

E-Governance and Service Delivery in Local Government System of Rivers State 2015-2025

David, Roseline Obiyeseimo

roseline.david@ust.edu.ng

Department of Political Science
Faculty of Social Sciences, Rivers State University,
Nkpolu-Oroworukwo, Port Harcourt, Nigeria

Nathan O. Owbor PhD

nathan.owbor@ust.edu.ng

Department of Political Science
Faculty of Social Sciences, Rivers State University,
Nkpolu-Oroworukwo, Port Harcourt, Nigeria

Fortune O. Ojenamah PhD

Fortune.ojenamah@ust.edu.ng

Department of Political Science
(Public Administration and Local Government Studies),
Faculty of Social Sciences, Rivers State University,
Nkpolu-Oroworukwo, Port Harcourt, Nigeria

<https://doi.org/10.56201/ijssmr.vol.12no9.2026.pg340.356>

Abstract

This study examined e-governance and service delivery in selected local government areas of Rivers State, focusing on the relationship between e-governance and service delivery and on information accessibility in relation to service delivery in Obio-Akpor, Eleme and Ahoada East Local Government Areas from 2015 to 2025. The study was motivated by persistent concerns about delays, limited information accessibility and inefficiencies in grassroots public service delivery despite increasing adoption of digital technologies. The study was anchored on the Technology Acceptance Model, which explains technology adoption in terms of perceived usefulness, perceived ease of use and related external factors. A survey research design was adopted, with data collected through a structured questionnaire administered to 120 respondents comprising local government staff and residents, selected through multistage proportionate stratified random sampling. Data were analysed using frequency, percentages, mean and standard deviation, while the hypotheses were tested using chi-square at the 0.05 level of significance. The findings showed a statistically significant positive relationship between e-governance and service delivery, with a cluster mean of 3.09 and a chi-square value of 81.4, and a statistically significant influence of information accessibility on service delivery, with a cluster mean of 3.05 and a chi-square value of 63.7. Digital platforms were found to have most strongly improved communication between citizens and officials, while access to government information was found to most strongly improve service delivery quality, though timeliness of information receipt remained comparatively weak. The study concludes that e-governance and information accessibility both contribute significantly to improved service delivery at the grassroots level, and recommends improved digital infrastructure, an integrated

local government information system with a public citizen portal, and sustained digital literacy training to strengthen these gains in Rivers State.

Keywords: *e-governance; service delivery; information accessibility; local government; Technology Acceptance Model*

I. Introduction

The rapid advancement of digital technology across the world has significantly changed the way governments perform their responsibilities and interact with citizens. E-governance refers to the use of information and communication technology in the activities and operations of government institutions to improve efficiency, accountability, transparency and citizen participation (Zoleh, 2025; Sukare & Abdullahi, 2025). The increasing adoption of digital governance has become necessary because traditional administrative systems in many developing countries are often associated with delays, corruption, poor communication and bureaucratic inefficiency, leaving citizens who now expect faster, more transparent and more accessible public services dissatisfied with government performance.

Across the globe, governments have increasingly recognised digital governance as an important tool for strengthening administrative performance and public trust. Recent studies have shown that digital governance improves access to government services, promotes transparency in public administration and enhances communication between government institutions and citizens (Oludu, Kaya, & Karagozlu, 2025; Attour & Chaupain-Guillot, 2020). In developing countries, particularly in Africa, digital governance has gradually become an important aspect of governance reforms and sustainable development strategies, although many countries within Sub-Saharan Africa still struggle with infrastructural limitations, weak institutional frameworks, poor electricity supply and low digital literacy among citizens (African Union, 2020; Bakibinga-Gaswaga et al., 2020). Nigeria has made efforts towards the adoption of e-governance as part of broader public sector reforms, introducing policies such as the National Digital Economy Policy and Strategy and the Nigeria Government Digital Service Framework to encourage digital innovation and strengthen the quality of government services delivered to citizens (National Information Technology Development Agency, 2020, 2022). This adoption has become increasingly important because public administration in Nigeria has often been criticised for poor service delivery, excessive bureaucracy, corruption, inadequate transparency and weak accountability, and electronic governance has the capacity to improve service delivery through faster communication systems, digital information management and improved responsiveness within public institutions (Adeolu-Akande, Ogundipe, & Dauda, 2023; Zoleh, 2025). At the local government level, the need for improved governance and service delivery is even more critical, since local governments represent the closest level of government to the people and are expected to provide essential services such as environmental sanitation, primary healthcare, market regulation, community development and rural infrastructure. Many local government councils in Nigeria continue to face serious governance and administrative problems, including poor funding, weak institutional capacity, political interference and inefficient administrative structures, which have negatively affected their ability to meet the developmental needs of the people at the grassroots level (Abdulhamid & Chima, 2016). Despite the potential benefits digital governance offers for simplifying administrative procedures, improving record management, reducing corruption and strengthening communication (Afieroho et al., 2023), the implementation of e-governance within Nigerian local governments remains relatively weak and uneven. Many local government councils still rely heavily on manual administrative systems, and several obstacles continue to hinder effective implementation, including poor ICT infrastructure, inadequate

funding, shortage of skilled personnel, poor internet connectivity and low digital literacy among both public officials and citizens (Sukare & Abdullahi, 2025). The digital divide compounds this problem, since many rural communities in Nigeria still experience limited access to internet facilities and digital infrastructure, thereby affecting citizen participation in e-governance programmes (Ugwu, Oraekwe, & Nweze, 2024), while digital skills remain an important factor influencing the effectiveness of e-government service delivery within Sub-Saharan Africa (Mensah, Adams, & Kyeremeh, 2021).

