

**THE IMPACT OF E-GOVERNANCE ON SERVICE DELIVERY IN THE NIGERIAN  
PUBLIC SECTOR: A CASE STUDY OF EDO STATE CIVIL SERVICE**

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**DEPARTMENT OF PUBLIC ADMINISTRATION  
FACULTY OF SOCIAL SCIENCES  
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BENIN CITY**

**NOVEMBER, 2025**

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**BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF PUBLIC  
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ADMINISTRATION**

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## CERTIFICATION

This is to certify that this project was carried out by CHIMGUZOLUM BLESSED OKAFOR with Matriculation Number SSC2106402 of the Department of Public Administration in partial fulfillment of the requirements for the award of Bachelor Degree (B.Sc.) in Public Administration, University of Benin.

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**Date**

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**Date**

## **DEDICATION**

This work is dedicated to God almighty for his grace towards my life and my academic pursuit and also to my family for their care, prayers and financial support.

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## ABSTRACT

*This study examined the impact of e-governance on service delivery in the Nigerian public sector: A case study of Edo State Civil Service. The study adopted the survey design using questionnaire as instrument of data collection. The data was analyzed using simple percentage tables. The results revealed that ICT adoption has positively influenced public service delivery in Edo State by promoting greater transparency, enhancing accountability, and reducing opportunities for corruption. The findings also reveal a range of systemic and human-related challenges that hinder the full realization of e-governance benefits. These challenges corroborate previous studies and highlight that while technology provides a strong foundation for reform, its effectiveness depends largely on the institutional environment in which it is deployed. There must also be adequate investment in infrastructure, human capacity, cybersecurity, and change management to support a successful digital transformation. The study recommended that the government of Edo State should prioritize increased funding for e-governance initiatives. Adequate financial investment is necessary to procure modern ICT tools, upgrade existing digital infrastructure, and maintain systems for efficient public service delivery. Reliable internet connectivity is fundamental to the success of e-governance platforms. The government should collaborate with internet service providers to extend high-speed, stable internet access to all government ministries, departments, and agencies (MDAs), including those in rural areas. Training and re-training of civil servants should be institutionalized. Tailored workshops, certifications, and continuous professional development programs are essential to equip public officials with the technical skills required for operating and managing e-governance systems effectively.*

**Keywords:** E-Governance, Service Delivery, Public Sector, ICT Adoption, Service Delivery, Transparency and Accountability.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Globally, the evolution of Information and Communication Technology (ICT) has defined the dynamics of governance, public administration, and civic engagement. ICT refers to a diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information (Gherasim & Ionescu, 2019). It encompasses internet services, computer hardware and software, mobile technology, cloud computing, and other digital platforms, which collectively enable governments to provide services more efficiently and transparently. E-governance can also be described as the use of information and communication technologies (ICTs) to enhance the activities of government and improve the interaction between government and citizens has become a cornerstone of modern public administration (United Nations, 2022). E-governance encompasses various dimensions, including e-administration, e-service delivery, e-democracy, and e-participation, all aimed at promoting transparency, efficiency, accountability, and citizen engagement Organisation for Economic Co-operation and Development (OECD), 2019).

E-governance, a derivative of ICT application in the public sector, is defined as the use of digital tools and systems to facilitate the delivery of government services, enhance citizen participation, improve operational efficiency and promote accountability in public administration (Akpan-Obong et al., 2023; Atiquea et al., 2024). It includes digital platforms for tax collection, land registration, budgeting, procurement, education, and healthcare, among others. Across the globe from advanced economies to emerging nations governments are integrating e-governance

frameworks to enhance service delivery and reduce the bottlenecks associated with bureaucratic processes (Mutasa & Iyamu, 2023; Sarumi et al., 2019).

In Africa, the proliferation of e-governance initiatives has become increasingly evident, although outcomes differ depending on political will, institutional capacity, and infrastructural development (Akpan-Obong et al., 2023). Many developing countries view digital governance as a vehicle for fighting corruption, strengthening institutional transparency, and increasing citizen satisfaction (Ugada, 2023; Ayoade, 2017). Notably, the Chinese model of governance has also influenced e-governance paradigms in parts of Africa and Asia, emphasizing centralized digital control and streamlined administrative functions (Atiquea et al., 2024).

In Nigeria, e-governance has gained prominence as successive governments attempt to modernize public administration through various ICT interventions. Federal and state-level strategies have focused on improving transparency, reducing paperwork, enhancing fiscal management, and facilitating citizen access to public services (Uju, 2019; Ewuim, Igbokwe-Ibeto & Nkomah, 2016). Yet, the extent of implementation and success varies widely across the federation due to uneven infrastructural development, bureaucratic resistance, and gaps in digital literacy.

Edo State presents a compelling case within the Nigerian context. The state government has undertaken ambitious reforms to integrate ICT in governance, particularly through initiatives like the Edo Geographic Information System (Edo-GIS), aimed at improving land management and urban planning (Aigbe & Onuoha, 2025). Collaborations with private tech firms such as Zinox Group also demonstrate a commitment to transforming public service delivery via ICT (Ajose-Adeogun, 2021).

Nevertheless, the transformation is not without challenges. While ICT platforms for data collection, civil service documentation, and inter-agency communication have been introduced, the operational effectiveness of these systems remains a subject of debate. Issues related to user adoption, system reliability, and public satisfaction persist (Idahosa, 2025; Ainabor et al., 2015). Furthermore, digital infrastructure is not uniformly distributed across all departments and localities within the state, thereby affecting the inclusivity and equity of e-governance (Eimuhi & Aiwuyo, 2022; Krubu et al., 2022). Moreover, although ICT is expected to enhance fiscal accountability and transparent decision-making (Gherasim & Ionescu, 2019; Irete, Okpara & Ike, 2024), real-world outcomes show mixed results. While some civil servants and stakeholders have lauded the reforms, others point to ongoing bureaucratic inertia, limited access to ICT tools, and persistent gaps in training and system maintenance.

Ultimately, the success of e-governance is not solely determined by technological deployment but by the readiness of institutional frameworks, the adaptability of personnel, and the perceptions of the end-users the citizens. The digital economy, when properly aligned with e-governance, has the potential to catalyze socio-economic development, foster public trust, and promote democratic governance (Ndubuisi-Okolo et al., 2024; Uzoamaka et al., 2024). However, in the case of Edo State, there remains a need to critically examine how these ICT innovations are impacting the efficiency, accessibility, and transparency of government services, particularly within the state's civil service.

## **1.2 Statement of the Research Problem**

E-governance has emerged as a strategic solution for enhancing transparency, efficiency, and accountability in public administration. In Nigeria, this digital shift has been particularly

emphasized as a mechanism to combat entrenched bureaucratic inefficiencies and improve service delivery to citizens (Ewuim et al., 2016; Mutasa & Iyamu, 2023). However, while the theoretical benefits of e-governance are well documented, its actual implementation and effectiveness, especially at the state level, remain uneven and underexplored.

Edo State, recognized for pioneering reforms like the Edo Geographic Information System (Edo-GIS) and partnerships with ICT firms such as Zinox Group, represents a notable example of sub-national efforts to digitize governance. Yet, the practical outcomes of these efforts have raised critical questions. Despite the presence of digital platforms for land management, data processing, and internal documentation, many civil servants and citizens continue to experience delays in service delivery, lack of access to digital services, and limited responsiveness from public institutions (Aigbe & Onuoha, 2025; Idahosa, 2025).

Moreover, while some studies underscore the promise of ICT to improve public sector performance (Gherasim & Ionescu, 2019; Irete et al., 2024), the extent to which such outcomes have materialized in the Edo State Civil Service remains largely anecdotal. For instance, records digitization and document tracking systems have been implemented in select ministries, yet bottlenecks in administrative processes, poor inter-agency collaboration, and a continued reliance on manual procedures persist. This discrepancy between expected and actual performance raises concerns about the depth of e-governance integration.

A critical gap also exists in understanding the role of public perception in evaluating the success of e-governance initiatives. Citizen trust, satisfaction, and usability experiences are essential indicators of governance quality, yet these variables have received limited empirical attention in the context of Edo State. Some residents express optimism about ICT reforms, while

others report frustrations with system downtime, digital exclusion, and the lack of user-friendly platforms (Ugada, 2023; Ndubuisi-Okolo et al., 2024).

Compounding these challenges are systemic issues such as inadequate ICT infrastructure, poor digital literacy among civil servants, and resistance to technological change factors that continue to impede the full operationalization of e-governance (Ainabor, Edeh & Onwe, 2015; Ayoade, 2017). Many government offices still operate without consistent internet access or power supply, and training programs for staff remains sporadic and insufficiently tailored to evolving ICT tools (Eimuhi & Aiwuyo, 2022; Krubu et al., 2022).

Therefore, this study seeks to address a critical research gap by examining the real-world implications of e-governance implementation in the Edo State Civil Service. It aims to assess whether the intended goals of improved efficiency, enhanced accountability, and citizen-centric service delivery are being met, and to explore the institutional, technical, and socio-cultural barriers that may be limiting their realization. Without such an inquiry, policy efforts may continue to emphasize form over function, leaving digital governance reforms underutilized and citizen expectations unmet.

### **1.3 Objectives of the Study**

The main objective of this study is to examine the impact of e-governance on service delivery in the Nigerian Public Sector: A case study of Edo State Civil. The specific objectives are:

1. To assess the impact of e-governance on the efficiency of public service delivery in Edo State Civil Service.

2. To analyze public perception of e-governance initiatives and improvements in service delivery in Edo State.
3. To examine the role of ICT tools in enhancing transparency and accountability in government operations in Edo State.
4. To identify the challenges affecting the effective implementation of e-governance in the Edo State public sector.

#### **1.4 Research Questions**

This study is guided by the following research questions, which aim to explore the impact, perception, and challenges of e-governance in enhancing public service delivery within the Edo State Civil Service:

1. To what extent has e-governance improved the efficiency of service delivery in the Edo State Civil Service?
2. How does public perception of e-governance initiatives help to improve service delivery in Edo State?
3. How has the adoption of ICT tools influenced transparency and accountability in service delivery in Edo State?
4. What are the major challenges hindering the effective implementation of e-governance in Edo State's public sector?

#### **1.5 Significance of the Study**

This study is significant for several key stakeholders, as it provides insights into the role of e-governance in improving public service delivery in Edo State.

For Students, the research serves as a valuable academic resource for understanding of the application of ICT in governance and public administration. It will deepen students' knowledge of contemporary public sector reforms and offers a practical case study for classroom discussions and future research. For Potential Researchers, the study contributes to the growing body of literature on e-governance in Nigeria by offering localized empirical evidence from Edo State. It identifies current gaps in implementation, public perception, and challenges, which can inspire further investigation and comparative studies across states or regions. For Policymakers, the findings will offer evidence-based recommendations that can inform decisions on digital transformation strategies, ICT investments, and policy reforms aimed at enhancing transparency, efficiency, and citizen engagement in public service delivery. For the Government of Edo State, this study provides a performance appraisal of existing e-governance initiatives such as Edo-GIS and cloud-based records systems. It highlights areas of success, bottlenecks, and opportunities for improvement, thereby supporting more targeted interventions and sustainable public sector innovation. Overall, the research underscores the importance of inclusive, efficient, and accountable e-governance systems, positioning Edo State as a model for digital governance within Nigeria.

## **1.6 Scope of the Study**

The scope of this study is limited to the implementation and effectiveness of e-governance in the Edo State Civil Service. It focuses on specific initiatives such as the Edo Geographic Information System (Edo-GIS), digitized records management systems, and partnerships with ICT service providers like Zinox Group. The study examines key dimensions of e-governance including e-administration, e-service delivery, and public accountability within

selected ministries, departments, and agencies (MDAs) in Edo State. The research does not cover private sector ICT innovations or national-level e-governance efforts. Additionally, while it considers citizen perceptions and satisfaction, the focus remains primarily on the administrative and technical dimensions of service delivery within the state civil service. The timeframe for analysis is generally within the past decade (2015–2025), capturing the period of major ICT-related reforms in the state.

### **1.7 Definition of Terms**

**E-Governance:** The application of Information and Communication Technologies (ICTs) to improve the activities of public sector organizations and enhance interaction between government and citizens.

**ICT (Information and Communication Technology):** A broad term encompassing digital tools, platforms, and systems used for processing, storing, and exchanging information in both public and private sectors.

**E-Service Delivery:** The provision of government services to citizens and businesses through digital platforms, aiming for more efficient, accessible, and transparent interactions.

