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Research Article

E-GOVERNANCE AND SERVICE DELIVERY IN THE NIGERIAN CIVIL SERVICE: AN ASSESSMENT OF THE AKWA IBOM STATE CIVIL SERVICE

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Abstract

This study examined e-administration and service delivery in the Akwa Ibom State Civil Service, focusing on the electronic payroll system and digitization of official records. The study was motivated by persistent administrative challenges, including ghost workers, payroll irregularities, delays in information retrieval, poor record management, and inefficiencies associated with manual administrative processes. The study was anchored on the Technology Acceptance Model (TAM), which emphasized perceived usefulness and perceived ease of use as determinants of technology acceptance. A survey research design was adopted. The study focused on staff of the Akwa Ibom State Ministries of Finance and Education, with a population of 853 employees. A sample of 265 respondents was selected using stratified, purposive, and simple random sampling techniques. Data were collected through a structured four-point Likert-scale questionnaire. The instrument was validated by experts, while a pilot test involving 30 respondents produced a Cronbach's alpha coefficient of 0.906. Data were analyzed using Pearson Product Moment Correlation, with hypotheses tested at the 0.05 level of significance. The findings revealed a weak negative relationship between the electronic payroll system and reduction of ghost workers ($r = -0.36$), indicating limited impact on payroll irregularities. Digitization of official records also showed a weak positive relationship with information management ($r = 0.16$), suggesting modest improvements in record storage, retrieval, preservation, and accessibility. The study concluded that e-administration had

contributed to administrative modernization but remained constrained by inadequate infrastructure, limited staff capacity, incomplete data integration, and implementation challenges. Based on the findings, the study recommended among others for stronger system integration, regular audits, improved ICT infrastructure, and continuous staff training to enhance e-administration and service delivery.

Keywords: E-administration, electronic payroll, ghost workers, digitization, information management, service delivery.

Introduction

The increasing application of Information and Communication Technologies (ICTs) has transformed the organisation of government administration and the delivery of public services. Public institutions are increasingly moving from paper-based procedures to digital systems that facilitate faster information processing, improved records management, greater accessibility, transparency, and accountability. The World Bank (2024) notes that digital public infrastructure and integrated digital services can enhance government efficiency, accessibility, and responsiveness by connecting citizens and public institutions through secure and interoperable platforms. E-governance therefore extends beyond the use of computers and the internet to encompass the application of digital technologies in administrative processes, institutional management, communication, decision-making, and public service delivery.

The importance of e-governance is particularly evident in public administration, where excessive paperwork, fragmented information systems, bureaucratic procedures, and administrative delays can undermine service quality. Digital transformation provides opportunities to automate routine activities, improve personnel and financial information management, strengthen transparency, and reduce unnecessary administrative discretion. In Nigeria, the Federal Government has increasingly promoted digital transformation as part of efforts to modernise the civil service and make public administration more efficient and citizen-centred. The Federal Ministry of Communications, Innovation and Digital Economy (2024) identified digital public infrastructure as an important foundation for transforming the civil service and improving public service delivery. Similarly, reforms within the Federal Civil Service have introduced online learning platforms, official government email systems, and artificial-intelligence-supported applications to modernise administrative practices (Federal Ministry of Information and National Orientation, 2024).

Nigeria's commitment to digital governance is further reflected in the development of a formal legal and institutional framework. The National Digital Economy and E-Governance Act, 2024 provides a framework for transforming government processes and public institutions through digital technologies, with emphasis on efficient service delivery, openness, accountability, interoperability, and citizen-centred services. These developments demonstrate that e-governance has increasingly become part of broader public-sector reform rather than merely a technological initiative. However, translating digital policy into effective administrative outcomes remains challenging. Successful digital transformation requires reliable electricity and internet connectivity, adequate funding, cybersecurity, institutional coordination, interoperable systems, effective data management, and personnel with appropriate digital competencies. The World Bank (2024) emphasises that digital government requires not only technological infrastructure but also supportive institutions, regulatory safeguards, reliable data systems, and user-centred service design. Where these conditions are inadequate, digital technologies may deliver limited improvements or simply reproduce existing administrative weaknesses through electronic platforms.

These challenges are particularly significant at the sub-national level, where institutional and technological capacities vary. The Akwa Ibom State Civil Service provides an important context for assessing how digital reforms translate into administrative outcomes. The state has introduced digital technologies into aspects of its administrative operations, including electronic payroll and personnel management systems. These systems are intended to improve personnel-data accuracy, reduce payroll irregularities, strengthen financial accountability, and accelerate administrative processes. Tom, Akpan, and Bassey (2024), in their study of e-governance and service delivery in the Akwa Ibom State Civil Service, found that digital payroll and e-payment systems had potential to improve transparency and administrative efficiency, but identified inadequate infrastructure, limited technological access, resistance to change, and shortages of ICT-skilled personnel as continuing challenges. Williams and Atairet (2025) similarly found that digitalisation could improve service quality, processing speed, and accountability in Akwa Ibom State, although inadequate infrastructure, limited digital literacy, and resistance to organisational change constrained its effectiveness. Udo and Paul (2026) also found positive associations between e-government service delivery, digital transparency, ICT infrastructure, and public service transformation in Akwa Ibom State, while recommending further investment in infrastructure and digital literacy among public servants.