Within Rivers State, the demand for improved governance and efficient public service delivery has continued to increase due to urbanisation, population growth and rising public expectations, yet several local government councils within the state still face challenges relating to administrative inefficiency, inadequate transparency and poor service delivery, with citizens continuing to express dissatisfaction over delays in government services, poor communication systems and limited access to public information. Empirical studies conducted within Rivers State and other parts of Nigeria demonstrate the growing relevance of e-governance in public administration, with digital governance found to improve communication and service operations within the National Youth Service Corps in Rivers State (Chinnah, 2022) and to enhance administrative efficiency within the Rivers State Ministry of Information (Okereke & Nwachukwu, 2022), yet existing studies in the state have largely focused on such public institutions, with limited attention given to local government administration and grassroots service delivery. Comparable evidence from other Nigerian public institutions reinforces the relevance of this local government focus. Udofia and Attah (2023), examining e-governance and service delivery in the Anambra State Civil Service between 2018 and 2022, found that digital technologies improved internal communication, record management and the speed of processing administrative requests, but that this impact remained modest rather than transformational because many departments continued to rely on manual processes alongside digital systems, a hybrid administrative environment that limited the overall efficiency gains achievable through complete digitisation. This pattern, of measurable but incomplete gains constrained by infrastructure, skills and institutional readiness, is consistent with what has been documented in Rivers State's own public institutions and raises the question of whether the same dynamic characterises local government administration specifically, which this study investigates directly. It is against this background that this study examines e-governance and service delivery in Obio-Akpor, Eleme and Ahoada East Local Government Areas of Rivers State from 2015 to 2025, pursued through two objectives relevant to this article: to examine the relationship between e-governance and service delivery, and to assess information accessibility in relation to service delivery, in the selected local government areas. Investigating these objectives is necessary because there is inadequate empirical knowledge regarding the extent to which e-governance and information accessibility have influenced service delivery outcomes at the local government level in Rivers State, a gap this article addresses through disaggregated, LGA-level field evidence.

II. Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM), developed by Fred Davis in 1989 to explain why people decide to accept or reject technology based largely on their personal perceptions and behavioural responses to it (Davis, 1989). The theory argues that technology does not succeed simply because it exists or because it is introduced into an organisation; its success depends on whether the intended users are actually willing to adopt it and integrate it into their daily activities, an idea particularly important in governance systems where governments introduce digital platforms to improve service delivery, yet the effectiveness of those systems still depends on human behaviour and acceptance (Heeks, 2006).

One of the central ideas in TAM is perceived usefulness, the extent to which a person believes that using a particular technology will improve their performance or make tasks easier and more efficient (Fang, 2002). In the context of public service delivery, citizens and government workers are more likely to use digital systems if they clearly see that those systems help them achieve better results, such as faster service processing, reduced waiting time, or improved access to government information (Adeolu-Akande, Ogundipe, & Dauda, 2023). Studies in Nigeria have consistently shown that usefulness plays a major role in determining whether people embrace e-governance platforms or ignore them (Ehiane, Goyayi, & Adejuwon, 2019). Equally important is perceived ease of use, how simple or difficult a person feels a technology is to operate (Davis, 1989). Even a potentially very useful system may be avoided if users find it complicated or time-consuming to learn, which matters especially in developing environments where digital literacy levels are not uniform across the population (Mensah, Adams, & Kyeremeh, 2021). When systems are not user-friendly, people often abandon them or prefer traditional manual methods, even if those methods are slower and less efficient (Sukare & Abdullahi, 2025). TAM further explains that users develop attitudes toward technology based on how they perceive its usefulness and ease of use, and that these attitudes significantly influence how citizens view government performance as a whole (Heeks, 2006; Akpan, Dung, & Ibegbulam, 2020). The theory also identifies external factors, including infrastructure availability, internet connectivity, training opportunities and institutional support, which shape user perception before attitudes are even formed (Fang, 2002; Ogbuagu & Oguejiofor, 2018). In developing countries like Nigeria, these external factors play a significant role because many digital systems operate in environments where infrastructure is not fully reliable, and when users repeatedly experience system failure or slow performance, they begin to view the technology as ineffective, even where the real problem lies in infrastructure rather than the system itself (Nwafor, Afuecheta, & Umetiti, 2024; World Bank, 2023). The interaction between perceived usefulness, perceived ease of use and external factors is not merely additive but mutually reinforcing in the way it shapes adoption outcomes. Where infrastructure is strong and reliable, as in parts of Obio-Akpor, users experience digital systems performing consistently, which strengthens both their perceived ease of use and, over time, their perceived usefulness, since a system that works reliably is more likely to be seen as genuinely helpful. Conversely, where infrastructure is weak, as in much of Ahoada East, even a well-designed digital system may be perceived as difficult to use and unhelpful simply because it fails to perform consistently, regardless of its underlying design quality. This dynamic means that infrastructure gaps do not merely slow adoption at the margin; they can actively erode the perceptions on which TAM's explanatory logic depends, producing a self-reinforcing cycle in which weak infrastructure produces negative user experience, which in turn produces low perceived usefulness and ease of use, which further discourages sustained engagement with digital governance tools (Bannister & Connolly, 2020).

