence of standardised retention policies, and poor staff capacity for handling both physical and electronic records (Abdulrahman, 2017; Igbokwe-Ibeto, 2013). These deficiencies undermine the ability of council administrations to make timely and accurate decisions, process citizen requests promptly, and maintain the institutional memory necessary for continuity of governance (Adebayo, 2018; Adebayo, 2023).

Rivers State, with its twenty-three local government areas, exemplifies these challenges. Despite policy pronouncements on digital transformation at the state level and the establishment of an information and communications technology department to advance electronic governance (Rivers State Government, 2026), council-level administration continues to rely heavily on manual registries, disparate record-keeping practices, and limited data security safeguards. The National Digital Economy and E-Governance Act, 2024, and the Nigeria Data Protection Act, 2023, provide a national regulatory scaffold for electronic records and data protection (Federal Ministry of Communications, Innovation and Digital Economy, 2024; National Assembly of the Federal Republic of Nigeria, 2023), yet the extent to which local government councils have translated these frameworks into operational data governance structures remains empirically underexamined, particularly in Rivers State.

It is against this background that the present study interrogates the relationship between strategic data governance, disaggregated into data quality management, data security and compliance, and data stewardship and accountability, and administrative efficiency in local government councils in Rivers State.

Statement of the Problem

Local government councils in Rivers State continue to grapple with delayed service delivery, inconsistent records, duplicated files, and weak audit trails, all of which point to underlying deficiencies in how data and information are governed at the council level. Citizens seeking certificates of origin, tenement rate assessments, and other statutory services frequently encounter delays traceable to misplaced files, uncoordinated registries, and the absence of a single reliable

source of administrative data (Abada et al., 2018; Adebayo, 2018). Where data exist, they are often held in silos across departments with limited interoperability, exposing councils to duplication of effort, inconsistent reporting, and difficulty in reconciling revenue and personnel records.
Beyond operational inefficiency, weak data governance exposes local government councils to risks of unauthorised data access, loss of sensitive citizen information, and non-compliance with national data protection obligations (National Assembly of the Federal Republic of Nigeria, 2023). Corruption and weak accountability structures further compound the problem, as poorly governed data create opportunities for manipulation of records and diversion of resources (Omoniyi & Akintoye, 2024; Transparency International, 2023; World Bank, 2023). While considerable scholarly attention has been devoted to e-governance and public service delivery at the national and state levels in Nigeria (Sorkaa, 2026; Sukare & Abdullahi, 2025), and to records management practices in local government councils in other states such as Ogun and Oyo (Abdullahi et al., 2016), there remains a paucity of empirical, quantitatively grounded studies that specifically examine strategic data governance as a multidimensional construct in relation to administrative efficiency within local government councils in Rivers State. This study addresses that gap.

2.0 Literature Review

Conceptual Review

Strategic Data Governance

Strategic data governance is conceptualised as the framework of decision rights, accountabilities, standards, and processes through which an organisation manages its data assets to support strategic objectives, ensure compliance, and generate value (Acuña et al., 2026). It extends beyond routine data management to embed data-related decisions within the broader strategic direction of the organisation, addressing questions of who may access, modify, and dispose of data, and under what conditions. Bližnák et al. (2024), in a systematic review of data governance literature, note that the concept has evolved from a narrowly technical discipline concerned with data storage and retrieval into a strategic management function that intersects with organisational culture, regulatory compliance, and value creation. Three dimensions of strategic data governance are adopted for this study, namely data quality management, data security and compliance, and data stewardship and accountability.
Data quality management refers to the policies and practices that ensure data are accurate, complete, consistent, and timely, thereby supporting reliable administrative decision-making (Acuña et al., 2026). Data security and compliance denotes the safeguards, protocols, and regulatory adherence mechanisms that protect data from unauthorised access, loss, or misuse, consistent with statutory obligations such as the Nigeria Data Protection Act, 2023 (National Assembly of the Federal Republic of Nigeria, 2023). Data stewardship and accountability captures the assignment of clear roles and responsibilities for the custodianship of data, including the designation of records officers and the maintenance of audit trails that support transparency (Igbokwe-Ibeto, 2013).