These findings indicate that the existence of digital platforms does not necessarily guarantee effective e-governance. The critical issue is the extent to which digital systems are consistently integrated into routine administrative operations and translated into better public services.

Service delivery encompasses the ability of government institutions to provide services that are timely, accessible, reliable, transparent, responsive, and efficient. A digital platform may be available while delays persist because employees lack the necessary skills, systems are poorly integrated, internet connectivity is unreliable, or manual procedures continue alongside electronic processes. Consequently, a distinction must be made between digitalisation as the introduction of technology and digital transformation as the effective reorganisation of administrative processes around that technology. This distinction creates an important research concern in the Akwa Ibom State Civil Service. Although existing studies have established the potential of e-governance to improve public administration and have identified infrastructure, digital literacy, institutional capacity, and resistance to change as major constraints, questions remain concerning the extent to which digital governance has translated into measurable improvements in actual service delivery. Tom et al. (2024) identified digital and institutional constraints within the Akwa Ibom State Civil Service, while Williams and Atairet (2025) and Udo and Paul (2026) continued to highlight infrastructure and digital-literacy challenges. Nevertheless, further empirical assessment is necessary to determine whether the adoption of digital administrative systems has substantially improved administrative speed, accessibility, responsiveness, transparency, coordination, and the overall quality of services provided by the state civil service.

The persistence of conventional bureaucratic practices further complicates the digital transformation process. Where digital platforms are introduced without corresponding changes in organisational culture, staff capacity, workflow arrangements, and accountability mechanisms, civil servants may continue to rely on manual procedures. The simultaneous operation of electronic and paper-based systems can create duplication, increase workloads, and undermine the efficiency gains expected from digitalisation. Similarly, inadequate maintenance, obsolete equipment, unstable connectivity, and limited technical support can affect the sustainability of digital initiatives. These conditions suggest that e-governance should be examined as an institutional reform process involving technology, people, organisational structures, and administrative practices. Against this background, the study

examined e-governance and service delivery in the Nigerian Civil Service, with particular reference to the Akwa Ibom State Civil Service. The study was therefore concerned not merely with the availability of digital technologies but with their actual utilisation and contribution to improving administrative performance and the delivery of public services.

Research Objective

i. To examine the effectiveness of the electronic payroll system in curbing ghost Workers in Akwa Ibom State civil service.

ii. To evaluate the impact of the digitization of official records on information management in Akwa Ibom State civil service

Research Questions

i. How effective is the electronic payroll system in curbing ghost workers in the Akwa Ibom State civil service?

ii. What impact has the digitization of official records had on information management in the Akwa Ibom State civil service?

Research hypotheses

i. The electronic payroll system is likely to significantly reduce the incidence of ghost workers in the Akwa Ibom State civil service.

ii. The digitization of official records tends to improve the efficiency and accuracy of information management in the Akwa Ibom State civil service.

Review of Conceptual Literature

Concept of E-Governance

E-governance refers to the use of information and communication technologies to transform the way government institutions operate, interact with citizens, manage public resources, and deliver services. It encompasses digital administrative processes such as electronic records management, digital communication, electronic payroll, human-resource management, workflow automation, online documentation, information sharing, and electronic interaction between government and citizens. In the Nigerian civil service, e-governance is increasingly viewed as an important mechanism for modernizing public administration by reducing paperwork, shortening administrative procedures, improving information management, strengthening accountability, and enhancing coordination among ministries, departments, and agencies. Evidence from Nigeria indicates that digital technologies can improve

administrative efficiency and service delivery, although their effectiveness depends on adequate infrastructure, institutional capacity, and competent personnel (Oloyede, 2024; Inakefe et al., 2024).

Despite its potential, the implementation of e-governance faces several challenges. One major concern is the digital divide, which reflects unequal access to computers, internet services, digital devices, and technological skills. Such inequalities may limit the ability of some civil servants and citizens to benefit fully from digital government initiatives. Nigerian studies have identified inadequate digital resources and limited digital capacity as significant barriers to effective e-governance implementation (Oghuvbu et al., 2022; Adenubi et al., 2024). Inadequate ICT infrastructure is another major constraint. Effective e-governance requires reliable electricity, internet connectivity, computers, servers, appropriate software, and secure systems for managing government information. Where these facilities are inadequate or poorly maintained, public institutions may continue to rely heavily on manual procedures despite the introduction of digital platforms. Inakefe et al. (2024) found that inadequate digital tools, internet facilities, insufficient financing, and weak institutional commitment constrained e-governance implementation in the Cross River State Civil Service.

The effectiveness of e-governance also depends on digital skills and institutional capacity. Civil servants must possess the knowledge and confidence required to operate electronic systems effectively. Inadequate training can result in underutilization of digital platforms, processing errors, and continued reliance on traditional administrative practices. Studies in Nigeria have emphasized the importance of digital literacy, professional competence, training, and institutional support in converting technological investments into improved public-sector performance (Adenubi et al., 2024; Oloyede, 2024). Institutional resistance and organizational adjustment also influence e-governance adoption. The transition from paper-based to digital administration changes established procedures, responsibilities, communication patterns, and administrative practices. Employees may therefore resist new systems where they perceive them as difficult, disruptive, or inadequately supported. Inakefe et al. (2024) observed that limited resources, weak institutional arrangements, and inadequate implementation commitment could constrain digital transformation within state civil services.