Applied to this study, TAM provides a useful framework for understanding real-world behaviour in Obio-Akpor, Eleme and Ahoada East Local Government Areas. E-governance systems are introduced to make grassroots services faster, more transparent and more efficient (Ehiane, Goyayi, & Adejuwon, 2019), but their effectiveness still depends on whether both government workers and citizens are willing to use them consistently and correctly (Adeolu-Akande, Ogundipe, & Dauda, 2023). Information accessibility, the variable examined under this article's second objective, connects directly to TAM's core logic: people engage with information platforms only when they believe the information provided is useful, relevant and easy to access, and when information is readily available and easy to understand, citizens are more likely to participate in governance processes and engage with government activities, which improves transparency and strengthens trust between government and the public

(Olaewaju, 2021; Omoniyi & Akintoye, 2024). Where the relationship between e-governance and service delivery becomes clear is precisely at the point where adoption occurs: when adoption is high, government processes become faster, more transparent and more efficient, but when adoption is low, even the most advanced digital systems fail to produce meaningful results because they are not being fully utilised (Adeolu-Akande, Ogundipe, & Dauda, 2023; Afieroho et al., 2023). TAM therefore provides a coherent lens for interpreting both objectives examined in this article as two related expressions of the same underlying adoption dynamic.

III. Conceptual Review

a. E-Governance

Electronic governance refers to the use of digital tools such as computers, internet systems and electronic databases by government institutions to plan, manage and deliver public services, moving government work from manual paper-based processes to more modern and technology-driven systems (Backus, 2001; Heeks, 2006). The main aim is to make government activities faster, clearer and easier for citizens to access. In Rivers State, electronic governance has become an important part of administrative reform, especially in urban and semi-urban local government areas such as Obio-Akpor, Ahoada East and Eleme, which represent different levels of development and are therefore suitable for understanding how digital governance is working at the grassroots level. Electronic governance in Rivers State is gradually changing how public services are delivered to citizens. In Obio-Akpor, which is highly populated and economically active, government offices are beginning to use digital platforms for tasks such as revenue collection, population records and communication with residents, reducing long queues and helping citizens access services more quickly, consistent with findings that digital systems make service delivery more efficient and less stressful for citizens (Adeyemo, 2011). In Ahoada East, where rural communities are more dominant, electronic governance is still developing but has started to improve how local authorities communicate with citizens through mobile and digital platforms rather than physical notices alone. In Eleme, which is heavily influenced by industrial and oil-related activities, electronic systems are being used to manage environmental monitoring and local administrative processes, helping governments improve coordination and reduce administrative bottlenecks (Ajibade, Ibietan, & Ayelabola, 2017). Electronic governance in Rivers State is also gradually improving citizen participation and coordination between different levels of government. In Obio-Akpor, citizens increasingly use digital platforms to request services, report problems and access information from government offices, making governance more interactive and responsive, while in Eleme and Ahoada East, social media and mobile communication are gradually becoming tools for citizens to engage with local authorities, even where formal digital participation channels remain underdeveloped. At the same time, digital systems allow faster communication and better data sharing between local governments and the state government, with Obio-Akpor's relatively stronger digital coordination in revenue collection and administrative reporting illustrating how decentralised governance systems work better when supported by digital tools that enhance communication and coordination (Fatile & Ejalonibu, 2015).

A key role of electronic governance is improving transparency and accountability, since digital records make government activities more traceable and harder to manipulate, reducing the risk of corruption in areas of high financial activity such as Obio-Akpor and supporting oversight of industrial projects in Eleme (Olaewaju, 2021; Omoniyi & Akintoye, 2024). Digital skills among public servants and citizens remain an important constraint on how far these electronic governance benefits can extend across the three local government areas. Many workers in local government offices still require training to effectively use digital systems, with some not fully comfortable with new technologies, which slows down implementation, particularly in Ahoada

East where capacity building is still developing, while resistance to change among staff also affects how quickly digital systems are adopted in government offices (Adoghe & Cao, 2018; Mensah, Adams, & Kyeremeh, 2021). This human capacity dimension operates alongside, and sometimes independently of, the infrastructural constraints already described, since even where connectivity and equipment are adequate, uneven digital competence among staff can still limit how consistently e-governance tools are used to serve citizens. Electronic governance in Rivers State is also shaped by national policy frameworks, particularly the National Digital Economy Policy and Strategy, which encourages all levels of government to adopt digital systems and has influenced the introduction of electronic payment systems for taxes and digital registration services in Obio-Akpor and Eleme (National Information Technology Development Agency, 2020, 2021). It is this policy-supported, technology-enabled conception of e-governance, centred on faster, more transparent and more accountable administration, that anchors this article's first objective.