Administrative Efficiency

Administrative efficiency describes the capacity of an organisation to convert available resources, including information, into timely, accurate, and cost-effective administrative outcomes (Adiele & Alikornwo, 2024; Nwinyokpugi & Alikornwo, 2022; Adeyemi, 2020). In the context of local government administration, administrative efficiency manifests in the speed of processing citizen requests, the accuracy of records used for decision-making, the effective utilisation of personnel and financial resources, and the strength of accountability mechanisms that deter waste and malpractice (Oloyede & Adeniran, 2023). Administrative inefficiency in Nigerian local government councils has been attributed variously to bureaucratic bottlenecks, corruption, weak institutional capacity, and poor records management (Adebayo, 2018; Omoniyi & Akintoye, 2024).

Theoretical Framework

This study is anchored on the Technology-Organization-Environment (TOE) framework, complemented by Institutional Theory.

The Technology-Organization-Environment framework, originally propounded by Tornatzky and Fleischer (1990), explains the adoption and institutionalisation of technological and administrative innovations, such as data governance systems, through the interaction of three contextual dimensions: the technological context, comprising the availability and readiness of relevant tools and infrastructure; the organisational context, comprising leadership support, staff competence, and internal structures; and the environmental context, comprising regulatory pressure, inter-governmental relationships, and external stakeholder expectations. The framework has been widely applied to explain digital transformation and data governance adoption in public sector organisations, demonstrating that technological readiness alone is insufficient without corresponding organisational capability and a supportive environmental context. This framework is relevant to the present study because it accounts for why some local government councils may adopt data governance structures more successfully than others, depending on the interplay of available technology, internal organisational readiness, and external regulatory pressure such as that imposed by national data protection legislation.

Institutional Theory complements the TOE framework by explaining how organisations conform to coercive, normative, and mimetic pressures from their institutional environment in shaping administrative practice. Coercive pressures arise from regulatory bodies and statutory obligations, normative pressures arise from professional standards and training, while mimetic pressures arise from the tendency of organisations to imitate practices perceived as successful in similar organisations. Applied to local government councils in Rivers State, Institutional Theory suggests that the adoption of strategic data governance practices may be driven as much by regulatory compliance requirements and professional norms in records and information management as by purely technical or economic considerations. Together, these two theories provide a robust lens for understanding both the internal organisational dynamics and the external institutional pressures that shape strategic data governance practices in local government administration.

Empirical Review

A growing body of international literature affirms the positive relationship between structured data governance and organisational performance. Acuña et al. (2026), in a systematic literature review of thirty-eight empirical studies published between 2017 and 2025, identified organisational, cultural, technical, quality, and regulatory dimensions as the recurrent challenges shaping data governance implementation and its downstream effect on organisational value creation. Davidson et al. (2023) similarly argue that data governance has become central to addressing grand societal and organisational challenges through digital innovation, extending its relevance beyond private enterprise into public administration. Bližnák et al. (2024) traced the evolution of data governance scholarship and observed a shift from a compliance-oriented conception toward one that treats data as a strategic asset requiring active stewardship.

In the specific context of public sector digital governance, Sorkaa (2026) examined digital governance and administrative efficiency in selected federal ministries in Nigeria using a descriptive survey of employees in Benue State and found that digital governance had a statistically significant positive effect on administrative efficiency, particularly in respect of service delivery speed, records accessibility, and accountability. This finding aligns with the theoretical expectation that structured

ISSN: 2287 – 80X1
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data and digital governance practices translate into measurable gains in administrative performance. Sukare and Abdullahi (2025) reached a comparable conclusion in their review of digital governance and public service delivery in Nigeria, noting that while initiatives such as the Treasury Single Account and the Integrated Payroll and Personnel Information System have improved transparency, infrastructural deficits and weak institutional capacity continue to constrain full realisation of these gains.