Cybersecurity, privacy, and data protection constitute additional concerns. Government institutions manage sensitive information relating to employees, citizens, finances, and public programmes. Weak security systems may expose such information to unauthorized access,

loss, manipulation, or other forms of misuse. Effective e-governance therefore requires secure information systems, appropriate access controls, reliable data-management procedures, and institutional mechanisms for protecting digital information. E-governance also has important implications for transparency and accountability. Properly implemented digital systems can generate electronic records, improve traceability, reduce unnecessary face-to-face interactions, and facilitate the monitoring of administrative activities. However, technology alone cannot guarantee accountability. Its effectiveness depends on responsible leadership, effective supervision, clear procedures, and institutional controls. Ajisebiyawo and Ilawagbon (2024) noted that e-administration can help address challenges such as manual record keeping, bureaucratic delays, corruption, and limited access to timely information within Nigeria's public service.

Concept of Service Delivery

Service delivery refers to the process through which government institutions translate policies, resources, and administrative decisions into services that meet citizens' needs. It includes education, healthcare, water, sanitation, electricity, transportation, social protection, and administrative services, making it a key measure of government performance. In Nigeria, the quality of service delivery continues to be influenced by administrative capacity, infrastructure, institutional effectiveness, and responsiveness to citizens (Okafor, 2023; Oloyede, 2024). Effective service delivery involves several dimensions, including effectiveness, efficiency, accessibility, quality, equity, transparency, accountability, and responsiveness. Effectiveness concerns the extent to which services achieve their intended objectives, while efficiency focuses on minimizing delays, waste, and unnecessary procedures. Accessibility and equity require services to be available to citizens regardless of location, income, or social circumstances. Inakefe et al. (2024) found that inadequate digital infrastructure and insufficient ICT financing constrained service delivery, while Oloyede (2024) noted that technological integration could improve administrative processes despite implementation challenges.

Digitalization has increasingly become an important means of improving service delivery through electronic records, online applications, automated processes, digital communication, and electronic payments. These technologies can reduce paperwork, improve information management, shorten processing time, and strengthen administrative coordination. Adeyinka and Adewumi (2023) emphasized the potential of digital and agile practices to improve

responsiveness and efficiency in public institutions. However, digital service delivery may also create exclusion where citizens lack internet access, digital skills, or appropriate devices. Oghuvbu et al. (2022) identified the digital divide and infrastructure deficits as major challenges to e-governance in Nigeria. Transparency and accountability also remain important, as digital systems can improve record-keeping and monitoring but require effective institutional controls and responsible leadership (Ihemadu & Anyiam, 2024). In the Akwa Ibom State Civil Service, service delivery therefore concerns the extent to which government institutions provide timely, accessible, efficient, equitable, transparent, and responsive services. Its effectiveness depends not merely on the availability of digital technologies but on the capacity of civil servants, infrastructure, institutional support, and the extent to which e-governance produces tangible improvements in administrative performance and citizens' experiences.

E-Governance and Service Delivery: The Nexus

E-governance, civil service capacity, and service delivery are interconnected components of contemporary public administration. E-governance provides the digital tools for managing information, records, communication, and government–citizen interactions, while civil servants provide the human and institutional capacity needed to operate these systems. Service delivery represents the practical outcome through which the effectiveness of e-governance can be assessed. Ogu and Chukwurah (2023) found that e-governance improved service delivery through administrative automation, better communication, and reduced bureaucratic procedures. E-governance can improve administrative efficiency by reducing paperwork, simplifying procedures, facilitating information retrieval, and speeding up communication. Oloyede (2024) notes that electronic governance can make government processes more efficient and improve interaction between public institutions and citizens. However, these benefits depend substantially on the digital competence of civil servants. Inakefe et al. (2023) found that inadequate digital literacy and insufficient training constrained e-governance adoption in the civil service, demonstrating that technology alone cannot improve service delivery.

Infrastructure and institutional capacity are also essential. Reliable electricity, internet connectivity, ICT equipment, data systems, cybersecurity, and technical support are necessary for effective digital administration. Inakefe et al. (2024) and Oluyemi and Odigie (2024) identified infrastructural limitations, inadequate technical capacity, and weak institutional

support as major constraints to e-governance implementation in Nigeria. E-governance can further improve accessibility, responsiveness, transparency, and accountability by enabling citizens to access information and services electronically and by making administrative transactions more traceable. However, unequal digital access, limited digital literacy, poor connectivity, and resistance to organizational change may restrict these benefits. Olabimitan et al. (2025) therefore emphasized the importance of digital literacy and connectivity in achieving effective e-governance.

The e-governance, civil service capacity, and service delivery form a mutually dependent relationship. Effective digital systems, competent personnel, adequate infrastructure, institutional support, and willingness to embrace technological change are necessary for e-governance to produce meaningful improvements in public service delivery. In the Akwa Ibom State Civil Service, therefore, assessing e-governance requires examining not only the availability of digital systems but also their utilization by civil servants and their actual contribution to efficient, accessible, responsive, and accountable service delivery.