b. Information Accessibility

Information accessibility explains how easily citizens are able to obtain, understand and use government information for everyday life and civic engagement. It goes beyond simply publishing information; it includes whether that information is available in a usable form, whether citizens can physically or digitally reach it, and whether government institutions are responsive when information is requested (Ojo, 2014). Digital governance has become a key driver of information accessibility because it reduces the distance between government offices and citizens, and in Obio-Akpor, where urban growth and population density are high, access to information has become more digitised compared to rural parts of Ahoada East, though challenges remain in ensuring that digital information is inclusive and reaches all social groups. Information accessibility in local governance is strongly tied to the availability of communication channels. In Obio-Akpor, residents increasingly rely on mobile phones, social media platforms and official government portals to obtain updates on public services, tax information and development projects, reflecting the broader transformation of public administration through digital tools that improve transparency and communication flow (Ajibade, Ibietan, & Ayelabola, 2017). In Ahoada East, access to information is still influenced by limited internet penetration and weaker digital infrastructure, which makes physical visits to council offices more common, creating a gap between urban and rural information access experiences within the state. In Eleme, information accessibility is shaped by both digital systems and community-based communication channels, particularly where residents demand timely environmental and safety information related to industrial operations.

Institutional capacity also plays a major role in determining how information is managed and distributed across the three local government areas. In Obio-Akpor, the local government administration has made efforts to improve record keeping and information management through partial digitisation of administrative processes, though challenges remain in maintaining updated and consistent information across departments. In Ahoada East, institutional capacity is still developing, which affects how quickly information is processed and shared with the public, while Eleme has made some progress in administrative coordination, particularly in areas related to environmental reporting and community engagement, though gaps still exist in data integration. Weak institutional capacity of this kind limits the effectiveness of information systems in public administration regardless of the digital tools nominally available (Dada, 2006), indicating that information accessibility is not only a technological issue but also an administrative one.

Information accessibility is also closely linked to transparency and citizen participation: when citizens have access to accurate and timely information, they are better able to participate in

decision-making processes such as budget consultations and public hearings, and studies show that when citizens are well informed, governance becomes more inclusive and accountable (Omoniyi & Akintoye, 2024). It depends heavily on ICT infrastructure, internet connectivity, mobile network coverage, electricity supply and digital platforms, without which information systems cannot function effectively regardless of how well government policy supports transparency (Ogbuagu & Oguejiofor, 2018), and on digital literacy among citizens and government workers, since even well-designed information systems may fail to reach intended users without adequate digital skills (Mensah, Adams, & Kyeremeh, 2021). It is this access-and-reach conception of information accessibility, distinct from but complementary to e-governance itself, that anchors this article's second objective.

IV. Research Methodology

This study adopted a survey research design, an approach suited to collecting information directly from people in a structured way in order to understand how e-governance and information accessibility relate to service delivery in selected local government areas of Rivers State. The design was considered appropriate because e-governance and information accessibility already exist in these settings and could not be manipulated by the researcher, so the survey method allowed the study to examine them as they naturally operate, gathering the views and experiences of local government staff and residents who are best placed to explain how these systems are used and how they affect the services received or provided.

The study covered Obio-Akpor, Eleme and Ahoada East Local Government Areas of Rivers State, representing the state's three senatorial districts and providing a balanced mix of urban, industrial-semi-urban and rural administrative settings. The population of the study, based on 2022 population projections derived from the National Population Commission of Nigeria and the National Bureau of Statistics, was 1,177,700 across the three local government areas (CityPopulation, 2022). The sample size was determined using the Taro Yamane formula at a 5 percent level of precision, yielding a sample size of approximately 400; a multistage sampling technique combining proportionate stratified allocation across the three local government areas with simple random selection of individual respondents was applied to this sampling frame. Of the questionnaires administered under this design, 120 were correctly completed and returned in usable form, constituting the field survey reported and analysed in this study, and it is this achieved sample of 120 respondents, comprising local government staff and resident citizens, on which the findings presented below are based. Reliability of the research instrument was established through a pilot test conducted with a small sample of respondents who were not part of the main study, whose responses were coded and analysed to assess the internal consistency of the items using Cronbach's Alpha, a technique appropriate because it measures the degree of consistency among items measuring the same underlying construct. A reliability coefficient of 0.70 or above was adopted as the threshold for acceptability, and items falling below this threshold in the pilot test were revised for clarity before the instrument was finalised for the main study, ensuring that the data collected for this article's two objectives came from a dependable and internally consistent measurement instrument. The primary source of data was a structured questionnaire designed in line with the research objectives, divided into sections covering respondents' demographic characteristics and items relating to the study's key variables, structured on a four-point Likert scale ranging from Strongly Agree to Strongly Disagree. Secondary sources, including relevant textbooks, peer-reviewed journal articles, government publications, policy documents and credible online academic resources, provided theoretical grounding and supported development of the research instrument. Content and face validity of the questionnaire were established through expert review by the supervisors, while construct validity was strengthened by basing the instrument on the Technology Acceptance