International case evidence reinforces these findings. Espinosa and Pino (2024), examining Estonia's e-government trajectory, attributed the country's transformation into one of the most efficient public administrations globally to a foundational emphasis on transparency, trust, and security in the governance of citizen data, underpinned by robust legal and institutional frameworks. Yuliantini and Purnomo (2024), comparing e-government development in Denmark and Estonia, found that structured data governance and interoperable digital registries were central to both countries' gains in citizen engagement and administrative responsiveness. In an African context, Temba (2025) found that electronic governance interventions in Kinondoni and Ubungo municipalities in Tanzania significantly improved public sector efficiency and accountability, although infrastructural and capacity constraints similar to those observed in Nigeria limited the full impact of these interventions.

At the sub-national level in Nigeria, records management studies provide indirect but consistent evidence of the administrative cost of weak data governance. Abdullahi et al. (2016), in an assessment of records management practices in selected local government councils in Ogun State, found that poor records handling led to significant delays in service delivery and difficulty in retrieving information needed for policy and decision-making. Abada et al. (2018) similarly found that Nigerian local government councils lacked a coherent culture of managing information and records, resulting in ad hoc, poorly documented decision-making that undermined institutional memory and accountability. Abdulrahman (2017) linked poor records-keeping practices in Gboko local government area of Benue State directly to weakened governance outcomes, while Igbokwe-Ibeto (2013) observed that the absence of structured records management in the Nigerian public sector created a dilemma between the constitutional right of access to information and the practical inability of institutions to retrieve the records being requested. Iwhiwhu (2020), studying capacity-building needs of records managers in Nigerian federal ministries, found that inadequately trained personnel constituted a significant barrier to effective information governance, a finding with clear implications for local government councils where professional records management capacity is often even more constrained.

Studies specifically addressing administrative efficiency in Nigerian local government further situate the problem. Adebayo (2018) identified institutional capacity, of which data and records management forms a core component, as a decisive factor shaping public service delivery outcomes at the local government level. Oloyede and Adeniran (2023) argued that limited administrative and fiscal autonomy compounds the operational challenges of Nigerian local governments, restricting their capacity to invest in modern data management infrastructure. Oviasuyi and Lawrence (2014) traced these struggles historically, noting that local government autonomy and administrative capacity in Nigeria have remained persistently constrained since the 1976 reforms, a pattern that Rondinelli et al. (2018) situate within broader challenges of decentralisation in developing countries. Omoniyi and Akintoye (2024) linked weak transparency and accountability mechanisms in the Nigerian public sector to declining performance on international governance indices, corroborated by Transparency International's (2023) Corruption Perceptions Index and the World Bank's (2023) Worldwide Governance Indicators, both of which continue to rank Nigeria poorly on government effectiveness and control of corruption, underscoring the accountability dimension of data governance addressed in this study.

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The regulatory and technological environment shaping data governance in Nigeria has also evolved substantially. The Federal Ministry of Communications, Innovation and Digital Economy (2024) enacted the National Digital Economy and E-Governance Act to provide legal backing for electronic records, digital signatures, and electronic service delivery across public institutions, while the National Assembly of the Federal Republic of Nigeria (2023) enacted the Nigeria Data Protection Act to establish binding obligations for the lawful processing and protection of personal data. These instruments create the coercive institutional pressure anticipated by Institutional Theory, obliging local government councils to develop internal data governance capacity in order to remain compliant. The Organisation for Economic Co-operation and Development (2023) similarly notes that countries with clear policy instruments guiding public sector data use record stronger outcomes in transparency and openness, findings that reinforce the environmental dimension of the Technology-Organization-Environment framework applied in this study. At the state level, the Rivers State Government (2026) has articulated ambitions toward digital transformation of governance functions, although the extent of translation into council-level administrative practice remains an empirical question this study seeks to address.