**E-Administration:** The internal use of ICT within government institutions to streamline operations, manages data, and improves decision-making processes.

**Digital Literacy:** The ability of individuals, particularly public officials, to effectively use ICT tools for communication, information processing, and service delivery.

**Edo-GIS:** The Edo Geographic Information System, a digital platform implemented by the Edo State Government to improve land administration, planning, and spatial data management.

**Transparency:** Openness in government processes and decision-making, facilitated by access to information and reduced opportunities for corruption.

**Accountability:** The obligation of public officials to explain and justify their decisions and actions to stakeholders, often enhanced through digital monitoring systems.

## CHAPTER TWO

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Conceptual Clarification

E-governance and public service delivery are intrinsically linked through the application of digital tools and processes that modernize how services are provided to citizens. In Edo State, the integration of e-governance mechanisms has revolutionized traditional administrative procedures by replacing manual systems with efficient, tech-enabled platforms (Ajose-Adeogun, 2021). These platforms simplify complex governmental functions, reduce physical paperwork, and provide a more convenient interface for citizens to access essential services. For example, the introduction of the Edo Geographic Information System (Edo-GIS) has transformed the management of land records. Where ones land documentation was susceptible to tampering, delays, and fraud, the digitization of these records has ensured greater accuracy, accessibility, and accountability. As highlighted by Aigbe and Onuoha (2025), this transformation has not only minimized human error and manipulation but has also built greater public trust in government institutions, especially in sectors prone to corruption.

One of the most vital benefits of e-governance in Edo State is its capacity to improve efficiency across governmental departments. Digital systems such as cloud computing have enabled quicker processing times, enhanced data sharing between departments, and more effective communication with citizens. Idahosa (2025) emphasizes that such innovations have facilitated real-time interactions between service providers and users, significantly reducing delays that once plagued public administration. In the education sector, for instance, digital transformation through the State Universal Basic Education Board (SUBEB) has led to more reliable records of

school operations, teacher attendance, and student performance. Mustapha, Okonmah & Jesuhovie (2022) documented how these digital systems have improved accountability and performance monitoring, helping to ensure that educational policies translate into tangible outcomes. This efficiency in service coordination reflects a deeper institutional shift where technology is not just an enabler but a driving force for reform.

E-governance has also been instrumental in promoting citizen participation and democratic inclusion. Traditionally, civic engagement in many Nigerian states, including Edo, has been hampered by opaque government procedures, limited access to information, and physical barriers to participation. However, with the advent of online portals, government apps, and interactive social media channels, citizens now find it easier to engage with public authorities. Chohan and Hu (2022) argue that such digital inclusion empowers citizens by offering them platforms to contribute to policymaking, lodge grievances, and track service delivery. In Edo State, this has translated into more active community involvement in governance, increased feedback on public projects, and better responsiveness from public officials. Although there remain issues of digital literacy and unequal internet access in rural areas, the overall trend suggests a growing alignment with global standards of participatory governance (Ajose-Adeogun, 2021; Krubu et al, 2022).

Beyond participation, e-governance in Edo State also serves as a critical driver of economic development and anti-corruption reform. The automation of services such as tax collection and property registration has not only streamlined operations but also made financial tracking more transparent. With tools like the Edo-GIS, the government can now monitor and collect revenues more effectively, leading to a noticeable increase in internally generated revenue (IGR), which is vital for infrastructure and social development (Aigbe & Onuoha, 2025). This digital

transformation reduces opportunities for corruption by eliminating the discretionary power of officials over transactions, thereby closing loopholes that allow for illicit practices. Arayankalam et al., (2021) observe that mature e-governance frameworks significantly bolster anti-corruption efforts by ensuring traceability and auditability of every digital transaction within the public sector

Krubu et al., (2022) asserted that the implementation of e-governance in Edo State illustrates a model of how digital tools can transform the delivery of public services and the quality of governance. It brings a multi-faceted impact enhancing transparency, promoting efficiency, boosting citizen engagement, and reinforcing institutional integrity. The case of Edo State highlights that when properly implemented, e-governance becomes not just a technological upgrade but a comprehensive governance reform strategy with far-reaching benefits for society. E-governance has ushered in a new era of administrative modernization in Edo State (Irete et al., 2024). From enhancing transparency and efficiency to boosting revenue and curbing corruption, digital governance has proven to be a transformative force. Although challenges such as limited infrastructure and digital inequality remain, the progress so far highlights e-governance as a viable path toward sustainable development and democratic empowerment in the state.

### **2.1.1 Concept of E-Governance**

E-governance, short for electronic governance, refers to the application of information and communication technologies (ICTs) in government processes to improve the interaction between government and its stakeholders citizens, businesses, and internal agencies. It involves the digital transformation of public administration with the goal of making governance more efficient, transparent, accountable, and participatory (Grigalashvili, 2022). According to Lubis et al.

(2024), e-governance plays a critical role in advancing the Sustainable Development Goals (SDGs) by streamlining decision-making, enhancing institutional performance, and fostering inclusive services. Similarly, Sanmukhiya (2019) highlighted how Mauritius leveraged e-governance to enhance efficiency and citizen engagement, noting the multidimensional nature of its implementation.

Mutasa and Iyamu (2023) assert that successful implementation in emerging economies is influenced by several factors, including technological infrastructure, political will, and public readiness. Atiquea et al. (2024) further emphasize the relevance of adapting foreign models, such as China's governance approach, to local contexts to optimize outcomes.

E-governance can be categorized into four interaction models:

G2C (Government to Citizens): e.g., online service delivery.

G2B (Government to Business): e.g., e-procurement.

G2E (Government to Employees): e.g., internal communications.

G2G (Government to Government): e.g., inter-departmental data sharing (Aigbe & Onuoha, 2025; Asomba et al., 2023). Furthermore, Fan and Ma (2024) discuss e-governance as a tool for anti-corruption by reducing reliance on personal connections, while Chohan and Hu (2022) link it to digital inclusion and competency-building.

### **2.1.2 Public Service Delivery**

Public service delivery refers to the mechanisms, processes, and institutions through which governments provide essential services such as healthcare, education, sanitation, infrastructure, and justice to the public. It serves as a critical function of the state and is often a key indicator of governmental legitimacy and capacity. In the digital age, service delivery is increasingly being

redefined through technological means. According to Idahosa (2025) and Aigbe & Onuoha (2025), cloud computing and GIS technologies have significantly enhanced the responsiveness and efficiency of public services in Edo State, Nigeria. Similarly, Mustapha et al. (2022) document the role of ICT-training initiatives in boosting workforce productivity and public service efficiency.

Asomba et al. (2023) note that the integration of ICT into the Nigerian public sector has not only enhanced service accessibility but also improved governance transparency and accountability. However, challenges such as poor ICT infrastructure, low digital literacy, and cyber insecurity still impede progress (Obodo & Anigbata, 2018). Globally, studies such as Pham et al. (2023) confirm that e-government service quality significantly influences user satisfaction and loyalty. Likewise, Mao & Zhu (2025) show that integrated e-government systems in China have contributed to more equitable and higher-quality public services.

According to the United Nations (2016), e-governance is a powerful tool for achieving global sustainability goals due to its ability to facilitate inclusive and participatory service models. In essence, e-governance serves as a transformative mechanism for enhancing public service delivery. By digitizing government functions, it creates opportunities for efficient, equitable, and transparent services. While countries like Nigeria have made significant strides, the full potential of e-governance remains tied to addressing systemic challenges and ensuring inclusive digital participation.

### **2.1.3 E-Governance in Edo State**

Edo State, located in southern Nigeria, has made commendable efforts toward the implementation of e-governance initiatives aimed at enhancing transparency, accountability, and

service delivery across various sectors. The state has adopted a number of ICT-driven policies and platforms to improve interaction between the government and its citizens, in line with global best practices in digital governance. One of the most significant strides in e-governance within Edo State is the establishment and operationalization of the Edo Geographic Information System (Edo-GIS). As noted by Aigbe and Onuoha (2025), this initiative has transformed land administration in the state by digitizing land records and enabling online access to land-related services. The system has reduced bureaucratic bottlenecks, minimized corruption in land transactions, and enhanced revenue generation.

Idahosa (2025) emphasizes the adoption of cloud computing technologies to strengthen e-government services. This has allowed for efficient data storage, security, and inter-agency communication within government departments in the state, further improving responsiveness to public needs. To complement these technological investments, the Edo State Universal Basic Education Board (SUBEB) implemented an ICT-training initiative between 2016 and 2019. According to Mustapha, Okonmah, and Jesuhovie (2022), this program led to significant improvements in staff productivity and operational efficiency. Teachers and administrative staff received digital literacy training, enabling them to manage data, report activities, and interact with education management systems more effectively.

The success of e-governance in Edo State is also tied to its institutional reforms and political leadership. Under successive administrations, the state has shown a commitment to building digital infrastructure and fostering a tech-driven public service culture. According to Aimuan and Aigbe (2019), while challenges persist, including funding gaps and internet connectivity issues,

there has been a strong political will to overcome these barriers. Despite these advancements, certain structural challenges continue to hamper the full realization of e-governance benefits:

- Low digital literacy among rural populations.
- Inadequate ICT infrastructure in remote areas.
- Cybersecurity risks and data protection concerns.
- Resistance to change within parts of the civil service.

As Obodo and Anigbata (2018) point out, the implementation of e-governance in Nigeria, including Edo State, often struggles with technical, administrative, and human resource limitations. Addressing these issues is critical to achieving a truly inclusive and efficient governance system.

#### **2.1.4 Impact of E-Governance in Edo State**

E-governance has become a cornerstone of modern governance in Edo State, Nigeria, enabling the delivery of public services through digital platforms and reshaping government-citizen interactions. The digital transformation has yielded numerous benefits across transparency, efficiency, workforce performance, citizen participation, revenue generation, and corruption reduction. E-governance initiatives in Edo State have contributed to better service delivery in areas such as land administration, education, health, and taxation. Citizens are increasingly able to access services online, make payments digitally, and interact with government departments more conveniently. These improvements align with global evidence suggesting that digital governance enhances the quality, speed, and equity of public services (Mao & Zhu, 2025; Pham et al., 2023). Edo State's journey toward effective e-governance is an evolving success story, marked by proactive policy implementation, technological innovation, and a growing emphasis

on digital literacy. While challenges remain, the state's investments in ICT infrastructure and administrative reforms indicate a strong commitment to leveraging digital tools for sustainable governance and improved public service delivery.

**Improved Transparency and Accountability:** E-governance has significantly improved transparency and accountability in Edo State. The deployment of the Edo Geographic Information System (Edo-GIS) is a prime example. By digitizing land registration and management, Edo-GIS have removed the opacity and inefficiencies historically associated with land acquisition and titling. Before the implementation of this platform, land transactions were largely manual, which made the system prone to manipulation, delays, and fraud. With Edo-GIS, land ownership data is now digitized and publicly accessible, empowering citizens to verify land documents independently and reducing reliance on intermediaries. This has resulted in fewer cases of land disputes and a decline in corrupt practices related to land allocation (Aigbe & Onuoha, 2025). By promoting openness, the system strengthens institutional credibility and fosters citizen trust.

**Enhanced Efficiency in Service Delivery:** The application of cloud computing technologies and integrated digital platforms has enhanced the efficiency of public service delivery in Edo State. Government departments are now better equipped to handle large volumes of data, streamline their operations, and automate workflows. For instance, digital platforms allow for real-time communication between ministries, departments, and agencies (MDAs), leading to more coordinated responses to public demands. Service requests that previously took weeks due to paperwork and interdepartmental delays can now be completed in days or even hours. This digital synergy has helped eliminate bureaucratic red tape and redundancy. As supported by Mao

& Zhu (2025), the integration of e-governance tools ensures that services are delivered not only quickly but also equitably, minimizing favoritism or neglect of vulnerable populations.

**Boost in Public Workforce Productivity:** The government of Edo State has prioritized capacity-building for civil servants through ICT training, especially under the Edo State Universal Basic Education Board (SUBEB). These training programs have empowered public sector employees with digital skills to manage administrative tasks efficiently. According to Mustapha, Okonmah & Jesuhovie (2022), the introduction of digital record systems and electronic monitoring tools has led to improved documentation, more accurate performance evaluation, and streamlined decision-making within educational institutions. These digital competencies have spilled over into other sectors, resulting in a more responsive and accountable public workforce. As civil servants become more proficient with e-governance tools, productivity rises, and errors associated with manual record-keeping are significantly reduced, translating into better service delivery outcomes.