Review of Empirical Literature

Empirical research on e-governance and service delivery in Nigeria generally shows that digital technologies can improve administrative efficiency, accessibility, transparency, and responsiveness, but the outcomes depend heavily on infrastructure, digital competence, institutional capacity, and users' willingness to adopt electronic services. The following studies provide relevant empirical evidence for the present study on e-governance and service delivery in the Akwa Ibom State Civil Service. Inakefe et al. (2023) examined digital literacy and e-governance adoption for service delivery in the Cross River State Civil Service. The study employed a case-study approach to investigate whether inadequate training and limited digital competence affected the implementation of e-governance. The researchers found that insufficient in-service training and inadequate cooperation among civil servants weakened the adoption of digital reforms and prevented e-governance from producing corresponding improvements in service delivery. They concluded that digital transformation would be more effective when civil servants possess appropriate digital skills and demonstrate willingness to embrace organizational change. The study is relevant to the present research because it demonstrates that the effectiveness of e-governance depends not only on technological availability but also on the capacity and attitude of civil servants.

Enwelu and Nnaji (2023) investigated the effect of e-governance on employee service delivery in the Anambra State Civil Service Commission, Awka. Using a survey-based approach, the researchers examined how digital technologies influenced administrative activities and employee performance. Their findings indicated that e-governance could make work routines, documentation, information sharing, consultation, monitoring, and communication easier and less cumbersome. The authors consequently recommended stronger investment in ICT infrastructure and computer literacy among public servants. The study provides useful evidence for the present research because it directly connects e-governance with the internal performance of civil servants, which subsequently affects the quality of services delivered to citizens.

Ogu, Abasili, and Virginia (2023) studied the challenges and measures for improving the application of e-governance in service delivery in the Anambra State Civil Service. The researchers adopted a survey design, using a population of 6,955 civil servants and a sample of 361 respondents determined through the Krejcie and Morgan approach. Their investigation focused specifically on the constraints affecting the effective use of e-governance. The study identified infrastructural limitations, inadequate technological capacity, and other implementation difficulties as important barriers to effective digital service delivery. The authors emphasized the need for appropriate institutional and technological support to ensure that e-governance produces meaningful improvements in public services. This study complements the present research by shifting attention from the existence of e-governance systems to the practical challenges affecting their utilization.

Ndema (2024) examined the effect of e-governance on service delivery in selected ministries of the Enugu State Civil Service. The study focused on the conversion of conventional paper-based administrative processes into electronic procedures and examined their implications for transparency, accountability, timeliness, and efficiency. The study found that e-governance has the potential to improve administrative processes and service delivery by facilitating easier information management and reducing the difficulties associated with conventional bureaucratic procedures. However, the study also recognized that successful implementation requires appropriate technological and institutional support. Its relevance to the present study lies in its direct examination of e-governance within a state civil service, providing a useful basis for comparison with the Akwa Ibom State experience.

Tom, Ukpong, and Ebong (2024) specifically examined e-governance and service delivery in the Akwa Ibom State Civil Service. Their study focused on e-payment systems and digital payroll technologies, particularly their implications for transparency, accountability, payroll management, and the elimination of ghost workers. Using documentary evidence and a descriptive approach, the researchers found that digital technologies have the potential to improve administrative and financial management, although challenges such as inadequate infrastructure, limited technological access, resistance to change, and shortages of skilled ICT personnel constrain the benefits of e-governance. The study is particularly important to the present research because it provides direct evidence from Akwa Ibom State. However, its reliance on documentary evidence creates room for further empirical investigation using primary data from civil servants and other relevant stakeholders.

Inakefe, Bassey, and Amadi (2024) investigated the policy and institutional implications of digital tools for e-governance implementation and service delivery in the Cross River State Civil Service. The researchers adopted a mixed-methods design, drawing 374 respondents from a population of 1,123 civil servants through proportionate and random sampling. In addition, interviews were conducted with 13 permanent secretaries. Quantitative data were analyzed using one-way ANOVA, while qualitative information was subjected to descriptive analysis. The study found that inadequate ICT tools hindered effective service delivery and that insufficient budgetary provision for ICT was an important factor responsible for the shortage of digital resources. The researchers therefore recommended stronger financing, digital literacy training, and improved provision of ICT facilities. This study is particularly relevant because it demonstrates empirically how technological resources and institutional financing can influence the effectiveness of e-governance within a state civil service.

Olabimitan, Ogunmodede, and John (2025) investigated the relationship between e-governance and public service delivery in Nigeria using a survey research design and structured Likert-scale questionnaires. Their study focused on factors such as digital literacy, internet penetration, and mobile network coverage and how these conditions affect the effectiveness of electronic government services. The findings indicate that although e-governance can improve public service delivery by making services more citizen-oriented and efficient, inadequate digital skills, limited internet access, and insufficient network coverage continue to constrain its effectiveness. The authors therefore emphasized the importance of improving digital literacy and expanding digital infrastructure. The study is relevant to the

present research because it demonstrates that service delivery outcomes are shaped by both the availability of e-governance systems and the broader digital environment in which they operate.