Complementary theoretical insight is offered by security compliance literature. Rogers (1975), in the foundational formulation of Protection Motivation Theory, explains that individuals and, by extension, organisational actors adopt protective behaviours, such as data security compliance, when they perceive both the severity of a threat and their capacity to respond effectively to it. Herath and Rao (2009) extended this reasoning to organisational security policy compliance, demonstrating that a combination of protection motivation and organisational deterrence mechanisms jointly shape employees' adherence to data security protocols, a insight that informs the data security and compliance dimension of strategic data governance examined in this study.

Put together, the reviewed literature demonstrates a consistent pattern across international, national, and sub-national contexts: structured, well-governed data practices are associated with improved administrative performance, while weak or fragmented data practices are associated with delay, error, and accountability deficits. However, the literature also reveals a gap. Existing Nigerian studies have tended either to examine digital or e-governance broadly at the federal or state ministry level (Sorkaa, 2026; Sukare & Abdullahi, 2025), or to examine records management narrowly within local government councils in states other than Rivers State (Abada et al., 2018; Abdullahi et al., 2016). Few studies have empirically modelled strategic data governance as a multidimensional construct, comprising data quality management, data security and compliance, and data stewardship and accountability, in direct quantitative relationship with administrative efficiency specifically within local government councils in Rivers State. This study fills that gap.

Also, while the reviewed studies establish a strong conceptual and empirical foundation linking data-related practices to administrative and organisational performance, there remains a paucity of quantitative, hypothesis-driven research that isolates the specific dimensions of strategic data governance and tests their individual statistical relationships with administrative efficiency within the distinct institutional context of local government councils in Rivers State. This study addresses that identified gap through a correlational empirical design.

Based on the foregoing, the following null hypotheses were formulated to guide the study and were tested at the 0.05 level of significance:

H_{01}: There is no significant relationship between data quality management and administrative efficiency in local government councils in Rivers State.

H_{02}: There is no significant relationship between data security and compliance practices and administrative efficiency in local government councils in Rivers State.

H_{03}: There is no significant relationship between data stewardship and accountability structures and administrative efficiency in local government councils in Rivers State.

3.0 Methodology

This study adopted a descriptive correlational survey design, considered appropriate for describing the status of strategic data governance practices and statistically testing the relationship between the identified dimensions of strategic data governance and administrative efficiency without manipulation of variables. The design incorporates a key-informant data collection strategy in which designated principal officers, evenly distributed across all twenty-three local government councils, report on council-wide, organisational-level practice rather than personal transactional experience. The study population cut across the twenty-three local government councils in Rivers State, Nigeria, a state comprising twenty-three local government areas within the Niger Delta region, encompassing a mix of urban, semi-urban, and riverine administrative headquarters. Because an organisation cannot itself respond to a questionnaire, the population of this study is defined in terms of individual study elements, namely principal management officers holding designated strategic offices with direct responsibility for data-related decisions and administrative operations within their respective councils. Five such offices were identified as constituting the core strategic management tier most directly engaged in council-wide data governance, consistent with the principal-officer structure reported in comparable local government administration studies: the Head of Local Government Administration or Council Manager, the Head of Personnel Management, the Head of Finance and Supply (Treasurer), the Head of Budget and Economic Planning, and the Head of the Information and Communication Technology or Information Unit. With five such offices in each of the twenty-three local government councils in Rivers State, the population of study elements for this research was one hundred and fifteen (115) principal management officers. Given that the population of study elements (115) was small, finite, and precisely delineated by designated office rather than by open-ended employee status, the study adopted total enumeration, that is, a census of the entire population. All 115 principal officers occupying the five designated offices across the twenty-three local government councils were therefore targeted for data collection, ensuring that every council was represented by its full complement of designated strategic officers. Data were collected using a structured questionnaire titled the Strategic Data Governance and Administrative Efficiency Questionnaire (SDGAEQ), divided into two sections. Section A elicited demographic and positional information about each principal officer, while Section B contained twenty-four items measured on a five-point Likert scale, ranging from Strongly Agree to Strongly Disagree, distributed across the three dimensions of strategic data governance and the administrative efficiency construct. Items were deliberately framed to elicit each officer's assessment of council-wide, organisational-level practice rather than their personal transactional experience, consistent with the macro level of analysis adopted for this study. The face and content validity of the instrument were established through review by experts in office technology and management and research methodology at Captain Elechi Amadi Polytechnic, whose observations informed the modification of ambiguous items and confirmed the suitability of the items for a management-cadre respondent group. A pilot test was conducted among twelve principal officers drawn from local government councils in a neighbouring state, and the internal consistency of the instrument was assessed using Cronbach's alpha, yielding coefficients of 0.86 for data quality management, 0.84 for data security and compliance, 0.88 for data stewardship and accountability, and 0.87 for administrative efficiency, all exceeding the conventional threshold of 0.70 and indicating that the instrument was reliable for the study. Data collected were analysed using descriptive statistics, comprising frequencies, simple percentages, means, and standard deviations, to describe the demographic and positional profile of respondents and the status of strategic data governance and administrative efficiency, while the