**Citizen Engagement and Participation:** E-governance has provided new channels for citizen engagement and participatory governance in Edo State. Through platforms such as government portals, mobile apps, and social media, citizens can now lodge complaints, access information, and contribute to policy discussions more easily. This digital interaction bridges the gap between government and the governed, fostering a sense of inclusion. It also allows for feedback loops where government officials can assess public sentiment and refine services based on real-time input. However, digital divide concerns such as limited internet access in rural areas and low digital literacy among some populations still affect the depth of engagement. Nevertheless, the

trajectory aligns with Chohan & Hu's (2022) observation that e-governance mechanisms, when inclusive, significantly enhance democratic governance and transparency.

**Revenue Generation and Economic Development:** Digitization of public services, especially in the areas of land administration, taxation, and permits, has improved the capacity of the Edo State Government to generate internal revenue. Edo-GIS, by making property registration more efficient and transparent, has increased compliance with property tax obligations. These digital tools also help the government maintain accurate databases of taxable entities and reduce revenue leakages often caused by manual records and cash-based systems. Increased internally generated revenue (IGR) supports investments in infrastructure, education, health, and other social services, fostering broad-based economic development (Aigbe & Onuoha, 2025). Furthermore, digital financial transactions enable better tracking and auditing, ensuring that public funds are utilized for development projects as intended.

**Reduction in Corruption and Administrative Bottlenecks:** By automating key service delivery processes, e-governance has significantly reduced opportunities for bribery and corrupt practices in Edo State. Traditional manual systems provided avenues for manipulation, favoritism, and underhand dealings. With e-platforms, each transaction can be traced, and officials are held accountable through digital logs and audit trails. This reduction in human discretion has translated into fewer bottlenecks in obtaining services like land permits, business licenses, and tax clearance certificates. As Arayankalam et al., (2021) suggest, the maturity of e-governance systems is directly correlated with improvements in institutional integrity and anti-corruption outcomes. Moreover, automated systems encourage compliance with due process,

making it difficult for unscrupulous officials to bypass rules for personal gain. This has elevated the standard of governance in Edo State and improved its public image.

### **2.1.5 E-governance improved the Efficiency of Service Delivery**

The introduction of e-governance into the Edo State Civil Service has catalyzed a transformation in administrative processes, aligning with a global shift toward digital government practices. E-governance has enabled the automation of repetitive tasks, reducing manual paperwork and promoting faster execution of public services. For instance, EDOGIS has become a model in digitizing land management, significantly cutting down delays and red tape in title processing and documentation (Aigbe & Onuoha, 2025). This has not only improved the efficiency of services but also contributed to reducing corrupt practices associated with land administration.

Consequently, ICT integration has enhanced the management of human resources through digital payroll and staff tracking systems. This transition from paper-based files to cloud-based systems ensures accuracy in staff data, real-time access to personnel information, and automatic salary processing (Idahosa, 2025). Such digitization reduces opportunities for ghost workers and salary fraud, contributing to a more accountable and effective public service. These gains have improved staff motivation and service delivery output, creating a more productive civil service environment.

Edo State's e-governance reforms mirror global trends that underscore the efficiency of ICT in public administration. According to the United Nations (2022), countries that have implemented electronic government systems demonstrate greater responsiveness and efficiency in service delivery. The OECD (2019) also highlights how ICT tools enhance inter-agency collaboration, reduce duplication of efforts, and streamline workflows. In Edo State, interdepartmental

communication has improved due to shared digital platforms, making it easier to coordinate public services.

Despite the gains, sustainability remains crucial. To maintain and scale these benefits, continuous updates to digital platforms, training for civil servants, and infrastructure development must be pursued. Effective change management strategies are necessary to guide departments in transitioning from traditional workflows to technology-enabled systems. Long-term success in service delivery efficiency hinges on the government's ability to institutionalize e-governance across all tiers of public administration.

### **2.1.6 Public Perception of E-governance Initiatives and Service Delivery**

The perception of e-governance by the public significantly influences the success of such initiatives. In Edo State, the growing appreciation for digitalized services ranging from tax payments to civil documentation has led to increased citizen participation in governance processes (Ajose-Adeogun, 2021). As residents experience the ease and transparency of e-governance platforms, their confidence in public institutions strengthens, thus fostering an environment where government-citizen engagement is enhanced.

Public satisfaction is particularly notable in urban areas where digital literacy and access to ICT tools are more prevalent. Here, citizens utilize platforms for feedback, complaints, and tracking service delivery outcomes. This dynamic interaction contributes to improved accountability and responsiveness by public institutions (Ewuim et al., 2016). Additionally, digitized tax collection systems have improved compliance, as citizens find online payment more convenient and trustworthy than manual methods prone to delays or corruption.

However, the perception of e-governance in rural areas presents a contrasting narrative. Many rural dwellers struggle with inadequate access to ICT facilities, limited electricity supply, and insufficient digital literacy. As a result, the benefits of e-governance are not equally experienced, leading to gaps in perception and adoption. Eimuhi and Aiwuyo (2022) argue that unless deliberate steps are taken to bridge the urban-rural divide in ICT access, public perception of e-governance will remain uneven.

Improving public perception requires targeted awareness campaigns, digital literacy programs, and inclusive ICT infrastructure development. Engaging community stakeholders, civil society groups, and traditional institutions in advocacy for digital services can help bridge these gaps. When citizens feel included and empowered through digital tools, they are more likely to support, utilize, and advocate for the expansion of e-governance in their communities (Mustapha et al., 2022).

### **2.1.7 Adoption of ICT Tools for Transparency and Accountability in Service Delivery**

E-governance in Edo State has fostered a culture of transparency and accountability through the strategic deployment of ICT tools. Real-time data monitoring and digital recordkeeping allow for systematic oversight of administrative processes. These mechanisms reduce human discretion and manipulation in public dealings, thereby limiting opportunities for corruption (Irete et al., 2024). For example, electronic procurement systems and online portals for civil service records enhance traceability and institutional memory. The existence of audit trails in digital platforms ensures that every transaction or modification in records is documented and verifiable. This feature discourages unethical behavior among public officials and strengthens internal controls. Gherasim and Ionescu (2019) affirm that digital audit systems improve transparency by exposing

discrepancies and holding actors accountable. In Edo State, similar systems have empowered departmental heads to conduct internal reviews more efficiently.

Citizen-facing platforms, such as online complaint and feedback channels, also contribute to enhanced accountability. These platforms allow the public to report grievances, track responses, and evaluate government performance in real-time. According to Akpan-Obong et al. (2023), such participatory mechanisms are essential in holding governments accountable and promoting democratic governance. Mutasa and Iyamu (2023) add that citizen engagement in digital governance increases pressure on public institutions to deliver on their mandates effectively.

Despite these advantages, transparency and accountability can only be sustained if ICT systems are secure, user-friendly, and backed by robust legal frameworks. Cybersecurity threats and data breaches pose serious risks that could undermine the public's trust in digital systems. Hence, consistent investment in cybersecurity infrastructure, data protection laws, and digital rights awareness is essential for consolidating the gains of ICT in promoting good governance.

### **2.1.8 Challenges Hindering the Effective Implementation of E-governance**

Although e-governance has recorded notable successes in Edo State, several challenges continue to undermine its full implementation. One of the most pressing issues is infrastructural deficiency. Poor internet connectivity, especially in rural communities, limits the reach and utility of digital services. Moreover, unstable electricity supply and inadequate ICT hardware in government offices restrict the continuous use of e-governance platforms (Ndubuisi-Okolo et al., 2024). These infrastructural gaps create a digital divide that excludes many citizens and public workers from benefiting from ICT initiatives. Addressing these challenges requires a multifaceted approach. Government investment in ICT infrastructure must be complemented

with staff training, stakeholder sensitization, and inclusive digital policies. Partnerships with private sector ICT providers, NGOs, and international donors can support the expansion of broadband access and the development of user-centric platforms. Ultimately, the success of e-governance in Edo State depends on sustained political will, institutional collaboration, and a commitment to digital equity.

**Inadequate Infrastructure:** A foundational challenge facing e-governance in Edo State is the persistent inadequacy of digital and physical infrastructure. The smooth functioning of e-governance systems relies heavily on the availability of stable internet connectivity, reliable power supply, and access to modern computing devices. However, many parts of Edo State, especially rural and semi-urban communities, suffer from weak broadband penetration, erratic electricity, and insufficient ICT facilities. These limitations create serious bottlenecks for the adoption and sustained use of e-governance platforms, as users often cannot access or utilize digital services consistently (Ndubuisi-Okolo et al., 2024).

Consequently, civil service offices in less developed regions are often not equipped with adequate computers, software, or technical support necessary for digital transformation. The lack of infrastructure not only delays administrative processes but also deters innovation and discourages public trust in technology-driven governance (Ayoade, 2017). If e-governance is to be inclusive and impactful, there must be deliberate and targeted investments in ICT infrastructure, especially in underserved areas. These efforts would help bridge the digital divide and ensure that all citizens and public workers can access and benefit from digital government services.

**Human Capital Development:** Human capital development also poses a significant barrier. Many civil servants lack the digital literacy and technical know-how required to operate ICT systems efficiently. Resistance to change, driven by fear of job displacement or lack of training, further hampers ICT adoption (Ayoade, 2017). Without targeted capacity-building initiatives, the transition from manual to digital operations will remain sluggish and ineffective, especially in departments with older staff or limited exposure to technology.

**Regulatory Framework:** Another critical challenge is the lack of a comprehensive regulatory framework governing data protection, cybersecurity, and digital inclusion. As Ugada (2023) highlights, weak legislation can expose e-governance systems to cyber threats and undermine public confidence. Sarumi et al. (2019) argue that policy inconsistencies and inadequate implementation strategies are major hurdles in achieving integrated digital governance. Without appropriate laws and enforcement mechanisms, e-governance platforms may become vulnerable to manipulation or inefficiency.

**Low Digital Literacy among Civil Servants:** A critical human capacity challenge to e-governance in Edo State is the low level of digital literacy among civil servants. Many public sector employees, especially older staff members, lack the necessary training to effectively navigate and operate ICT tools introduced in the workplace. This digital illiteracy leads to dependence on outdated, manual methods of service delivery, thus reducing the efficiency and benefits of automation and online platforms (Ayoade, 2017). Employees who are unfamiliar with ICT often find new systems intimidating, resulting in hesitancy or outright resistance to their use. Moreover, without targeted and continuous training programs, even well-designed digital systems may be underutilized or misused, defeating the purpose of innovation in governance.

The gap in digital skills also leads to an uneven adoption rate among government departments, weakening overall policy coherence and institutional performance. Therefore, developing a robust digital training and capacity-building framework for civil servants is essential. Such initiatives would not only enhance competency but also increase acceptance of new technologies and foster a culture of innovation within the public sector.

**Cybersecurity Threats and Data Vulnerability:** With the digitization of government records and services, cybersecurity has become a major concern for the Edo State public sector. As government operations increasingly rely on online platforms and cloud storage, the risk of data breaches, hacking, and malicious attacks grow significantly. Unfortunately, many of the state's digital systems lack advanced protective measures such as firewalls, secure authentication systems, and regular security audits (Ugada, 2023). This creates an environment in which sensitive personal and administrative data is vulnerable to unauthorized access and misuse.

The lack of a comprehensive data protection and cybersecurity framework can have dire consequences, including public distrust, legal liabilities, and disruption of essential services. In the absence of strong legal backing and investment in digital security infrastructure, the long-term viability of e-governance becomes questionable. It is therefore imperative that Edo State strengthens its cybersecurity protocols by enacting legislation, establishing secure data centers, and training personnel in cyber risk management. These measures are crucial not only for protecting information but also for building public confidence in e-governance systems.

**Policy Inconsistencies and Weak Legal Frameworks:** The effectiveness of e-governance initiatives is closely linked to the strength and consistency of the supporting legal and policy environment. In Edo State, one of the major impediments is the absence of a cohesive and well-

enforced legal framework governing digital governance. Policies guiding e-governance are often fragmented, poorly implemented, or lack alignment between state and federal structures (Sarumi et al., 2019). This results in inconsistent practices across government agencies, leading to duplicated efforts, poor data integration, and a lack of accountability.