Review of Comparative Literature

Comparative literature indicates that the development of e-governance varies across countries according to differences in institutional capacity, digital infrastructure, human resources, administrative culture, and political commitment. Digital government has increasingly moved beyond the simple computerisation of administrative activities towards integrated systems that reshape organisational processes and government–citizen relationships. Janowski (2015) explains this progression as a movement from digitisation and transformation towards engagement and context-specific digital governance. Similarly, Mergel et al. (2019) argue that digital transformation involves changes in organisational structures, administrative culture, processes, and relationships with citizens rather than merely introducing new technologies. Experiences from technologically advanced countries demonstrate the importance of strong institutions and coordinated digital infrastructure. Countries such as Estonia, Denmark, Singapore, and South Korea have developed integrated digital-government systems that combine online services, digital identification, data management, interoperability, and citizen-oriented platforms. The United Nations Department of Economic and Social Affairs (2024) reports that global digital-government development has generally improved, although substantial differences remain between countries and regions. The report further indicates that African countries continue to record lower average levels of digital-government development than the global average, highlighting persistent differences in infrastructure, human capacity, and institutional readiness.

The experiences of developing countries, particularly in Africa, present a more mixed picture. Countries such as Rwanda, Kenya, and South Africa have made significant progress in developing online government services, digital identification systems, electronic payments, and other digital platforms. However, these advances coexist with problems of unequal connectivity, affordability, digital skills, and institutional capacity. The comparative evidence therefore suggests that introducing online platforms does not automatically guarantee inclusive service delivery. Citizens must also possess the infrastructure, skills, resources, and confidence required to use such platforms effectively. Nigeria provides an important example of this implementation challenge. The country has made progress in developing digital

platforms and expanding digital infrastructure, but significant gaps remain in connectivity, digital skills, access, and institutional capacity. The World Bank Group's Nigeria Digital Economy Diagnostic identifies digital infrastructure, digital platforms, digital financial services, entrepreneurship, and digital skills as fundamental pillars for Nigeria's digital transformation. It also highlights inadequate connectivity in rural areas and the need for sustained investment to expand the benefits of digitalisation.

The Nigerian experience also demonstrates the difference between digital adoption and effective digital transformation. The establishment of electronic platforms does not necessarily mean that bureaucratic processes have become faster, more transparent, or more responsive. Heeks (2003) explains that digital-government projects in developing countries may experience an implementation gap when the assumptions underlying technological reforms do not correspond with the institutional, organisational, and socioeconomic realities of the implementing environment. This perspective is particularly relevant to the civil service, where digital systems require appropriate infrastructure, skilled personnel, organisational commitment, and effective coordination to produce meaningful improvements in administrative performance.

Comparatively, developed countries have generally progressed towards integrated, interoperable, data-driven, and citizen-centred digital government, whereas many developing countries are still addressing foundational challenges such as connectivity, digitisation of records, digital skills, and institutional capacity. Janowski (2015) demonstrates that digital government evolves progressively as governments move from basic technology adoption towards organisational transformation, citizen engagement, and context-sensitive governance. This progression suggests that Nigeria's challenge is not simply to acquire more digital technologies but to create the institutional conditions necessary for those technologies to improve public administration. The literature further shows that institutional capacity and human resources are as important as technological infrastructure. Mergel et al. (2019) emphasise that successful digital transformation involves organisational culture, leadership, employee capabilities, administrative processes, and relationships with service users. Thus, investment in technology without corresponding investment in civil-service capacity may produce limited improvements in service delivery. For Nigeria, this means that digital reforms should be supported by continuous ICT training, reliable electricity and internet connectivity,

effective data management, cybersecurity, institutional coordination, and mechanisms for evaluating citizens' experiences of digital services.

Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM) developed by Davis (1989) to explain individuals' acceptance and use of information technologies. TAM identifies perceived usefulness the belief that a technology improves job performance and perceived ease of use the belief that it can be used with minimal effort as the major determinants of technology acceptance (Davis, 1989). Applied to the Akwa Ibom State Civil Service, the model suggests that civil servants are more likely to adopt e-governance systems when they believe that such systems can simplify administrative tasks, improve productivity, reduce delays, and enhance service delivery. Venkatesh and Davis (2000) further demonstrate that perceived usefulness is shaped by social and organizational factors, making TAM relevant to understanding technology adoption within public institutions. Perceived usefulness is particularly important because e-governance should produce measurable improvements in administrative performance. Civil servants are more likely to use electronic payroll systems, digital records, online communication platforms, and other ICT applications when these technologies improve the speed, accuracy, and effectiveness of their work. Venkatesh et al. (2003) similarly found that performance-related expectations significantly influence technology-use intentions. Perceived ease of use is equally important because technically capable systems may remain underutilized when employees find them complicated or difficult to operate. Davis (1989) established that ease of use influences both perceived usefulness and users' willingness to accept technology. Thus, user-friendly, reliable, and accessible e-governance platforms are more likely to be incorporated into routine civil service activities.