Pearson Product Moment Correlation Coefficient (PPMC) was used to test the three null hypotheses at the 0.05 level of significance. Analysis was conducted using the Statistical Package for the Social Sciences (SPSS), version 26.

4.0 Data Presentation, Analysis, and Results

Of the 115 copies of the questionnaire administered, 106 were correctly completed and returned, representing a response rate of 92.2 per cent, with every one of the twenty-three local government councils represented by at least four of its five designated principal officers, a threshold considered sufficient to support the macro-level interpretation of the findings reported.

Table 1 presents the demographic and positional profile of the respondents whose questionnaires were validly completed and analysed.

Table 1: Demographic and Positional Profile of Respondents

Variable	Category	Frequency (n = 106)	Percentage (%)
Sex	Male	64	60.4
	Female	42	39.6
Principal Office	Head of Local Govt. Administration/Council Manager	22	20.8
	Head of Personnel Management	21	19.8
	Head of Finance and Supply (Treasurer)	22	20.8
	Head of Budget and Economic Planning	20	18.9
	Head of ICT/Information Unit	21	19.8
Senatorial District	Rivers East	37	34.9
	Rivers West	40	37.7
	Rivers South-East	29	27.4
Years in Current Office	1 - 5 years	35	33.0
	6 - 10 years	44	41.5
	11 years and above	27	25.5

As shown in Table 1, respondents were fairly distributed across sex, with a somewhat higher proportion of male respondents (60.4%). All five designated principal offices were represented in roughly comparable proportions, and responses were obtained from officers across all three senatorial districts of Rivers State, with every one of the twenty-three councils contributing at least four of its five designated officers. The majority of respondents (67.0%) had spent six or more years in their current office, suggesting that the study elements possessed sufficient strategic experience to provide informed assessments of council-wide data governance practice.

Descriptive Analysis of Study Variables

Table 2 presents the descriptive statistics for the study's core constructs, with mean scores interpreted against a criterion mean of 3.00 on the five-point Likert scale, above which a construct is considered to be rated highly by the principal officers surveyed.

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Volume 14, Number 2, 2026
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Table 2: Descriptive Statistics for the Study's Core Constructs

Construct (N = 106)	Mean ($\bar{x}$)	Standard Deviation (SD)	Remark
Data Quality Management	3.71	0.57	High
Data Security and Compliance	3.64	0.61	High
Data Stewardship and Accountability	3.79	0.54	High
Administrative Efficiency	3.68	0.59	High

Table 2 shows that all four constructs recorded mean scores above the criterion mean of 3.00, with data stewardship and accountability recording the highest mean ($\bar{x}$ = 3.79, SD = 0.54), followed by data quality management ($\bar{x}$ = 3.71, SD = 0.57), administrative efficiency ($\bar{x}$ = 3.68, SD = 0.59), and data security and compliance ($\bar{x}$ = 3.64, SD = 0.61). The comparatively moderate standard deviations across the twenty-three councils indicate a reasonable convergence in organisational-level practice, notwithstanding the differences in size, location, and resource base among the councils studied.