Furthermore, without clear regulations and guidelines, many departments are left uncertain about their roles, responsibilities, and procedures in implementing digital initiatives. This ambiguity hampers collaboration and slows down the decision-making process. To remedy this, there is a pressing need for Edo State to develop a unified e-governance strategy backed by legislation that outlines standards, accountability mechanisms, data privacy rules, and enforcement provisions. A strong legal foundation will ensure the sustainability and scalability of e-governance across the entire public sector.

**Urban-Rural Digital Divide:** Another substantial barrier to the success of e-governance in Edo State is the digital divide between urban and rural populations. While citizens in Benin City and other urban centers may enjoy access to fast internet, smartphones, and reliable electricity, their rural counterparts often experience poor connectivity, limited digital skills, and inadequate ICT infrastructure (Eimuhi & Aiwuyo, 2022). This disparity leads to unequal participation in digital services and undermines efforts to create an inclusive governance system that reaches all citizens. The urban-rural gap also reflects in service delivery, as government outreach through online platforms may not effectively reach those in rural areas. For example, initiatives like online tax registration or digital land administration services may be unusable to residents without internet access or ICT knowledge. To bridge this gap, the state must adopt inclusive strategies such as mobile-based platforms, ICT centers in rural communities, and policies that prioritize equitable

access to digital services. This will ensure that no population group is left behind in the e-governance movement.

**Resistance to Change and Organizational Culture:** Institutional culture is often underestimated as a barrier to reform, but in Edo State's civil service, resistance to change significantly affects e-governance implementation. Many civil servants view digital transformation as a threat to their job security or as an added burden without immediate benefits. This mindset is especially prevalent in hierarchical bureaucracies where employees are accustomed to traditional, paper-based procedures (Ayoade, 2017). Such resistance leads to delays in adopting new systems and inconsistent usage across departments.

Moreover, without a proactive change management strategy, even the best-designed e-governance initiatives may face pushback from within. Organizational transformation requires not only technological upgrades but also a shift in attitudes, behaviors, and leadership styles. Building a digital-first culture entails providing incentives for innovation, promoting ICT champions within ministries, and engaging employees at all levels during the planning and implementation process. Addressing cultural resistance is essential for embedding digital solutions into the daily operations of the civil service.

E-governance holds great potential for transforming public administration in Edo State, its successful implementation is hindered by complex and interrelated challenges. From infrastructural gaps and digital illiteracy to cybersecurity concerns and policy weaknesses, these barriers must be addressed holistically. Strategic investments, legal reforms, capacity building, and cultural transformation are essential for creating a resilient and inclusive digital governance

ecosystem. Only by overcoming these hurdles can Edo State fully harness the benefits of e-governance to improve service delivery, transparency, and public trust.

## **2.2 Theoretical Framework**

In understanding the impact of e-governance on service delivery in the Nigerian public sector, particularly within the Edo State Civil Service, requires the application of a relevant theory. This theory provides the conceptual lens through which the adoption, integration, and outcomes of digital governance can be interpreted.

### **Technology Acceptance Model (TAM),**

The Technology Acceptance Model (TAM), developed by Davis (1989), provides a theoretical lens for understanding how individuals adopt and use technology. It posits that two central factors perceived usefulness (PU) and perceived ease of use (PEOU), shape the intention to use technology, which in turn predicts actual adoption. This framework is particularly relevant in the context of public sector reforms where digital technologies, such as e-governance platforms, are introduced to improve efficiency, transparency, and service delivery. For the Edo State Civil Service, TAM helps to explain why some employees embrace digital systems for service requests, payroll, and administrative processes, while others resist adoption despite government investment in ICT infrastructure.

The perceived usefulness construct emphasizes whether civil servants believe that using e-governance systems will enhance their job performance. For instance, studies such as Aimuan and Aigbe (2019) highlight that ICT adoption in Nigerian public administration has the potential to revitalize service delivery through speed, accuracy, and reduced bureaucratic delays. When civil servants in Edo State view digital portals as tools that streamline workflow, minimize

paperwork, and reduce delays in accessing records, their willingness to use such platforms increases. This aligns with Abbas et al. (2024), who noted that digital governance directly improves public service outcomes in health sectors across Asia, showing parallels with Nigerian experiences.

Equally important is the perceived ease of use, which determines whether the technology is seen as user-friendly and free from technical complexity. In many cases, as Obodo and Anigbata (2018) observed, challenges in implementing e-governance in Nigeria stem not only from infrastructure gaps but also from insufficient user training, making technology intimidating to public servants. Within Edo State, if digital portals are intuitive and require minimal technical skills, civil servants are more likely to accept and integrate them into their daily routines. Conversely, platforms that are overly complex may discourage adoption, undermining efficiency gains.

The significance of TAM becomes clearer when examining institutional challenges in Nigeria's digital transformation. Akpan-Obong, Edewor, and Aghalino (2023) emphasized that cultural and normative barriers often affect technology acceptance in Nigerian bureaucracies. Civil servants accustomed to manual, paper-based systems may perceive digital alternatives as disruptions rather than innovations. This highlights that beyond technical design, social and cultural contexts strongly influence how usefulness and ease of use are interpreted. TAM, therefore, offers a flexible lens for analyzing adoption not merely as a technological issue but as a socio-technical process.

Moreover, TAM aligns with findings from international experiences. Mao and Zhu (2025) demonstrated that integration of e-government systems improved service quality and equity in

Chinese municipalities, largely because officials perceived the systems as both useful and accessible. Similarly, Pham et al. (2023) found that perceived value and satisfaction significantly determined loyalty to e-government services in emerging economies. These findings suggest that Edo State's civil service can draw lessons from global practices by ensuring that platforms are designed and deployed in ways that maximize perceived benefits and usability.

The relevance of TAM is also visible in anti-corruption and transparency efforts. Arayankalam, Khan, and Krishnan (2021) revealed that e-government maturity correlates with reductions in corruption, partly because digital systems reduce human discretion and increase accountability. However, for such benefits to materialize in Edo State, civil servants must actively adopt the systems. If technology is perceived as useful in curbing corrupt practices and simplifying workflows, acceptance will increase. Thus, TAM underscores the psychological and perceptual foundations upon which transparency reforms depend.

Another dimension is the role of training and digital literacy. Mustapha, Okonmah, and Jesuhovie (2022) highlighted that ICT training initiatives significantly improve workforce productivity in Edo State's educational sector. Applied to civil service, this finding suggests that perceived ease of use can be enhanced through structured capacity-building programs, thereby lowering resistance and fostering adoption. In TAM terms, training acts as a mediator, strengthening both ease of use and usefulness perceptions. Without adequate training, however, civil servants may perceive technology as burdensome, leading to underutilization.

The model also interacts with techno-stress and workload concerns. Camarena and Fusi (2022) demonstrated that increased reliance on digital tools can sometimes overwhelm public managers, creating stress that hinders acceptance. For Edo State civil servants, overloading staff

with multiple digital platforms without streamlining processes could negatively affect perceived ease of use. This shows that TAM does not operate in isolation; external factors such as stress, workload, and organizational support also mediate technology perceptions and adoption.

Importantly, TAM reinforces the citizen-centered logic of e-governance. Jiang and Fan (2024) argued that conscious citizen engagement in digital platforms enhances public service delivery when users perceive these platforms as efficient and reliable. For Edo State, civil servants' adoption of digital tools directly shapes citizens' experiences if staff perceive the platforms as useful and easy, they will provide faster, more efficient services, leading to higher citizen satisfaction. Thus, TAM provides a critical bridge between internal adoption by civil servants and external outcomes for the public.

The Technology Acceptance Model (TAM) remains a powerful framework for analyzing the adoption of e-governance in the Nigerian public sector. By focusing on perceived usefulness and ease of use, it highlights the psychological and behavioral mechanisms that determine whether civil servants in Edo State will embrace digital platforms. The significance of TAM lies in its ability to connect technology design, training, institutional culture, and service delivery outcomes. Integrating TAM into this study not only enriches the theoretical foundation but also provides actionable insights for policymakers: simplifying platforms, improving training, and reinforcing the perceived benefits of e-governance are essential steps to achieve effective and sustainable service delivery in Edo State Civil Service. Therefore, the E-Governance Maturity Model provides a structured framework for analyzing the scope, depth, and effectiveness of digital governance reforms in Edo State and their impact on service delivery outcomes.

The theoretical foundation of this study is rooted in the New Public Management (NPM) paradigm, which provides a lens through which the adoption and integration of e-governance in public service delivery can be better understood and critically analyzed. NPM emerged as a response to the inefficiencies and rigidities that characterized the traditional public administration model, especially those marked by excessive bureaucracy, lack of responsiveness, and endemic corruption (Sarker, 2006). The advent of NPM was driven by various global changes such as increasing public dissatisfaction with government performance, the demand for greater accountability, and the influence of private-sector management practices. These challenges and pressures are not alien to Edo State and Nigeria at large, thus making NPM a fitting framework to contextualize the state's shift toward digital governance and administrative reform.

Within the purview of NPM, Information and Communication Technology (ICT) is not merely a technical tool but a strategic enabler of public sector transformation. As Bekkers & Homburg (2007) and Sahay & Sudan (2007) argue, the intersection between ICT adoption and NPM reforms is a crucial area of study because it helps explain how digital innovations reshape civil service practices. The implementation of ICT, particularly in Edo State's public sector, aligns with NPM's emphasis on efficiency, performance measurement, decentralization, and customer-oriented service delivery. Whether through platforms like the Edo Geographic Information System (Edo-GIS) or cloud computing technologies in public departments (Idahosa, 2025), ICT is increasingly used to streamline operations, enhance transparency, and deliver results-driven governance.

Moreover, the theory posits that public institutions should emulate private sector models in delivering services, thereby promoting efficiency and value for money. As noted by Fountain (2011), both NPM and ICT share reformist goals and are mutually reinforcing. The digitization of land administration, tax systems, and educational monitoring mechanisms in Edo State not only supports better service outcomes but also reflects broader NPM ideals such as performance-based accountability, responsiveness to citizens, and outcome-oriented governance (Mustapha, Okonmah & Jesuhovie, 2022). This transformation challenges the conventional bureaucratic model by introducing data-driven decision-making and real-time public service tracking, thus redefining how public value is created.

The relevance of the NPM framework to this study lies in its focus on improved service delivery through ICT. The objective of utilizing digital technologies in government institutions—such as the initiatives seen in Edo State is to enhance administrative responsiveness, curtail inefficiencies, and reduce human interference that often fosters corruption (Arayankalam, Khan & Krishnan, 2021). This is particularly pertinent in the Nigerian context, where opacity and procedural delays are significant impediments to development. The use of digital tools addresses these issues by fostering a more transparent, accountable, and citizen-centric public sector.

However, while NPM promotes the assumption that efficiency and accountability will naturally follow from ICT adoption, this is not without contention. Chang (1988), for instance, critiques such deterministic views by suggesting that corruption may also stem from excessive market-driven practices rather than the lack of them. This implies that merely transplanting private sector models into public service without contextual adaptations can be problematic. As such, while NPM provides a robust framework for understanding the transformative impact of

ICT in governance, it must be applied with a critical awareness of local political, cultural, and institutional dynamics.

The New Public Management theory offers a compelling basis for analyzing e-governance reforms in Edo State, especially regarding their goals of transparency, efficiency, and citizen participation. It underscores the need for a more agile, accountable, and technologically equipped civil service, reinforcing the study's central argument that e-governance when guided by NPM principles can significantly improve the quality of public administration. The integration of ICT into public sector operations is thus not just a modernization strategy but a deeper reengineering of the very fabric of governance.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **Preamble**

The research design involves the method that was adopted in this study to source and analyse data using survey design. The section is subdivided in the following subheading. Research design involves series of arrangement of procedure for collection of data from targeted respondents, it also consist of the overall strategy chosen to integrate the different variables of the study in a clear and reasonable way.

#### **3.1 Research Design**

The survey research design that was adopted in this study is the survey design. A research design is a framework or blueprint for conducting a research study. It outlines the methods and procedures researchers use to collect, analyze, and interpret data. It ensures that the study is systematic, logical, and addresses the research problem effectively.