TAM also recognizes the relevance of external and organizational conditions. Venkatesh et al. (2003) identified factors such as performance expectations, effort expectations, social influence, and facilitating conditions as important influences on technology use. In the Akwa Ibom State Civil Service, factors such as ICT infrastructure, internet connectivity, electricity supply, technical support, management commitment, and availability of appropriate equipment can therefore shape employees' perceptions and actual use of e-governance systems. Similarly, training and organizational support can strengthen employees' confidence and willingness to use new technologies, while inadequate training may increase perceptions of difficulty and discourage adoption (Venkatesh & Bala, 2008). The model is also relevant to

understanding resistance to technological change. Civil servants accustomed to manual administrative procedures may resist digital systems when they perceive them as complicated, disruptive, or unnecessary. Demonstrating practical benefits such as reduced paperwork, faster processing, easier retrieval of records, improved communication, and greater administrative accuracy can enhance acceptance (Davis, 1989). However, technology acceptance alone does not determine the success of e-governance. Institutional culture, leadership, infrastructure, policies, organizational support, and other administrative conditions also influence implementation (Venkatesh et al., 2003; Venkatesh & Bala, 2008).

For this study, TAM establishes a logical link between e-governance adoption and service delivery. When civil servants perceive digital systems as useful and easy to use, their willingness to adopt and consistently utilize them is expected to increase, potentially resulting in faster administrative processes, improved information management, reduced delays, better coordination, and more responsive service delivery. Conversely, poor usability, inadequate training, weak infrastructure, and limited perceived benefits may reduce technology adoption and weaken its contribution to service delivery. Thus, TAM provides an appropriate framework for examining not merely the availability of e-governance technologies in the Akwa Ibom State Civil Service, but also the extent to which civil servants accept, utilize, and integrate these technologies into their everyday administrative activities.

Research Design

The study adopted a descriptive and survey research designs to examine the relationship between e-governance and service delivery in the Akwa Ibom State Civil Service. The study was conducted in the Ministries of Finance and Education, selected because of their strategic roles in financial administration, human-capital development, and the delivery of public services. The study population comprised 853 employees, consisting of 441 staff of the Ministry of Education and 412 staff of the Ministry of Finance, based on the Akwa Ibom State Civil Service Annual Report (2024). A sample of 265 respondents was determined using the Krejcie and Morgan approach. A multi-stage sampling technique involving stratified, purposive, and simple random sampling was used to ensure adequate representation of relevant departments and eligible civil servants. Primary data were collected through a structured questionnaire designed on a four-point Likert scale, while relevant official documents, reports, policy materials, and previous studies provided secondary information. The questionnaire was subjected to face and content validation by academic supervisors,

while its reliability was established through a pilot study involving 30 staff outside the main sample. The Cronbach's Alpha coefficient of 0.906 indicated a high level of internal consistency. Data collected were analyzed using descriptive statistics, while Pearson Product-Moment Correlation was employed to determine the relationship between e-governance and service delivery. The hypotheses were tested at the 0.05 level of significance. This design enabled the study to obtain empirical evidence from civil servants on the extent to which e-governance practices influence administrative efficiency, responsiveness, transparency, and overall service delivery in the Akwa Ibom State Civil Service

Demographic Characteristics of Respondents

In this section the demographic characteristic include Sex, Age, Educational Qualification and Marital Status were presented in separated tables for the options per variable distribution in frequencies and percentages.

Table 1: Demographic Characteristics of Respondents by Ministry (N = 265)

Characteristics	Ministry of Finance (N = 147)	Ministry of Education (N = 118)	Total (N = 265)	Percentage (%)
Sex				
Male	78	67	145	54.7
Female	69	51	120	45.3
Total	147	118	265	100.0
Age				
18–30 years	48	42	90	34.0
31–40 years	52	45	97	36.6
41–50 years	34	27	61	23.0
50 years and above	13	4	17	6.4
Total	147	118	265	100.0

Educational Qualification				
SSCE	6	8	14	5.3
ND/HND	28	24	52	19.6
B.SC.	77	59	136	51.3
PGD/M.SC.	26	21	47	17.7
Others	10	6	16	6.0
Total	147	118	265	100.0
Marital Status				
Married	91	71	162	61.1
Single	43	39	82	30.9
Divorced	9	4	13	4.9
Widowed/Others	4	4	8	3.0
Total	147	118	265	100.0

Source: Field Survey, 2026

Testing of Hypotheses

Table 2: Testing of hypothesis one:

H_{01}: The electronic payroll system does not significantly reduce the incidence of ghost workers in the Akwa Ibom State civil service.

H_{11}: The electronic payroll system has significantly reduced the incidence of ghost workers in the Akwa Ibom State civil service.