Test of Hypotheses

Hypothesis One

H01: There is no significant relationship between data quality management and administrative efficiency in local government councils in Rivers State.

Table 3: Relationship between Data Quality Management and Administrative Efficiency

Variables Correlated (N = 106)	N	r-value	p-value	Decision at α = 0.05
Data Quality Management and Administrative Efficiency	106	0.784	0.000	Rejected

As presented in Table 3, the computed PPMC value of r = 0.784 at p = 0.000 ($p < 0.05$) indicates a strong, positive, and statistically significant relationship between data quality management and administrative efficiency in local government councils in Rivers State. Consequently, the null hypothesis (H01) is rejected, and the alternate hypothesis, that a significant relationship exists between data quality management and administrative efficiency, is accepted.

Hypothesis Two

H02: There is no significant relationship between data security and compliance practices and administrative efficiency in local government councils in Rivers State.

Table 4: Relationship between Data Security and Compliance Practices and Administrative Efficiency

Variables Correlated (N = 106)	N	r-value	p-value	Decision at α = 0.05
Data Security and Compliance and Administrative Efficiency	106	0.816	0.000	Rejected

Table 4 shows a computed PPMC value of r = 0.816 at p = 0.000 ($p < 0.05$), representing a very strong, positive, and statistically significant relationship between data security and compliance practices and administrative efficiency. The null hypothesis (H02) is therefore rejected, and the alternate hypothesis is accepted, confirming that data security and compliance practices significantly relate to administrative efficiency in local government councils in Rivers State.

Hypothesis Three

H03: There is no significant relationship between data stewardship and accountability structures and administrative efficiency in local government councils in Rivers State.

Table 5: Relationship between Data Stewardship and Accountability Structures and Administrative Efficiency

Variables Correlated (N = 106)	N	r-value	p-value	Decision at α = 0.05
Data Stewardship and Accountability and Administrative Efficiency	106	0.749	0.000	Rejected

As shown in Table 5, the computed PPMC value of r = 0.749 at p = 0.000 ($p < 0.05$) indicates a strong, positive, and statistically significant relationship between data stewardship and accountability structures and administrative efficiency. The null hypothesis (H03) is accordingly rejected, and the alternate hypothesis is accepted.

Summary of Hypotheses Testing

Table 6 provides a summary matrix of the correlation results for the three hypotheses tested in the study.

Table 6: Correlation Matrix

Dimension of Strategic Data Governance	r-value	p-value	Strength of Relationship	Decision
Data Quality Management	0.784	0.000	Strong positive	H01 rejected
Data Security and Compliance	0.816	0.000	Very strong positive	H02 rejected
Data Stewardship and Accountability	0.749	0.000	Strong positive	H03 rejected

The summary matrix in Table 6 confirms that all three dimensions of strategic data governance examined in this study, namely data quality management, data security and compliance, and data stewardship and accountability, exhibit strong to very strong positive and statistically significant relationships with administrative efficiency in local government councils in Rivers State, with data security and compliance recording the strongest relationship (r = 0.816).

Discussion of Findings

The finding that data quality management exhibits a strong, positive, and significant relationship with administrative efficiency (r = 0.784, $p < 0.05$) affirms the position of Acuña et al. (2026) and Davidson et al. (2023) that the reliability and consistency of organisational data are foundational to effective decision-making and value generation. This finding is consistent with Abdullahi et al. (2016), who found that poor records handling in Ogun State local government councils translated directly into delays and inaccuracies in service delivery, and with Sorkaa (2026), who found that improved records accessibility was among the specific pathways through which digital governance enhanced administrative efficiency in Nigerian federal ministries. The implication is that where local government councils in Rivers State invest in accurate, complete, and timely data practices, corresponding gains in administrative performance can be expected.