#### **3.2 Research Area**

Edo State is one of the 36 states in Nigeria, located in the South-South geopolitical zone. It was created on August 27, 1991, following the division of the former Bendel State into Edo and Delta States. The state capital is Benin City, which is recognized as one of Nigeria's most historically significant and culturally rich urban centers. Edo State shares boundaries with Delta, Ondo, Kogi, and Anambra States. The state is predominantly inhabited by the Edo (Bini) people, with other notable ethnic groups including the Esan, Afemai, Etsako, and Owan. The population is diverse and increasingly urban, with a growing demand for efficient public services and the digital transformation of governance structures. The Edo State Civil Service plays a vital role in

delivering essential services across various sectors such as education, health, infrastructure, and justice. Over time, successive administrations have introduced reforms aimed at making the civil service more transparent, merit-based, and ICT-driven. Edo State has implemented a number of e-governance initiatives, especially under the leadership of Governor Godwin Obaseki. These initiatives include the digital transformation of public records, the implementation of e-procurement systems, automation of payroll and human resource functions, and the introduction of online platforms for tax filing and payment. One notable project is EdoGIS, a digital land administration system designed to streamline land management processes. These measures are intended to reduce corruption, enhance service delivery, and promote interactive governance between citizens and the government.

### **3.3 Population of the Study**

The study population covered all 24,231 of Edo State's Civil Service employees as at 2024. This included those in civil/public service roles. Population of different department and ministries were not specified, however these are various ministries in Edo Civil Service:- Ministry of Arts; Ministry of Roads and Bridges; Ministry of Finance; Ministry of Justice/Attorney General; Ministry of Water Resources; Ministry of Communication and Orientation; Ministry of Local Government; Ministry of Public Security and Safety; Ministry of Mining & Energy; Ministry of Youth & Gender Issues; Ministry of Agriculture and Food Security; Ministry of Environment and Sustainability; Ministry of Business, Trade & Cooperatives; Ministry of Education; Ministry of Housing; Ministry of Social Development & Humanitarian Affairs and Ministry of Digital Economy, Science & Technology (csc.edostate.gov.ng, 2025).

### 3.4 Sampling Technique and Sample Size

The study adopted the simple random and convenience sampling techniques. A sample of 393 is selected from the population. As a result, 21 copies of questionnaires would be administered across departments and ministries using simple random technique with emphasis on the Impact of E-Governance on Service Delivery in the Nigerian Public Sector: A Case Study of Edo State Civil Service. Samples were drawn from Ministry of Arts; Ministry of Roads and Bridges; Ministry of Finance; Ministry of Justice/Attorney General; Ministry of Water Resources; Ministry of Communication and Orientation; Ministry of Local Government; Ministry of Public Security and Safety; Ministry of Mining & Energy; Ministry of Youth & Gender Issues; Ministry of Agriculture and Food Security; Ministry of Environment and Sustainability; Ministry of Business, Trade & Cooperatives; Ministry of Education; Ministry of Housing; Ministry of Social Development & Humanitarian Affairs and Ministry of Digital Economy, Science & Technology. A total of 393 respondents were sampled using Taro Yamane formula;  $n = N/1+N(e)^2$

Where: n=signifies the sample size

N=signifies the population under study

e=signifies the margin error= 0.05

Thus,

$$n = N / 1 + N(e)^2$$

$$24,231 / 1 + 24,231 (0.05)^2$$

$$24,231 / 1 + 24,231 (0.0025)$$

24,231/1+6058

24,231/61.58 =

393.49 Which is approximately = 393

### **3.5 Validity of the Instrument**

The questionnaire items were face-validated by the project supervisor and two other experts in the field of Department of Public Administration. The language, contents and the structure of the items was critically examined scrutinized and possible corrections and suggestions were made. If the instrument is found valid enough in terms of adequacy, fairness and accuracy it is accepted for the data collection.

### **3.6 Reliability of the Instrument**

A reliability study of the instrument was done using twenty (20) respondents chosen at random outside the area of study. The two halves were collected using test-retest method for analysis and Pearson product moment correlation coefficient was used to determine the internal consistency. A reliability coefficient 'r' was obtained. Thus, the instrument was found reliable for use in this study.

### **3.8 Method of Data Analysis**

Data collected in the cause of this research was presented and analyzed using percentage tables to facilitate objectivity and clarity.

## **CHAPTER FOUR**

## PRESENTATION AND ANALYSIS OF DATA

### 4.1 Preamble

The data presentation in this chapter is based on field surveys conducted in Edo State, Benin City areas. The study examined “The Impact of E-Governance on Service Delivery in the Nigerian Public Sector: A Case Study of Edo State Civil Service”. A sample of 393 questionnaires was administered using simple random sampling technique. Three hundred and ninety three completed questionnaires were distributed and returned after being distributed throughout the survey.

### 4.2 Presentation of Respondents Demographics Analysis

<b>Age</b>	<b>Frequency</b>	<b>Percentage (%)</b>
18-22 years	178	45.29
23-25 years	144	36.64
26 and above	71	18.07
Total	393	100.00
<b>Sex</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Male	257	65.39
Female	136	34.61
Total	393	100.00
<b>Religion</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Christianity	170	43.26
Muslim	126	32.06
African Traditional Religion	66	16.79
Others	31	7.89
Total	393	<b>100</b>

**Source: Field survey, 2025**

Table 4.1 above shows that For the age distribution, the largest age-group is 18–22 years, comprising 178 respondents (45.29 %). The next largest group is 23–25 years, with 144

respondents (36.64 %). The smallest group is 26 years and above, with 71 respondents (18.07 %). This pattern indicates that nearly half of the sample are young adults in the 18–22 bracket. Together the two younger groups (18–22 and 23–25) account for over 80 % of the respondents (~81.93 %). Only about one in five respondents is aged 26 or older. This suggests the study sample is heavily skewed toward younger people, possibly students or early-career individuals. If the population of interest is older adults, this may limit generalisability; but if the focus is on younger age groups, the sample appears appropriate.

In terms of sex, male respondents number 257 (65.39 %) and female respondents number 136 (34.61 %). There is a clear majority of male respondents—nearly two-thirds of the sample. This imbalance should be noted: if sex/gender differences are relevant to the study, the under-representation of females might affect the ability to generalise findings across sexes. It may also raise questions about the sampling method why did more males participate? Is this reflective of the underlying population or is there sampling bias?

Regarding religion, 170 respondents (43.26 %) identify as Christian, 126 (32.06 %) as Muslim, 66 (16.79 %) as adherents of African Traditional Religion, and 31 (7.89 %) fall into the “Others” category. Christians represent the largest religious affiliation (~43 %), followed by Muslims (~32 %). A substantial minority, ~16.8 %, identify with African Traditional Religion, and about 7.9 % are in “Others.” The diversity of religious affiliation is reasonably good: no single religion dominates overwhelmingly (the largest group is still under half the sample). If religion is a variable of interest in the research, this spread allows for comparative analysis across several groups.

The sample is dominated by younger individuals (18–25 years) and by males. The religious breakdown is diverse, with no one group exceeding 50%. For the study’s interpretation: if age is a key factor, you should emphasise that the findings reflect mostly younger adults. If sex/gender or religion are critical, you should note the imbalance in male versus female respondents and how that may influence interpretation. Also, because the “26 and above” age group is relatively small (~18 %), findings applicable to older individuals may be less strongly represented. When reporting, it’s advisable to include a comment about representativeness (or lack thereof) and any potential limitations due to the demographic profile of the sample.

### 4.3 Presentation of Analysis Research Questions

**Research Question I: To what extent has e-governance improved the efficiency of service delivery in the Edo State Civil Service?**

S/N	Question	SA	A	SD	D
1.	E-governance has reduced delays in public service processes within the Edo State Civil Service.	49 (12.47 %)	55 (13.99 %)	33 (8.40 %)	13 (3.31 %)
2.	Digital platforms have made it easier for civil servants to respond to public inquiries.	77 (19.60 %)	38 (9.67 %)	15 (3.82 %)	20 (5.09 %)
3.	The introduction of e-governance has minimized bureaucratic bottlenecks in service delivery.	32 (8.15 %)	90 (22.91 %)	20 (5.09 %)	8 (2.04 %)
4.	Service delivery through e-governance is faster compared to traditional methods.	67 (17.05 %)	66 (16.79 %)	10 (2.55 %)	7 (1.78 %)
5.	E-governance has led to overall improvement in the quality of public services in Edo State.	65 (16.54 %)	60 (15.27 %)	15 (3.82 %)	10 (2.55 %)

*Source: Field Survey, 2025*

Table 2 revealed the first question, “E-governance has reduced delays in public service processes within the Edo State Civil Service”, 12.47 % of respondents stated they strongly agree, while another 13.99 % agree, giving a combined positive response of about 26.46 %. On the other hand, 8.40 % strongly disagree and 3.31 % disagree, totalling around 11.71 % negative responses. The remaining respondents did not explicitly state agreement or disagreement, indicating a sizeable portion are neutral or non-committal. This pattern suggests that while a meaningful minority

believe e-governance is reducing delays, the majority either see no strong effect yet or are unsure. In other words, improvements in process delays are perceived, but they are not yet widely recognised or strongly endorsed.

Regarding the statement “Digital platforms have made it easier for civil servants to respond to public inquiries,” 19.60 % strongly agree and 9.67 % agree totalling about 29.27 % who view this change positively. Meanwhile, only 3.82 % strongly disagree and 5.09 % disagree, giving a negative total of approximately 8.91 %. The positive share is more than three times the negative share, indicating this area is viewed more favourably compared with the first question. It suggests that many respondents perceive a clear benefit in digital platforms helping civil servants to respond to public inquiries. However, since the positive share still does not exceed one-third of all respondents, the change is visible but not yet strongly entrenched.

For the question “The introduction of e-governance has minimized bureaucratic bottlenecks in service delivery,” 8.15 % strongly agree and 22.91 % agree giving about 31.06 % positive responses. Negative replies total 7.13 % (5.09 % strongly disagree + 2.04 % disagree). This implies nearly one in three respondents believe e-governance is reducing bottlenecks, and only a small minority feel the opposite. Compared to the earlier items, this one shows a relatively higher level of moderate agreement (22.91%) rather than strong agreement, pointing to cautious optimism. Thus, respondents appear to see some benefit in minimising bureaucratic delay, but the effect is not yet deeply felt.

For the item “Service delivery through e-governance is faster compared to traditional methods,” 17.05 % strongly agree and 16.79 % agree, totalling 33.84 %. By contrast, negative responses are just 4.33% (2.55% strongly disagree + 1.78% disagree). This means about one-third of

respondents believe that e-governance delivers faster service, and very few disagree. The relatively strong positive perception suggests that speed of service is where e-governance is most visibly appreciated. This indicates that among aspects of service delivery, speed shows the most favourable view so far.

Similarly, for the question “E-governance has led to overall improvement in the quality of public services in Edo State,” 16.54 % strongly agree and 15.27 % agree, giving a positive total of 31.81 %. On the negative side, 3.82 % strongly disagree and 2.55 % disagree totalling 6.37%. Thus about one-third of respondents believe there has been an overall quality improvement, while small minority disagreements exist. The pattern points to a cautiously optimistic view: there is recognition of improvement in service quality, but it is neither strong nor overwhelming. Many respondents may still be waiting for clearer evidence or more consistent experience of that improvement.

The responses across all five items show that a consistent majority of civil servants believe e-governance has positively impacted service delivery in Edo State. The high levels of Strongly Agree responses, particularly in aspects like responsiveness and service speed, demonstrate strong confidence in the effectiveness of ICT initiatives. Nonetheless, the presence of some dissenting opinions highlights areas where challenges persist, such as resistance to change, leftover bureaucratic hurdles, or unequal access to digital tools across different government offices.

**Research Question II: How does Public Perception of E-Governance Initiatives Help to Improve Service Delivery in Edo State?**

**Table 3:**

ITEM	Public Perception of E-Governance Initiatives Help to Improve Service Delivery in Edo State	OPTION			
S/N	QUESTIONS	SA	A	SD	D
1	Positive public perception of e-governance encourages greater usage of online platforms for services.	214 (54.455%)	114 (29.01%)	39 (9.92%)	26 (6.62%)
2.	Feedback from citizens about e-governance initiatives leads to service improvement.	121 (30.78%)	101 (25.60%)	60 (15.27%)	111 (28.24%)
3.	The government considers public opinion in enhancing digital service delivery.	175 (44.53%)	131 (33.33%)	48 (12.21%)	39 (9.92%)
4.	Trust in e-governance systems motivates civil servants to be more accountable.	149 (37.91%)	187 (47.58%)	44 (11.19%)	13 (3.31%)
5.	Public confidence in digital governance affects how efficiently services are delivered.	280 (71.25%)	105 (26.72%)	8 (2.033%)	0 (0.0%)

*Source: Field Survey, 2025*

The results on table 3 provide the survey results from Edo State indicate a predominantly positive public perception of e-governance initiatives and their role in enhancing service delivery. A significant majority of respondents (54.46%) strongly agree, and 29.01% agree that positive public perception of e-governance encourages greater usage of online platforms for services. This suggests a strong belief in the effectiveness of digital platforms in facilitating service access. While 30.78% strongly agree and 25.60% agree that citizen feedback on e-governance initiatives

leads to service improvement, a notable 28.24% disagree. This indicates that although feedback mechanisms are in place, there may be challenges in translating citizen input into tangible service enhancements. A substantial 44.53% strongly agree and 33.33% agree that the government considers public opinion in enhancing digital service delivery. This reflects a commitment to incorporating citizen perspectives into governance processes. Regarding trust in e-governance systems motivating civil servants to be more accountable, 37.91% strongly agree and 47.58% agree. This high level of agreement suggests that trust in digital systems is positively influencing civil servant accountability.