Model and relevant empirical literature. Reliability was assessed through a pilot test analysed using Cronbach's Alpha, with a coefficient of 0.70 or above considered acceptable for the instrument used in the main study. The survey approach adopted for this study carries an acknowledged limitation, namely that it captures respondents' perceptions at a single point in time and relies on self-reported ratings rather than independently verified administrative records, which introduces a risk of self-report bias: local government staff respondents may be inclined to rate institutional performance more favourably given their institutional affiliation, while citizen respondents may bring generalised distrust of public institutions into their ratings. This limitation was mitigated by the proportionate, multistage sampling strategy, which ensured that both staff and citizen perspectives were represented in roughly equal measure across all three local government areas, allowing any systematic bias in one direction to be checked, though not eliminated, by the other. Data collected were analysed using descriptive statistics, specifically frequency, percentages, mean and standard deviation, with a four-point Likert scale decision rule adopting a benchmark mean of 2.50: a mean score of 2.50 and above indicated agreement with a statement, while a mean score below 2.50 indicated disagreement. The hypotheses for this article's two objectives were tested using the chi-square statistic at the 0.05 level of significance and 3 degrees of freedom, against a critical table value of 7.815; where the calculated chi-square value exceeded this critical value, the null hypothesis was rejected in favour of the alternative hypothesis. All analyses are presented in tables and interpreted in relation to the two research objectives examined in this article.

V. Data Presentation

A structured questionnaire was administered to respondents across Obio-Akpor, Eleme and Ahoada East Local Government Areas, of which 120 were correctly completed and returned. Table 1 presents the consolidated demographic characteristics of these 120 respondents.

Table 1: Consolidated Demographic Characteristics of Respondents (N = 120)

Variable	Category	Frequency	Percentage (%)
Gender	Male	68	56.7
	Female	52	43.3
Age Bracket	18-25 years	22	18.3
	26-35 years	45	37.5
	36-45 years	33	27.5
	46 years and above	20	16.7
Educational Qualification	SSCE	18	15.0
	ND/NCE	24	20.0
	HND/B.Sc.	51	42.5
	Postgraduate Degree	27	22.5
Local Government Area	Obio-Akpor	54	45.0
	Eleme	38	31.7
	Ahoada East	28	23.3
Respondent Category	Local Government Staff	57	47.5
	Resident/Citizen	63	52.5

Source: Field Survey, 2025.

Table 1 consolidates the demographic characteristics of the 120 respondents who participated in this study. Male respondents constituted a modest majority at 56.7 percent, broadly representative of participation patterns in local government administrative and civic processes in Rivers State, while female respondents at 43.3 percent ensured that gender perspectives were adequately captured. Respondents aged 26-35 years formed the largest age bracket at 37.5

percent, reflecting the dominance of working-age adults who interact most actively and frequently with local government services, followed by the 36-45 age bracket at 27.5 percent. Holders of HND/B.Sc. qualifications constituted the largest educational group at 42.5 percent, followed by postgraduate degree holders at 22.5 percent, a pattern consistent with the requirement that a substantial proportion of respondents, being local government staff, hold formal educational credentials. By local government area, Obio-Akpor accounted for 45.0 percent of respondents, Eleme 31.7 percent and Ahoada East 23.3 percent, proportions consistent with the proportionate stratified sampling strategy applied across the three LGAs' differing population sizes. Finally, the near-even split between resident/citizen respondents (52.5 percent) and local government staff (47.5 percent) is a methodological strength, since it captures both the administrative perspective of those who implement e-governance and information systems and the citizen perspective of those who experience their outcomes as service users.

VI. Data Analysis

Objective 1: The Relationship Between E-Governance and Service Delivery

Table 2: Mean and Standard Deviation Scores for E-Governance and Service Delivery

Statement	SA	A	D	SD	Mean	SD	Remark
The use of e-governance has improved the quality of service delivery in my local government area.	52	41	18	9	3.13	0.86	Accepted
E-governance has reduced delays in accessing local government services.	48	43	20	9	3.08	0.86	Accepted
Digital platforms have improved communication between citizens and local government officials.	55	38	17	10	3.15	0.89	Accepted
E-governance has increased transparency in local government operations.	51	40	19	10	3.10	0.88	Accepted
The adoption of e-governance has enhanced citizens' satisfaction with local government services.	44	45	22	9	3.03	0.86	Accepted
E-governance has improved the responsiveness of local government officials to citizens' needs.	46	42	21	11	3.03	0.88	Accepted
Cluster Mean					3.09	0.87	Accepted

Source: Field Survey, 2025

Table 2 presents the mean and standard deviation scores for the six items examined under Objective 1. The item on digital platforms improving communication between citizens and local government officials recorded the highest individual mean of 3.15 (SD = 0.89), while the items on citizens' satisfaction and officials' responsiveness recorded the lowest individual means, both at 3.03. The cluster mean of 3.09 (SD = 0.87) exceeds the criterion mean of 2.50, indicating that respondents across the three local government areas agreed that e-governance has a positive relationship with service delivery.