S/N	Questionnaire Items	SA	A	D	SD	Total
1	The implementation of the electronic payroll system has significantly reduced the number of ghost workers in Akwa Ibom State civil service.	70	80	55	54	259
2	The electronic payroll system is effective in identifying discrepancies in employee records and preventing fraudulent payments.	65	85	60	49	259
3	Since the introduction of the electronic payroll system, there has been a noticeable improvement in the accuracy of payroll disbursements.	68	78	58	55	259
4	The electronic payroll system has facilitated the timely detection and removal of ghost workers from the payroll.	60	82	65	52	259
5	The transparency of the electronic payroll system has increased the accountability of employees in the Akwa Ibom State civil service.	72	76	57	54	259

Source: Field Work, 2026

Table 3: Pearson Product Moment Correlation Analysis on the Effectiveness of the Electronic Payroll System in Curbing Ghost Workers in Akwa Ibom State Civil Service

Weighted Scores of Responses

S/N	SA (4)	A (3)	D (2)	SD (1)	Weighted Score Calculation	Total Score (Y)
1	70×4 = 280	80×3 = 240	55×2 = 110	54×1 = 54	280 + 240 + 110 + 54	684
2	65×4 = 260	85×3 = 255	60×2 = 120	49×1 = 49	260 + 255 + 120 + 49	684
3	68×4 = 272	78×3 = 234	58×2 = 116	55×1 = 55	272 + 234 + 116 + 55	677

4	60×4 = 240	82×3 = 246	65×2 = 130	52×1 = 52	240 + 246 + 130 + 52	668
5	72×4 = 288	76×3 = 228	57×2 = 114	54×1 = 54	288 + 228 + 114 + 54	684

Table 4: Computation of Pearson Correlation Coefficient

X	Y	XY	X^2	Y^2
1	684	684	1	467856
2	684	1368	4	467856
3	677	2031	9	458329
4	668	2672	16	446224
5	684	3420	25	467856
ΣX = 15	**ΣY = 3397**	**ΣXY = 10175**	**ΣX^2 = 55**	**ΣY^2 = 2308121**

Pearson Correlation Formula

Formula

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[\, N\Sigma X^2 - (\Sigma X)^2][\, N\Sigma Y^2 - (\Sigma Y)^2 \,]}}$$

Table 5: Substitution and Computation

Step	Computation
Step 1	$r = \frac{5(10175) - (15)(3397)}{\sqrt{\{\, [5(55) - 15^2][5(2308121) - 3397^2] \,\}}}$
Step 2	$r = \frac{50875 - 50955}{}$

	$\sqrt{\{(275-225)(11540605-11539609)\}}$
Step 3	$r = \frac{-80}{\sqrt{(50 \times 996)}}$
Step 4	$r = \frac{-80}{223.16}$
Final Result	$r = -0.36$

Summary of Pearson Correlation Result

Variables	Value
Pearson Correlation Coefficient (r)	-0.36
Nature of Relationship	Weak Negative Correlation
Decision	Weak inverse relationship exists

Interpretation

The Pearson correlation coefficient of -0.36 indicates a weak negative relationship between the electronic payroll system and the curbing of ghost workers in the Akwa Ibom State Civil Service. The negative direction suggests an inverse relationship, while the low coefficient indicates that the association is weak and not sufficiently consistent across respondents. Although respondents recognized that the electronic payroll system has contributed to reducing payroll irregularities and ghost-worker practices, its effect appears limited and may vary across departments. The weak relationship may be associated with implementation challenges, inconsistent compliance with payroll procedures, technical limitations, and persistent administrative inefficiencies. In relation to the null hypothesis, which states that there is no significant relationship between the electronic payroll system and the curbing of ghost workers in the Akwa Ibom State Civil Service, the finding supports the acceptance of

the null hypothesis. Thus, while the electronic payroll system may have contributed to some reduction in ghost workers, the observed relationship is not sufficiently strong to establish a statistically significant association between the two variables.

Testing of hypothesis two:

H_{02}: The digitization of official records does not significantly improve the efficiency and accuracy of information management in the Akwa Ibom State civil service.

H_{12}: The digitization of official records significantly improve the efficiency and accuracy of information management in the Akwa Ibom State civil service.

S/N	Questionnaire Items	SA	A	D	SD	Total
6	The digitization of official records has significantly improved the efficiency of information retrieval in the Akwa Ibom State civil service.	68	82	55	54	259
7	Since the digitization of records, there has been a noticeable reduction in the time spent managing physical documents in the civil service.	70	80	60	49	259
8	The availability of digital records has enhanced collaboration between departments in the Akwa Ibom State civil service.	65	85	58	51	259
9	Digitization of official records has reduced the risk of data loss and mismanagement in the Akwa Ibom State civil service.	72	78	55	54	259
10	The digital record system has enhanced overall information management in the civil service.	69	81	57	52	259

Table 7: Pearson Product Moment Correlation Analysis on the Impact of Digitization of Official Records on Information Management in Akwa Ibom State Civil Service

Weighted Scores of Responses

S/N	SA (4)	A (3)	D (2)	SD (1)	Weighted Score Calculation	Total Score (Y)
6	68×4 = 272	82×3 = 246	55×2 = 110	54×1 = 54	272 + 246 + 110 + 54	682

7	70×4 = 280	80×3 = 240	60×2 = 120	49×1 = 49	280 + 240 + 120 + 49	689
8	65×4 = 260	85×3 = 255	58×2 = 116	51×1 = 51	260 + 255 + 116 + 51	682
9	72×4 = 288	78×3 = 234	55×2 = 110	54×1 = 54	288 + 234 + 110 + 54	686
10	69×4 = 276	81×3 = 243	57×2 = 114	52×1 = 52	276 + 243 + 114 + 52	685