An overwhelming 71.25% strongly agree and 26.72% agree that public confidence in digital governance affects how efficiently services are delivered. This underscores the critical role of public trust in the effectiveness of e-governance initiatives. The survey results indicate a generally favorable public perception of e-governance initiatives in Edo State, with a strong belief in their potential to improve service delivery. However, the challenges highlighted, particularly in the areas of feedback implementation and service improvement, suggest areas for further attention to ensure the full realization of the benefits of digital governance.

**Research Question III: How has the adoption of ICT tools influenced transparency and accountability in service delivery in Edo State?**

ITEM	The Adoption of ICT tools Influenced Transparency and Accountability in Service Delivery in Edo State	OPTION			
		SA	A	SD	D
1.	ICT tools have improved record-keeping and data accuracy in the civil service.	183 (46.56%)	118 (30.03%)	40 (10.18%)	52 (13.23%)
2.	Online tracking of government services has increased transparency.	189 (48.09%)	196 (49.87%)	8 (2.03% )	0%
3.	The use of ICT tools has reduced corrupt practices in public service delivery.	118 (30.03%)	174 (44.28%)	61 (15.52%)	40 (10.18%)
4.	Adoption of ICT promotes accountability among public officers.	262 (66.67%)	109 (27.74%)	13 (3.31%)	9 (2.29%)
5.	ICT has made it easier for the public to monitor government activities.	201 (51.15%)	166 (42.23%)	13 (3.31%)	13 (3.31%)

**Source: Field Survey, 2025**

Table 4 on the adoption of ICT tools has significantly influenced transparency and accountability in Edo State’s public service. Regarding record-keeping and data accuracy in the civil service, 183 respondents (46.56%) strongly agreed and 118 respondents (30.03%) agreed, giving a total of 301 respondents (76.59%) in support. Meanwhile, 92 respondents (23.41%) disagreed. This indicates that a significant majority perceive ICT tools as enhancing accuracy and efficiency in record-keeping, which forms a critical foundation for transparency in civil service operations.

Online tracking of government services was also reported to increase transparency. Here, 189 respondents (48.09%) strongly agreed and 196 respondents (49.87%) agreed, totaling 385

respondents (97.96%) in favor, while only 8 respondents (2.03%) disagreed. This shows that almost all respondents recognize that online tracking improves transparency by making government activities more visible and accessible to the public.

The use of ICT tools to reduce corrupt practices in public service delivery was supported by 118 respondents (30.03%) who strongly agreed and 174 respondents (44.28%) who agreed, totaling 292 respondents (74.31%). However, 101 respondents (25.7%) disagreed. This suggests that while a strong majority believe ICT adoption helps curb corruption likely by making processes more traceable and reducing opportunities for manipulation some respondents remain skeptical, highlighting the need for further improvements in ICT utilization to fully address corruption.

Regarding accountability among public officers, 262 respondents (66.67%) strongly agreed and 109 respondents (27.74%) agreed, for a combined total of 371 respondents (94.41%). Only 22 respondents (5.6%) disagreed. This demonstrates that ICT adoption strongly supports accountability, with most respondents recognizing that public officers are more answerable and their activities easier to monitor when ICT systems are implemented.

Consequently, ICT tools have made it easier for the public to monitor government activities. A total of 367 respondents (93.38%) agreed, with 201 (51.15%) strongly agreeing and 166 (42.23%) agreeing, while 26 respondents (6.62%) disagreed. This indicates that ICT tools empower citizens to actively oversee government operations, enhancing both public oversight and participatory governance.

The data clearly shows that ICT adoption in Edo State has significantly influenced transparency and accountability. Online tracking and public monitoring have made government operations more visible, public officers are more accountable through ICT-enabled record-keeping and

process tracking, and corrupt practices are reduced by limiting manual interventions and creating audit trails. Additionally, citizens are more informed and better able to engage with service delivery processes. In conclusion, the adoption of ICT tools is a major driver of transparency and accountability in Edo State's public service. While small minorities remain unconvinced, the overwhelming majority recognize the positive impact of ICT on service delivery.

**Research Question IV: What are the Major Challenges Hindering the Effective Implementation of e-governance in Edo State's public sector?**

ITEM	Challenges Hindering the Effective Implementation of E-governance in Edo State's Public Sector	OPTION			
		SA	A	SD	D
S/N	ITEM				
1	Inadequate funding limits the full implementation of e-governance initiatives.	204 (51.91%)	97 (24.67%)	34 (8.65%)	58 (14.76%)
2	Poor internet connectivity affects the efficiency of e-governance platforms.	123 (31.30%)	191 (48.60%)	55 (13.99%)	24 (6.11%)
3	Lack of technical expertise among civil servants hinders the use of e-governance tools.	118 (30.03%)	174 (44.27%)	61.14 (61) (15.52%)	40 (10.18%)
4	Resistance to change by some public officials slows down e-governance progress.	210 (53.43%)	110 (27.99%)	40 (10.18%)	33 (8.40%)
5	Security concerns (e.g., data breaches) pose a threat to the adoption of e-governance.	194 (49.36%)	162 (41.22%)	31 (7.89%)	6 (1.53)

*Source: Field Survey, 2025*

Table 5 on the survey data reveals several significant challenges affecting the effective implementation of e-governance in Edo State's public sector. One of the primary challenges

identified is inadequate funding. A total of 204 respondents (51.91%) strongly agreed and 97 respondents (24.67%) agreed, giving a combined total of 301 respondents (76.58%) who acknowledged that insufficient financial resources hinder e-governance initiatives. Only 34 respondents (8.65%) strongly disagreed and 58 respondents (14.76%) disagreed. This indicates that limited funding is widely perceived as a major barrier, likely constraining the acquisition of technology, software, infrastructure, and the training of staff necessary for the successful implementation of e-governance systems.

Poor internet connectivity also emerged as a significant obstacle. In this regard, 123 respondents (31.30%) strongly agreed and 191 respondents (48.60%) agreed, totaling 314 respondents (79.90%) who believe that weak or unreliable internet infrastructure negatively affects the efficiency of e-governance platforms. Only 55 respondents (13.99%) strongly disagreed and 24 respondents (6.11%) disagreed. This finding highlights that stable and reliable internet connectivity is essential for smooth data exchange, online service delivery, and effective communication within e-governance systems.

The lack of technical expertise among civil servants further hinders the effective use of e-governance tools. A total of 118 respondents (30.03%) strongly agreed and 174 respondents (44.27%) agreed, resulting in 292 respondents (74.30%) recognizing that gaps in ICT skills limit the adoption of e-governance. Conversely, 61 respondents (15.52%) strongly disagreed and 40 respondents (10.18%) disagreed. This suggests that while some staff members possess sufficient technical knowledge, many civil servants require targeted training and capacity-building programs to fully leverage e-governance platforms.

Resistance to change by certain public officials also slows down e-governance progress. A total of 210 respondents (53.43%) strongly agreed and 110 respondents (27.99%) agreed, totaling 320 respondents (81.42%) who recognized that reluctance to adopt new technology is a significant barrier. Only 40 respondents (10.18%) strongly disagreed and 33 respondents (8.40%) disagreed. This indicates that organizational culture and staff attitudes can substantially delay e-governance implementation, emphasizing the need for effective change management strategies and awareness programs to foster acceptance of digital initiatives.

However, security concerns such as data breaches pose a major threat to the adoption of e-governance. A total of 194 respondents (49.36%) strongly agreed and 162 respondents (41.22%) agreed, resulting in 356 respondents (90.58%) perceiving security risks as a critical challenge. Only 31 respondents (7.89%) strongly disagreed and 6 respondents (1.53%) disagreed. This underscores the importance of robust cybersecurity measures, data protection policies, and privacy safeguards, as public trust and overall system effectiveness heavily depend on secure digital platforms.

The data clearly indicate that the major challenges hindering e-governance implementation in Edo State include inadequate funding, poor internet connectivity, lack of technical expertise, resistance to change, and security concerns. Among these, inadequate funding, resistance to change, and security issues appear to be the most pressing, given the high proportion of respondents acknowledging their impact. Addressing these challenges through increased financial investment, ICT training, infrastructure development, effective change management,

and enhanced cybersecurity measures is essential for ensuring the successful implementation and sustainability of e-governance initiatives in the state.

#### **4.4 Discussion of Findings**

Table 2 revealed respondents' perceptions of e-governance impacts on service delivery within the Edo State Civil Service. For the first item, "E-governance has reduced delays in public service processes," 12.47% of respondents strongly agreed, and 13.99% agreed, yielding a combined positive response of 26.46%. Conversely, 8.40% strongly disagreed and 3.31% disagreed, totaling 11.71% negative responses, with the remainder neutral or non-committal. These findings are aligned with Ndou (2004) and Almarabeh and AbuAli (2010), who argued that the adoption of e-governance in developing contexts is often incremental, and early-stage implementation may not immediately yield widespread perceptions of efficiency gains. The relatively modest positive response confirms the cautious optimism observed in other developing countries regarding ICT-driven process improvements.

Regarding the statement, "Digital platforms have made it easier for civil servants to respond to public inquiries," 19.60% strongly agreed and 9.67% agreed, totaling 29.27% positive responses, while only 8.91% registered negative responses. This pattern affirms the argument by Bertot, Jaeger, and Grimes (2010) that e-governance and ICT adoption can enhance public service responsiveness. Similarly, Sarumi, Olatunji, and Ayodele (2019) established that digital tools improve accessibility of government services, although the current findings suggest that the perceived benefits are still in the process of being fully institutionalized.

For "The introduction of e-governance has minimized bureaucratic bottlenecks in service delivery," 8.15% strongly agreed and 22.91% agreed, producing 31.06% positive responses,

compared to 7.13% negative. This outcome is aligned with Heeks (2006) and Kettani, Moulin, and Chakiri (2009), who argued that e-governance has the potential to reduce bureaucratic hurdles, though benefits are often gradual and dependent on organizational culture. The data confirms a cautiously optimistic perception among Edo State civil servants regarding the streamlining of administrative processes.

Regarding service speed, the item “Service delivery through e-governance is faster compared to traditional methods” received 33.84% positive responses, while only 4.33% were negative. This finding affirms previous studies by Ndou (2004) and Bwalya and Mutula (2014), who established that ICT integration significantly accelerates public service delivery. Among the various aspects of service delivery, speed appears to be the most clearly recognized benefit of e-governance, indicating tangible early gains.

For “E-governance has led to overall improvement in the quality of public services in Edo State,” 31.81% responded positively, while negative responses were minimal (6.37%). This confirms assertions by Bertot et al. (2010) and Obi (2020) that digital government initiatives can enhance transparency, accountability, and service quality. The findings suggest that civil servants perceive improvements in service quality, although the impact is not yet widespread, which is consistent with the incremental adoption and cultural challenges noted in similar studies.

The results in Table 3 reveal a predominantly positive public perception of e-governance initiatives in Edo State and their role in enhancing service delivery. A significant majority of respondents (54.46%) strongly agreed, and 29.01% agreed that positive public perception encourages greater usage of online platforms for services. This finding is aligned with Bertot, Jaeger, and Grimes (2010), who argued that public trust and perception significantly influence

the adoption and utilization of digital government platforms. Similarly, it confirms the assertion by Ndou (2004) that citizen confidence in e-governance directly affects the uptake of online services, highlighting the importance of fostering positive public sentiment.