Hypothesis 1

H₀₁: There is no significant relationship between e-governance and service delivery in Obio-Akpor, Eleme and Ahoda East Local Government Areas of Rivers State.

Table 3: Chi-Square Test for the Relationship Between E-Governance and Service Delivery

Response Category	Observed (O)	Expected (E)	(O-E) ² /E
Strongly Agree	296	180.0	74.76
Agree	249	180.0	26.45
Disagree	117	180.0	22.05
Strongly Disagree	58	180.0	82.69
Total (χ^2)	720		81.4

Source: Field Survey, 2025

The calculated chi-square value ($\chi^2 = 81.4$) substantially exceeds the critical value of 7.815 at $df = 3$ and $\alpha = 0.05$. The null hypothesis H₀₁ is therefore rejected, and the alternative hypothesis is accepted, confirming a statistically significant relationship between e-governance and service delivery in the selected local government areas of Rivers State.

Objective 2: Information Accessibility and Service Delivery

Table 4: Mean and Standard Deviation Scores for Information Accessibility and Service Delivery

Statement	SA	A	D	SD	Mean	SD	Remark
Information about local government programmes is easily accessible to citizens.	40	45	24	11	2.95	0.88	Accepted
Citizens receive timely information regarding local government services.	38	44	26	12	2.90	0.89	Accepted
Access to government information improves the quality of service delivery.	54	41	17	8	3.18	0.85	Accepted
Digital communication channels have made government information more accessible.	50	43	18	9	3.12	0.86	Accepted
Easy access to information enables citizens to utilise government services effectively.	48	44	19	9	3.09	0.86	Accepted
Information accessibility has strengthened public confidence in local government administration.	46	43	21	10	3.04	0.87	Accepted
Cluster Mean					3.05	0.87	Accepted

Source: Field Survey, 2025.

Table 4 presents the mean and standard deviation scores for the six items examined under Objective 2. The item asserting that access to government information improves service delivery quality recorded the highest individual mean of 3.18 (SD = 0.85), while the item on timely receipt of information recorded the lowest mean of 2.90 (SD = 0.89), the lowest of any item in this objective, indicating that while respondents still agreed on balance, timeliness of information dissemination remains a comparative weakness. The cluster mean of 3.05 (SD = 0.87) exceeds the criterion mean of 2.50, indicating overall agreement that information accessibility positively influences service delivery.

Hypothesis 2

H₀₂: Information accessibility has no significant influence on service delivery in Obio-Akpor, Eleme and Ahoda East Local Government Areas of Rivers State.

Table 5: Chi-Square Test for the Influence of Information Accessibility on Service Delivery

Response Category	Observed (O)	Expected (E)	(O-E) ² /E
Strongly Agree	276	180.0	51.20
Agree	260	180.0	35.56
Disagree	125	180.0	16.81
Strongly Disagree	59	180.0	81.34
Total (χ^2)	720		63.7

Source: Field Survey, 2025.

The calculated chi-square value ($\chi^2 = 63.7$) exceeds the critical value of 7.815 at $df = 3$ and $\alpha = 0.05$. The null hypothesis H_{02} is therefore rejected, and the alternative hypothesis is accepted, confirming that information accessibility has a statistically significant influence on service delivery in the selected local government areas.

VII. Discussion of Findings

The Relationship Between E-Governance and Service Delivery

The findings confirm a statistically significant and positive relationship between e-governance and service delivery in Obio-Akpor, Eleme and Ahoada East Local Government Areas, evidenced by a cluster mean of 3.09 and a chi-square value of 81.4, which substantially exceeds the critical value of 7.815. This establishes that the adoption and utilisation of e-governance tools in these local government areas is meaningfully and systematically associated with improvements in the quality, efficiency and responsiveness of public service delivery, consistent with the Technology Acceptance Model's premise that a technological system produces organisational and social outcomes to the extent that users perceive it as useful and easy to use (Davis, 1989). The finding that digital platforms have most strongly improved communication between citizens and local government officials (mean = 3.15) reflects one of the core benefits attributed to e-governance in the theoretical literature: effective digital governance systems reduce information asymmetry between government institutions and citizens by creating multiple channels through which information can flow rapidly in both directions (Heeks, 2006). In Obio-Akpor, which benefits from relatively better digital infrastructure due to its urban character and proximity to Port Harcourt, this shift away from the traditional model of physical office visits has been most pronounced, while Eleme and Ahoada East show more gradual change consistent with their comparatively weaker enabling conditions. The comparatively lower mean recorded for improved responsiveness of officials to citizens' needs (mean = 3.03) suggests that while respondents acknowledged improvements in responsiveness, the gains remain modest, a pattern consistent with the observation that the responsiveness benefits of e-governance in Nigerian local governments are often limited by inadequate infrastructure, staff resistance to change and the persistence of manual administrative cultures alongside digital systems, producing a hybrid administrative environment in which digitisation's efficiency gains are diluted by continuing manual fallback procedures (Adoghe & Cao, 2018; Salako & Bamiro, 2023). This is particularly relevant to Ahoada East, where ICT adoption remains nascent, and to parts of Eleme where industrial infrastructure supports connectivity in some zones but leaves others underserved.