Table 8: Computation of Pearson Correlation Coefficient

X	Y	XY	X^2	Y^2
6	682	682	1	465124
7	689	1378	4	474721
8	682	2046	9	465124
9	686	2744	16	470596
10	685	3425	25	469225
ΣX = 15	**ΣY = 3424**	**ΣXY = 10275**	**ΣX² = 55**	**ΣY² = 2344790**

Pearson Correlation Formula

Formula

$$r = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[\, N\Sigma X^2 - (\Sigma X)^2 \,][\, N\Sigma Y^2 - (\Sigma Y)^2 \,]}}$$

TABLE 9: Substitution and Computation

Step	Computation

Step 1	$r = \frac{5(10275) - (15)(3424)}{\sqrt{\{ [5(55) - 15^2][5(2344790) - 3424^2] \}}}$
Step 2	$r = \frac{51375 - 51360}{\sqrt{\{ (275 - 225)(11723950 - 11723776) \}}}$
Step 3	$r = \frac{15}{\sqrt{(50 \times 174)}}$
Step 4	$r = \frac{15}{93.27}$
Final Result	r = 0.16

Table 4.3.10 Summary of Pearson Correlation Result

Variables	Value
Pearson Correlation Coefficient (r)	0.16
Nature of Relationship	Weak Positive Correlation
Decision	Weak direct relationship exists

Interpretation

The Pearson correlation coefficient of 0.16 indicates a weak positive relationship between digitization of official records and information management in the Akwa Ibom State Civil Service. This suggests that increased digitization is associated with some improvements in record retrieval, storage, preservation, and administrative coordination. However, the weak coefficient indicates that the effect is limited, possibly due to inadequate ICT infrastructure, poor internet connectivity, insufficient staff training, inconsistent implementation, and resistance to technological change. The finding supports the acceptance of the null hypothesis,

which states that there is no significant relationship between digitization of official records and information management in the Akwa Ibom State Civil Service. Thus, although digitization has some positive influence on information management, the relationship is not sufficiently strong to establish statistical significance.

Conclusion

The study concluded that e-governance had contributed to the modernization of the Akwa Ibom State Civil Service, particularly through electronic payroll administration and digitization of official records. However, the findings showed that these reforms had produced only limited improvements. The electronic payroll system had some influence on reducing ghost workers, while digitization had contributed to better information management, but neither relationship was sufficiently strong to establish a significant effect. The study therefore concluded that the availability of digital technologies alone could not guarantee improved administrative performance. Their effectiveness depended on reliable infrastructure, accurate and updated databases, adequate staff skills, effective monitoring, institutional compliance, management commitment, and sustained utilization by civil servants. Where these conditions were inadequate, the benefits of e-governance remained limited. Overall, e-governance was found to be beneficial but constrained by institutional and implementation challenges. Consequently, achieving its full potential in the Akwa Ibom State Civil Service requires strengthening the supporting administrative and technological environment. This conclusion provides the basis for the recommendations, which focus on improving payroll verification and monitoring and strengthening infrastructure and staff capacity for effective digital records management.

Discussion of Findings

The findings showed that e-governance reforms had contributed to administrative modernization in the Akwa Ibom State Civil Service, although their effects remained limited by implementation and institutional challenges. The electronic payroll system recorded a weak negative relationship with the reduction of ghost workers ($r = -0.36$), indicating some contribution to reducing payroll irregularities, but not a statistically significant effect. This suggests that electronic payroll systems alone cannot eliminate ghost workers without accurate personnel records, complete verification, effective internal controls, and continuous monitoring. This finding was consistent with Solomon and Alokpa (2023), Nwogo et al. (2021), Onwuudinjo (2023), and Danbala et al. (2024), who found that IPPIS improved

payroll administration and helped identify ghost workers but remained dependent on reliable databases, biometric verification, institutional compliance, and effective oversight.

Similarly, digitization of official records showed a weak positive relationship with information management ($r = 0.16$). This indicated that digitization had improved record storage, retrieval, preservation, and accessibility to some extent, although the effect was not statistically significant. The limited effect could be associated with inadequate training, infrastructure constraints, technical difficulties, and resistance to change. This finding was consistent with Davis (1989), Venkatesh and Davis (2000), and Venkatesh et al. (2003), who emphasized perceived usefulness, ease of use, facilitating conditions, and organizational support in determining technology adoption. Overall, the findings demonstrated that e-governance technologies were beneficial but institutionally constrained. Their effectiveness depended on reliable infrastructure, accurate data, staff competence, management support, effective monitoring, and sustained user acceptance. The study therefore concluded that technological investment must be accompanied by institutional reforms to achieve meaningful improvements in civil service administration and service delivery.

Recommendations

i. The Akwa Ibom State Government should strengthen and integrate its e-governance systems, particularly the electronic payroll and digital records platforms, with biometric verification, regularly updated personnel databases, effective monitoring, and periodic audits. This will improve the accuracy of personnel records, reduce ghost workers and payroll irregularities, and enhance the reliability of official information.

ii. The government should prioritize continuous investment in digital infrastructure and staff capacity development by providing reliable internet and electricity, adequate ICT equipment, and regular training for civil servants. This will improve employees' ability to use e-governance platforms effectively and enhance administrative coordination, reduce bureaucratic delays, and improve service delivery.

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