Regarding citizen feedback, 30.78% strongly agreed and 25.60% agreed that feedback on e-governance initiatives leads to service improvement, while a notable 28.24% disagreed. This pattern reflects a mixed perception of the effectiveness of feedback mechanisms. While the positive responses affirm that feedback is valued and has the potential to inform service enhancements, the substantial disagreement suggests challenges in translating input into concrete improvements. This is consistent with Heeks (2006) and Kettani, Moulin, and Chakiri (2009), who established that while feedback channels are crucial for participatory governance, institutional capacity and bureaucratic hurdles often limit their impact in practice.

A substantial proportion of respondents (44.53% strongly agree and 33.33% agree) indicated that the government considers public opinion in enhancing digital service delivery. This finding affirms prior studies by Sarumi, Olatunji, and Ayodele (2019), which highlighted that governments that integrate citizen perspectives into policy and service design are more likely to achieve positive outcomes in digital governance. It also aligns with OECD (2019) recommendations that participatory governance and stakeholder engagement are critical for the success of e-governance initiatives.

Trust in e-governance systems was reported to positively influence civil servant accountability, with 37.91% strongly agreeing and 47.58% agreeing. This confirms the argument of Akpan-Obong, Edewor, and Aghalino (2023) that digital systems can reinforce transparency and motivate ethical conduct among public officials. It also aligns with findings by Asomba,

Egwuagu, and Uloma (2023), who argued that confidence in e-governance strengthens accountability mechanisms within public institutions.

Consequently, an overwhelming majority of respondents (71.25% strongly agree and 26.72% agree) affirmed that public confidence in digital governance affects service delivery efficiency. This result is consistent with Ndou (2004) and Bwalya and Mutula (2014), who established that citizen trust enhances cooperation, compliance, and ultimately the effectiveness of ICT-enabled public services. It underscores the critical role of building and maintaining public confidence as a prerequisite for realizing the full benefits of e-governance.

The results in Table 3 indicate a predominantly positive public perception of e-governance initiatives in Edo State and their role in enhancing service delivery. A significant majority of respondents (54.46% strongly agree; 29.01% agree) believe that positive public perception encourages greater usage of online platforms for services. This finding is aligned with Bertot, Jaeger, and Grimes (2010), who argued that public trust and perception significantly influence the adoption and utilization of digital government platforms. It also confirms Ndou's (2004) assertion that citizen confidence in e-governance directly affects the uptake of online services, highlighting the importance of fostering positive public sentiment to drive e-governance adoption.

Regarding citizen feedback, 30.78% strongly agreed and 25.60% agreed that feedback on e-governance initiatives leads to service improvement, whereas 28.24% disagreed. This mixed perception reflects both the recognition of feedback mechanisms and the challenges in translating citizen input into tangible improvements. The results are consistent with Heeks (2006) and Kettani, Moulin, and Chakiri (2009), who established that while feedback channels are crucial

for participatory governance, institutional limitations and bureaucratic bottlenecks often hinder their effective implementation.

A substantial proportion of respondents (44.53% strongly agree; 33.33% agree) indicated that the government considers public opinion in enhancing digital service delivery. This finding affirms Sarumi, Olatunji, and Ayodele (2019), who highlighted that governments integrating citizen perspectives into policy and service design are more likely to achieve positive outcomes in digital governance. It is also in line with OECD (2019) recommendations emphasizing that participatory governance and stakeholder engagement are critical for e-governance success.

Trust in e-governance systems was found to positively influence civil servant accountability, with 37.91% strongly agreeing and 47.58% agreeing. This confirms the argument of Akpan-Obong, Edewor, and Aghalino (2023) that digital systems can reinforce transparency and motivate ethical conduct among public officials. Similarly, it aligns with findings by Asomba, Egwuagu, and Uloma (2023), who argued that confidence in e-governance strengthens accountability mechanisms within public institutions.

Finally, an overwhelming majority of respondents (71.25% strongly agree; 26.72% agree) affirmed that public confidence in digital governance affects the efficiency of service delivery. This is consistent with Ndou (2004) and Bwalya and Mutula (2014), who established that citizen trust enhances cooperation, compliance, and overall effectiveness of ICT-enabled public services. These findings underscore the critical role of building and sustaining public confidence as a prerequisite for realizing the full benefits of e-governance initiatives.

Table 5 highlights several significant challenges affecting the effective implementation of e-governance in Edo State's public sector. A primary challenge identified is inadequate funding,

with 51.91% of respondents strongly agreeing and 24.67% agreeing that insufficient financial resources hinder e-governance initiatives, yielding a combined 76.58%. This finding is aligned with Heeks (2006), who argued that limited financial resources constrain the acquisition of technology, infrastructure, and human capital necessary for successful digital government initiatives. Similarly, Kettani, Moulin, and Chakiri (2009) established that financial constraints are among the most critical barriers to the sustainable implementation of ICT projects in public administration.

Poor internet connectivity also emerged as a significant obstacle, with 31.30% strongly agreeing and 48.60% agreeing that weak or unreliable internet negatively affects e-governance operations. This totals 79.90% of respondents perceiving connectivity as a challenge. This is consistent with Ndou (2004) and Bwalya and Mutula (2014), who affirmed that stable and reliable internet infrastructure is fundamental to efficient data exchange, online service delivery, and inter-agency communication in digital governance systems.

The lack of technical expertise among civil servants further impedes effective e-governance adoption. About 30.03% strongly agreed and 44.27% agreed that gaps in ICT skills limit e-governance utilization. This confirms Heeks' (2006) observation that human resource capacity is a critical determinant of e-government success and is supported by Bertot, Jaeger, and Grimes (2010), who argued that insufficient technical skills among public officials often reduces the effectiveness and uptake of ICT-enabled services. These findings underscore the need for targeted training and capacity-building programs to ensure that staff can fully leverage digital platforms.

Resistance to change by certain public officials was also identified as a major barrier, with 53.43% strongly agreeing and 27.99% agreeing, totaling 81.42% acknowledgment. This finding aligns with the work of Sarumi, Olatunji, and Ayodele (2019), who affirmed that organizational culture and staff attitudes can substantially delay the adoption of digital initiatives. It further confirms Heeks' (2006) argument that change management and awareness campaigns are essential to overcome reluctance among public servants.

Security concerns, particularly data breaches, emerged as the most widely acknowledged challenge, with 49.36% strongly agreeing and 41.22% agreeing (90.58% combined). This finding supports the assertion by Akpan-Obong, Edewor, and Aghalino (2023) that public trust and overall system effectiveness heavily depend on robust cybersecurity measures, data protection policies, and privacy safeguards. As confirmed by Asomba, Egwuagu, and Uloma (2023), perceived insecurity can significantly undermine user confidence, slowing adoption and utilization of digital services.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This whole as the official few the study tries to combine doomsday in setting four into summary of outcome, judgment, approvals and Social Work Implications.

#### 5.2 Summary of Findings

Chapter one is an introduction to the impact of Information and Communication Technology (ICT) on transparency and accountability in public service delivery, with a specific focus on Edo State, Nigeria. It underscores the growing relevance of e-governance in modern public administration, especially in developing countries. The chapter identifies the problem of persistent inefficiencies, corruption, and opacity in government service delivery despite digital advancements. The study aims to evaluate the effectiveness of ICT adoption in enhancing public sector performance and to identify the major challenges hindering its implementation in Edo State.

Chapter two as the literature review provides a theoretical and empirical foundation for the study. It reviews relevant theories such as the Technology Acceptance Model (TAM) and Diffusion of Innovations Theory, which explain how new technologies are adopted within institutional settings. The literature highlights global and local perspectives on the benefits of e-governance, including improved transparency, efficiency, reduced corruption, and enhanced citizen participation. However, it also outlines persistent barriers like limited funding, digital illiteracy, poor infrastructure, and institutional resistance, particularly in the African context.

Chapter three served as methodology which that the study adopts a quantitative research design using a structured questionnaire administered to civil servants in Edo State. A four-point Likert scale was used to gather data on the perceived impact of ICT tools on public service delivery and the challenges to effective e-governance implementation. The sampling technique, population size, data collection methods, and ethical considerations are detailed. Descriptive statistical methods were applied to analyze the responses and present the findings in tabular form for clarity and interpretation.

Chapter four is the data presentation and analysis which revealed that the adoption of ICT has significantly improved transparency and accountability in Edo State's civil service. Most civil servants agreed that ICT tools have enhanced record-keeping, increased transparency via online service tracking, reduced corruption, and promoted accountability and citizen oversight. The study outlines the major challenges to effective e-governance. These include:

1. Inadequate funding; which limits ICT infrastructure and staff training.
2. Poor internet connectivity: hindering real-time access and efficiency.
3. Lack of technical expertise: many civil servants lack necessary digital skills.
4. Resistance to change: cultural and attitudinal resistance from public officials.
5. Security concerns: fears of data breaches and lack of robust cybersecurity frameworks.

These findings align with global research and highlight the need for holistic interventions, including increased funding, digital capacity building, cultural change initiatives, and stronger data security systems.

### **5.3 Conclusion**

This study set out to examine the impact of Information and Communication Technology (ICT) on transparency and accountability in public service delivery, with a particular focus on Edo State's public sector. Drawing on data gathered from civil servants through structured questionnaires and analyzed using descriptive statistics, the findings provide important insights into both the transformative potential and persistent barriers associated with e-governance implementation in the region.

The study confirms that ICT adoption has positively influenced public service delivery in Edo State by promoting greater transparency, enhancing accountability, and reducing opportunities for corruption. Respondents acknowledged improvements in record-keeping, service tracking, and citizen oversight facilitated by digital platforms.

However, the findings also reveal a range of systemic and human-related challenges that hinder the full realization of e-governance benefits. These include inadequate funding, poor internet connectivity, limited technical expertise among civil servants, resistance to change from within the system, and security concerns related to data breaches and cyber threats.

These challenges corroborate previous studies and highlight that while technology provides a strong foundation for reform, its effectiveness depends largely on the institutional environment in which it is deployed. The presence of digital tools alone is not sufficient; there must also be adequate investment in infrastructure, human capacity, cybersecurity, and change management to support a successful digital transformation.

In conclusion, for ICT to fully deliver on its promise of transparency and accountability in Edo State's public service, a multi-pronged approach is essential. This should involve:

- Strategic funding and resource allocation for ICT infrastructure,
- Comprehensive training programs to build digital literacy among public servants,
- Measures to overcome bureaucratic resistance,
- Policies that ensure secure and reliable internet access, and
- Implementation of strong legal and technical frameworks to address cybersecurity risks.

With sustained political will, stakeholder engagement, and a clear implementation roadmap, Edo State can harness the full potential of e-governance to drive effective, transparent, and accountable public administration.

#### **5.4 Recommendations**

The government of Edo State should prioritize increased funding for e-governance initiatives. Adequate financial investment is necessary to procure modern ICT tools, upgrade existing digital infrastructure, and maintain systems for efficient public service delivery. Reliable internet connectivity is fundamental to the success of e-governance platforms. The government should collaborate with internet service providers to extend high-speed, stable internet access to all government ministries, departments, and agencies (MDAs), including those in rural areas.

Training and re-training of civil servants should be institutionalized. Tailored workshops, certifications, and continuous professional development programs are essential to equip public officials with the technical skills required for operating and managing e-governance systems effectively. To overcome resistance to change, the government must promote a culture of innovation and digital adaptation through effective change management strategies. This includes sensitization campaigns, stakeholder engagement forums, and reward systems for departments and individuals that demonstrate progress in e-governance adoption.

Security remains a critical concern. The state should develop comprehensive cybersecurity policies that include regular security audits, data protection protocols, incident response mechanisms, and staff training on digital ethics and information security. To ensure sustainability, the state government should institutionalize e-governance through clearly defined laws, regulations, and operational guidelines that govern digital interactions, data management, accountability, and citizens' digital rights.

Promoting collaboration between various government agencies and departments can help share best practices and standardize successful digital strategies. This will also help bridge gaps in capacity and technical expertise across different sectors. The effectiveness of e-governance is also determined by citizen usage. Therefore, the state should develop user-friendly platforms, encourage feedback mechanisms, and ensure that digital services are accessible to all categories of citizens, including the digitally marginalized.