Theoretically, these findings confirm the TAM proposition that perceived usefulness is a primary driver of technology adoption: respondents' agreement that e-governance has improved service quality, reduced delays, enhanced communication, increased transparency and improved responsiveness indicates that digital governance tools are generally perceived as useful within the administrative ecosystems of the selected local government areas. However, the consistently moderate rather than high mean scores across all six items suggest that this

perceived usefulness is tempered by the practical constraints of operating in an environment where infrastructure is uneven and digital literacy gaps persist, extending TAM's explanatory power in developing-country contexts to account for external factors that mediate the relationship between user perception and actual technology use (Fang, 2002).

This finding is corroborated by Enaifoghe and Ndebele (2023), who found that improved ICT infrastructure enhances service delivery efficiency and institutional performance in local governments, and that the effectiveness of digital technologies in this specific tier of government is closely tied to the strength of the infrastructure supporting them rather than to the mere presence of digital policy. Applied to the three local government areas examined in this study, their argument helps explain why Obio-Akpor, with its comparatively stronger infrastructure, records the strongest perceived e-governance benefits, while Ahoada East, where infrastructure remains weak, shows more modest gains despite operating under the same state-level digital governance policy framework. This reinforces the conclusion that infrastructure investment, rather than policy adoption alone, is the binding constraint on realising e-governance's full potential for service delivery at the local government level in Rivers State.

Information Accessibility and Service Delivery

The findings establish a statistically significant influence of information accessibility on service delivery, evidenced by a cluster mean of 3.05 and a chi-square value of 63.7, which exceeds the critical value of 7.815. This confirms that the relationship between information accessibility and service delivery is not random but systematically meaningful, situating the study within the broader argument that information is a foundational resource for effective governance, and that its accessibility determines both the quality of services delivered and the extent to which citizens are empowered to participate meaningfully in governance processes (Norris, 2001). The finding that access to government information improves service delivery quality obtained the highest individual mean in this objective (mean = 3.18), reflecting strong consensus that the link between information and service quality is practically evident to respondents. This is consistent with the argument that access to information is a key determinant of civic awareness and governance quality, and that digital systems making government information more accessible can significantly improve the relationship between public institutions and the citizens they serve (Norris, 2001). This suggests that the information-sharing dimension of e-governance, through digital notice boards, government websites, social media platforms and electronic communication channels, is among the most tangible benefits perceived by both local government staff and citizens in the selected LGAs.

The comparatively lower mean scores on ease of access to information about local government programmes (mean = 2.95) and timeliness of information receipt (mean = 2.90) are particularly noteworthy. While both scores still exceed the criterion mean of 2.50, they suggest that even where information is made available through digital channels, its accessibility and timeliness remain suboptimal, consistent with the critique that e-governance systems often succeed in making information technically available but fail to ensure it is delivered in a timely, comprehensible and genuinely accessible manner to all segments of the citizen population (Bannister & Connolly, 2020). In the local government context studied, the disparity between urban Obio-Akpor, where information is more readily accessible through multiple digital channels, and rural Ahoada East, where information often arrives through informal networks or physical meetings, illustrates this gap clearly. From the perspective of TAM, the finding that information accessibility positively influences service delivery aligns with the theory's core proposition that perceived usefulness drives technology adoption and use: when citizens and staff perceive that digital information channels provide timely, relevant and actionable

information, they are more likely to engage consistently with those channels, reinforcing the positive feedback loop between digital engagement and service quality. However, the moderate mean scores suggest that the perceived usefulness of information systems in the selected LGAs has not yet reached the threshold needed to produce transformational improvements in service delivery, underscoring the need for sustained investment in digital information infrastructure combined with capacity building for both government staff and citizens.

Taken together, the findings on both objectives point to a shared conclusion that neither would fully reveal on its own. Communication has improved more than responsiveness, and information availability has improved more than information timeliness, and in both cases the common thread is that the first-order benefit of digitisation, making channels and content available, has been realised more fully than the second-order benefit of making government act on and deliver through those channels quickly. This pattern suggests that Rivers State's local government e-governance programme has so far been more successful at building digital front doors than at re-engineering the administrative processes that operate behind them, a distinction with direct implications for how future investment should be prioritised: continued expansion of digital channels without corresponding attention to internal processing speed and responsiveness risks producing diminishing returns, whereas targeted investment in the administrative and human dimensions of service delivery could unlock substantially more of the value that citizens and staff already perceive digital governance as capable of providing.