The finding that data security and compliance recorded the strongest relationship with administrative efficiency (r = 0.816, $p < 0.05$) lends empirical support to the theoretical propositions of Rogers (1975) and Herath and Rao (2009), who argue that structured protective and compliance behaviours around sensitive information reduce organisational vulnerability and, by extension, the administrative disruption associated with data breaches, loss, or unauthorised alteration of records. This finding also resonates with the coercive institutional pressure anticipated by Institutional Theory, given that both the National Digital Economy and E-Governance Act, 2024, and the Nigeria Data Protection Act, 2023 (Federal Ministry of Communications, Innovation and Digital Economy, 2024; National Assembly of the Federal Republic of Nigeria, 2023), impose compliance obligations that, when internalised, appear to correspond with stronger administrative outcomes at the council level.

The finding that data stewardship and accountability structures relate strongly and significantly to administrative efficiency ($r = 0.749$, $p < 0.05$) corroborates Igbokwe-Ibeto (2013) and Abdulrahman (2017), both of whom linked weak custodial responsibility for records to poor governance outcomes in Nigerian public institutions, and aligns with Omoniyi and Akintoye's (2024) observation that weak accountability mechanisms are strongly implicated in Nigeria's persistently poor performance on international transparency indices (Transparency International, 2023; World Bank, 2023). The finding further supports Iwhiwhu's (2020) argument that clearly assigned records stewardship roles, backed by adequate staff capacity, are essential to sustainable information management in Nigerian public institutions.

Collectively, these findings validate the Technology-Organization-Environment framework applied in this study, demonstrating that administrative efficiency in local government councils in Rivers State is shaped jointly by the technological readiness embedded in data quality practices, the organisational capacity reflected in stewardship and accountability arrangements, and the environmental regulatory pressure captured in data security and compliance practices. The findings also extend the international evidence from Estonia (Espinosa & Pino, 2024) and Tanzania (Temba, 2025) to the Nigerian local government context, reinforcing the proposition that structured data governance, irrespective of jurisdiction, is a consistent correlate of administrative performance.

It is also worth situating these findings alongside those of Nwinyokpugi and Ikoromasoma (2021), whose micro-level study of individual council workers in Rivers State found that workplace management strategies were strongly associated with individual employee commitment. The present findings suggest a complementary but distinct pattern at the organisational level: where the earlier study demonstrated that how individual employees experience their immediate work environment shapes their personal commitment, this study demonstrates that how principal officers govern data as a strategic asset shapes the administrative performance of the council as a whole. Read together, the two studies indicate that efficient and committed local government administration in Rivers State depends on coherent practice at both the micro, individual level and the macro, managerial level, and that neither level of intervention alone is likely to be sufficient.

5.0 Conclusion

This study set out to examine the relationship between strategic data governance and administrative efficiency in local government councils in Rivers State, disaggregating strategic data governance into data quality management, data security and compliance, and data stewardship and accountability. The empirical findings demonstrate that all three dimensions bear strong to very strong positive and statistically significant relationships with administrative efficiency, leading to the rejection of all three null hypotheses formulated for the study. The study concludes that administrative efficiency in Rivers State's local government councils is substantially a function of how deliberately and coherently data are governed, and that the persistence of administrative delay, weak accountability, and service delivery failures in these councils is intricately linked to the continuing weakness of formal data governance structures. Strategic data governance is, therefore, not a peripheral technical concern but a central management imperative for local government administration.

6.0 Recommendations

Based on the findings of this study, the following recommendations are made:

1. Local government councils in Rivers State should institutionalise formal data governance policies that clearly define data quality standards, custodial responsibilities, and audit procedures across all administrative departments.
2. The Rivers State Local Government Service Commission should invest in continuous strategic capacity-building programmes targeted specifically at principal management officers, namely Heads of Local Government Administration, Personnel Management, Finance, Budget and Planning, and ICT, to strengthen their competence in governing data as a strategic organisational asset.
3. Local government councils should deploy secure, interoperable digital data management systems that comply with the Nigeria Data Protection Act, 2023, and the National Digital Economy and E-Governance Act, 2024, to safeguard citizen data and reduce administrative vulnerability.

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