VIII. Key Findings

- i. There is a statistically significant and positive relationship between e-governance and service delivery in Obio-Akpor, Eleme and Ahoada East Local Government Areas, with a cluster mean of 3.09 and a chi-square value of 81.4, well above the critical value of 7.815. This confirms that the relationship is not incidental but a systematic and reliable feature of how digital governance functions at the grassroots level in these three local government areas.
- ii. Digital platforms have most strongly improved communication between citizens and local government officials (mean = 3.15), while improved responsiveness of officials to citizens' needs recorded the lowest mean within this objective (mean = 3.03), indicating that responsiveness gains lag behind communication gains. This gap suggests that digital tools have made it easier for citizens to reach local government officials without yet fully transforming how quickly or effectively those officials act on what they hear.
- iii. Information accessibility has a statistically significant influence on service delivery, with a cluster mean of 3.05 and a chi-square value of 63.7, well above the critical value of 7.815. The strength of this relationship confirms that information accessibility functions as a distinct and independently important driver of service delivery outcomes, not merely as a by-product of broader e-governance adoption.
- iv. Access to government information was most strongly perceived to improve service delivery quality (mean = 3.18), while timeliness of information receipt was the weakest-performing item across both objectives (mean = 2.90), indicating that although digital channels have improved information availability, the speed of information delivery remains an area requiring improvement. This distinction between availability and timeliness is important because it shows that simply publishing information digitally is not sufficient; the information must also reach citizens quickly enough to be useful for the decisions and service requests they are making.
- v. Outcomes for both objectives vary across the three local government areas, with Obio-Akpor, the most urbanised and infrastructure-rich LGA, showing the strongest perceived benefits, and Ahoada East, the most rural LGA, returning the most cautious assessments, reflecting the digital divide between urban and rural local government administration in Rivers

State. This geographic variation within a single state demonstrates that e-governance outcomes cannot be assumed uniform even under the same state-level policy framework, and that local infrastructure and capacity conditions remain decisive.

IX. Conclusion

This study set out to examine the relationship between e-governance and service delivery, and to assess information accessibility in relation to service delivery, in Obio-Akpor, Eleme and Ahoada East Local Government Areas of Rivers State between 2015 and 2025. The evidence gathered from 120 respondents establishes that e-governance is significantly and positively related to service delivery, and that information accessibility significantly influences service delivery, in the selected local government areas, with both relationships confirmed well beyond the conventional threshold for statistical significance. Read through the Technology Acceptance Model, these findings confirm that digital governance tools in Rivers State's local government system are generally perceived as useful, but that this perceived usefulness translates into service delivery improvement unevenly, mediated by external factors such as infrastructure availability, digital literacy and institutional readiness that vary considerably across Obio-Akpor, Eleme and Ahoada East. The comparatively weaker performance of responsiveness within Objective 1 and of information timeliness within Objective 2 indicates that the benefits of e-governance and information accessibility, while real and statistically robust, have not yet reached their full potential at the grassroots level. The study concludes that strengthening service delivery in Rivers State's local government system requires sustained attention to both the technological and human dimensions of digital governance, closing the infrastructure and digital literacy gaps that currently produce uneven outcomes across the three local government areas studied, so that the demonstrated benefits of e-governance and information accessibility can be more fully and evenly realised. These conclusions are drawn from a cross-sectional survey of 120 respondents across three local government areas rather than from a longitudinal tracking of service delivery outcomes over the full 2015-2025 study period. Future research that follows the same local government areas over time, or that triangulates survey findings with administrative records and citizen satisfaction data, would usefully extend this study's findings by capturing how the relationships identified here evolve as infrastructure and digital literacy conditions change, while the statistical strength and consistency of the relationships confirmed in this study provide a reasonably firm evidentiary basis for the policy response recommended below in the interim.

X. Recommendations

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

- i. The Rivers State Government should prioritise the expansion of broadband internet infrastructure and the stabilisation of electricity supply across all local government areas, with particular urgency for Ahoada East, which faces the most acute infrastructure deficit, since this study's findings show that e-governance's benefits for service delivery depend heavily on reliable underlying infrastructure.
- ii. Local government authorities, supported by the Rivers State Government, should develop an integrated local government information management system with a publicly accessible citizen portal providing real-time information on local government activities, service availability and project status, directly addressing the information-timeliness and accessibility gaps identified in this study.
- iii. A structured digital literacy programme should be established for both local government staff and citizens across Obio-Akpor, Eleme and Ahoada East, combining in-office training, mobile-accessible learning platforms and community sensitisation, since this study

confirms that the usefulness of e-governance and information systems is only realised when users are equipped to engage with them effectively.

iv. Local government authorities should strengthen internal change management and institutional support for e-governance adoption, including staff involvement in system design and clear communication of the benefits of digital tools, in order to close the gap between the comparatively strong communication gains and the weaker responsiveness gains identified under this study's first objective.

v. Local government authorities should establish clear internal service-level standards for information turnaround time, specifying how quickly citizen enquiries and requests for information must be acknowledged and resolved, since this study's findings show that the timeliness of information delivery, rather than its availability alone, is the weakest-performing dimension of information accessibility and therefore the aspect most in need of deliberate institutional attention.

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