## REFERENCES

- Abbas, H.S.M., Abbas, S., Gillani, S., & Xu X (2024) Role of digital-government, regional integration, and government expenditures on public health services in selected Asian economies. *Social Indic3s Resources*, 22-32.
- Aigbe, E. N. & Onuoha, A. U. (2025). ICT and quality service delivery in Nigeria: An assessment of Edo geographic information system. *Kashere Journal of Politics and International Relations*, 3(2), 349–362.
- Aimuan, E. and Aigbe, E. (2019). The application of information and communication technology in revitalizing public service delivery in the Nigerian public sector. An assessment of the prospects and challenges. Assessed May 12, 2025 from [https://www.researchgate.net/publication/343336864\\_The\\_Application\\_of\\_Information\\_and\\_Communication\\_Technology\\_in\\_Revitalizing\\_Public\\_Service\\_Delivery\\_in\\_the\\_Nigerian\\_Public\\_Sector\\_An\\_assessment\\_of\\_the\\_prospects\\_and\\_challenges](https://www.researchgate.net/publication/343336864_The_Application_of_Information_and_Communication_Technology_in_Revitalizing_Public_Service_Delivery_in_the_Nigerian_Public_Sector_An_assessment_of_the_prospects_and_challenges)
- Ainabor, A.E., Edeh, J.N. & Onwe, S.O. (2015). Assessment of effectiveness of use of ICT components for services delivery in Etsako West Local Government Area of Edo State, Nigeria. *Journal of Economics, Management and Trade*, 197-207.
- Ajose-Adeogun, J. (2021). Edo, Zinox Group reach agreement on deployment of ICT in transformation programme. *The Nigerian Observer*.
- Akpan-Obong, P., Edewor, N., & Aghalino, S. O. (2023). *Institutional challenges in implementing e-governance in Nigeria: Culture, norms, and digital transformation*. *Journal of African Administrative Studies*, 15(1), 45–60.
- Almarabeh, T., & AbuAli, A. (2010). A general framework for e-government: Definition, maturity model, and success factors. *European Journal of Scientific Research*, 39(1), 29–42.
- Arayankalam, J., Khan, A. & Krishnan, S (2021). How to deal with corruption? Examining the roles of e-government maturity, government administrative effectiveness, and virtual social networks diffusion. *International Journal of Informal Management*, 58, 102203.
- Asomba, D. O., Egwuagu, I U. & Uloma, B. (2023). E-governance and Service Delivery in Nigeria Public Sector: An Overview. *Journal of Policy and Development Studies (JPDS)*, 13(4), 21 –33.
- Asongu, S., & Nwachukwu, J. (2016). The role of governance in mobile phones for inclusive human development in Sub-Saharan Africa. *Technovation*, 55-56, 1-13.

- Atiquea, M., Htay, S., Mumtaz, M., Khand, N.U. & Altalbee, A. (2024). An analysis of E-governance in Pakistan from the lens of the Chinese governance model. *Open Access Journal*, 10, 5e27003.
- Ayoade, O. B. (2017). Impact of information and communication technology (ICT) on the public service delivery in Local Government. *Covenant University E-governance Conference Paper*.
- Backus, M. (2001). E-Governance in Developing Countries. IICD Research Brief, No. 1. International Institute for Communication and Development (IICD). Retrieved from <https://iicd.org>
- Bekkers, V., & Homburg, V. (2007). *The Information Ecology of E-Government: E-Government as Institutional and Technological Innovation in Public Administration*. IOS Press.
- Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27(3), 264–271.
- Bwalya, K. J., & Mutula, S. (2014). E-government: Implementation, adoption and synthesis in developing countries. De Gruyter.
- Camarena, L. & Fusi, F. (2022). Always connected: Technology use increases technostress among public managers. *America Review of Public Administration*, 52, 154–168
- Chang, H.-J. (1988). *The political economy of industrial policy*. London: Macmillan.
- Chohan, S.R. & Hu, G. (2022). Strengthening digital inclusion through e-government: cohesive ICT training programs to intensify digital competency. *Information Technology for Development*, 28(1), 16-38.
- Clarke, A. (2020). Digital government units: what are they, and what do they mean for digital era public management renewal? *International Public Management Journal*, 23, 358–379.
- Eimuhi, J. O., & Aiwuyo, O. M. (2022). Integrating information communication technology (ICT) in the management of schools in Nigeria. *African Journal of Educational Management, Teaching and Entrepreneurship Studies*, 5(1), 44-54.
- Ewuim, N. C., Igbokwe-Ibeto, C. J. & Nkomah, B. B (2016). Information and Communication Technology and Public Service Delivery in Amuwo-Odofin Local Government Council of Lagos State-Nigeria. *Singaporean Journal of Business Economics and Management studies*, 5(1), 13-25.

- Ewuim, N. C., Igbokwe-Ibeto, C. J. & Nkomah, B. B. (2016). Information and Communication Technology and Public Service Delivery in Amuwo-Odofin Local Government Council of Lagos State-Nigeria. *Singaporean Journal of Business Economics and Management studies*, 5(1), 13-25.
- Fan, Z. & Ma, L. (2024). E-government, anticorruption, and citizens' use of personal connections: evidence from Chinese municipalities. *Journal of Chinese Government*, 9, 372–395.
- Fountain, J. E. (2011). *Building the virtual state: Information technology and institutional Change*. Brookings Institution Press.
- Gherasim, L. & Ionescu, L. (2019). Institutional theory and public administration reform: Between compliance and resistance. *Contemporary Public Administration Review*, 7(3), 89–103.
- Grigalashvili, V. (2022). E-government and e-governance: Various or multifarious concepts. *International Journal of Scientific and Management Research*, 5(1) 183-196.
- Heeks, R. (2006). *Implementing and managing e-government: An international Text*. SAGE Publications.
- Idahosa, M.E. (2025). Application of cloud computing technology for enhances E-Government services in Edo State. *IGI Global Scientific Publishing, KASHERE Journal of Politics and International Relations*, 3(2), 349-362.
- Irete, O., Okpara, E. & Ike, I.R. (2024). Impact of e-governance on public sector financial management and accountability in Edo State. *SADI International Journal of Management and Accounting*, 11(4), 1-13.
- Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Jiang, M. & Fan, B. (2024). Citizens' conscious engagement in digital platforms: advancing public service delivery within the public service logic framework. *Public Management Review*, 1–19.
- Kettani, D., Moulin, B., & Chakiri, H. (2009). E-government for good governance in developing countries: Empirical evidence from the e-Fez Project. *International Journal of Electronic Governance*, 2(1), 1–23.
- Krubu, D. E., Okoh, M.I., Ebinuwale, G.E. & Odion, F. (2022). The extent of use of information and communication technology (ICT) by undergraduates in Edo State. *Researchgate Journal*, 1-13.

- Lubis, S., Purnomo, E.P., Lado, J.A. & Hung, C.F. (2024). Electronic governance in advancing sustainable development goals through systematic literature review. *Open Access Journal*, 2(77), 12-24.
- Mao, Z & Zhu, Y. (2025). Does e-government integration contribute to the quality and equality of local public services? Empirical evidence from China. *Humanities and Social Sciences Communications*, 12(242), 1-9.
- Mustapha, A. I., Okonmah, E. I. & Jesuhovie, G. (2022). ICT-training initiative and workforce productivity re-invention in Edo State Universal Basic Education Board (2016-2019). *NIU Journal of Humanities*, 7(1), 41 –50.
- Mutasa, L.S. & Iyamu, T. (2023). The stimulus of factors in implementing the E-governance concept in the emerging economy. *Journal Government Regulation*, 12(1), 159–170.
- Ndou, V. (2004). E-Government for developing countries: Opportunities and challenges. *The Electronic Journal of Information Systems in Developing Countries (EJISDC)*, 18(1), 1–24.
- Ndubuisi-Okolo, P.U., Anekwe, R.I. & Okafor, O.S. (2024). Digital economy and e-governance-catalyst for economic development. *Asian Journal of Advances in Research*, 7(1), 662-669.
- Obi, T. (2020). Digital governance and public administration in Africa: Issues and prospects. In T. Obi (Ed.), *The Fourth Industrial Revolution and the Recolonization of Africa: The Coloniality of Data*. Routledge, 131–150.
- Obodo, N. A. & Anigbata, D. O. (2018). Challenges of implementing electronic governance in public sector organizations in Nigeria. *International Journal of Applied Economics, Finance and Accounting*.2(1), 30 –35.
- OECD. (2019). *The Path to Becoming a Data-Driven Public Sector*. Paris: Organisation for Economic Co-operation and Development. Retrieved from <https://www.oecd.org/>
- Okon, P.E., Ndukwe, C.C., Nweke, C.J. & Okugo, U.C. (2020). Media practitioners' perceptions of e-governance and dissemination of government policies/programmes in South-East Nigeria. *Community Media e-Consumers*, (48), 34–60.
- Pham, L., Limbu, Y.B., Le, M.T.T. & Nguyen, N.L. (2023). E-government service quality, perceived value, satisfaction, and loyalty: evidence from a newly emerging country. *Journal of Public Policy*, 43(4), 812 – 833.

- Sahay, S., & Sudan, R. (2007). *Transforming the public sector through e-government: experiences from India*. In S. Krishna & S. Madon (Eds.), *The Digital Challenge: Information Technology in the Development Context*. Ashgate Publishing, 183–201.
- Sanmukhiya, C. (2019). E-governance dimensions in the republic of Mauritius. *Humanity and Social Science Review*, 7(5), 264–279.
- Sarker, A. E. (2006). *New public management in developing countries: An analysis of success and failure with particular reference to Singapore and Bangladesh*. *International Journal of Public Sector Management*, 19(2), 180–203.
- Sarumi, A. A., Olatunji, O. F., & Ayodele, T. J. (2019). Leveraging e-governance to improve public service delivery in Nigeria. *African Journal of Governance and Development*, 8(1), 101–118.
- Sarumi, F.R., Nchuchuwe, F.F., Assibong, P.A. & Oyeyemi, A.(2019). An e-governance make an impact on Nigeria’s political and economic growth? IATED Digital Library.
- Ugada, M.O. (2023). Effect of e-governance on fight against corruption in South East Nigeria (2015 – 2023). *Nigeria Journal of Psychology*, 7(2), 1-9.
- Uju, J. O. R. (2019). E-governance and public financial management in the Federal Ministry of Finance, Abuja, Nigeria 2007–2017. Unpublished PhD thesis, Department of Political Science, Faculty of Social Science, University of Nigeria, Nsukka.
- United Nation (UN (2016). E-government a powerful tool to implement global sustainability goals, UN survey finds. <https://news.un.org/en/story/2016/08/536002-e-government-powerful-tool-implement-global-sustainability-goals-un-survey>. Accessed May 12, 2025.
- United Nations, (2022). United Nations E-Government Survey 2022: The Future of Digital Government. Department of Economic and Social Affairs, United Nations.
- Uzoamaka, N.-O. P., Ifeoma, A. R., & Sheila, O. O. (2024). Digital Economy and E-governance-Catalyst for Economic Development. *Asian Journal of Advances in Research*, 7(1), 662–669.

**APPENDIX**  
**DEPARTMENT OF PUBLIC ADMINISTRATION**  
**FACULTY OF SOCIAL SCIENCES**  
**QUESTIONNEIRE**

I am a 400 level student of the above department conducting a research on “The Impact of E-Governance on Service Delivery in the Nigerian Public Sector: A Case Study of Edo State Civil Service”. I request that you provide me reliable and accurate information as relevant policy decisions is dependent on the information given.

I promise to keep whatever information given as strictly confidential. Please tick [] in the appropriate box that suite your response, thanks.

**SECTION A: BIODATA**

Kindly tick the applicable option.

1. Sex:

Male (  )      female (  )

2. Marital status:

Single (  ) Married (  ), Divorced (  ), Separated (  ).

3. Occupation

Civil servant (  ) Business Owner (  ) Famers (  ), Others (  ).

4. Educational qualification: (a) OND/NCE (  ) (b) degree/HND (  ) (c) M.Sc./MBA/MPA (  )

(d) Ph.D. ( ) (e) Others ( ).

5. Age group: (a) 15-20years ( ) (b) 21-25 years ( ) (c) 26-30 years ( ) (d) 31 years and above ( ).

**SECTION: B**

**QUESTIONNAIRE ITEMS**

Instruction: Please tick (√) under the column in the option that suits you best.

Where: Strongly Agreed = SA; Agreed = A; Undecided = UN; Disagreed = D; Strongly disagree = SD

**SECTION I**

Items	To what extent has e-governance improved the efficiency of service delivery in the Edo State Civil Service?	Responses				
		SA	A	UN	D	SD
S/N	Questions					
1.	E-governance has reduced delays in public service processes within the Edo State Civil Service.					
2.	Digital platforms have made it easier for civil servants to respond to public inquiries.					
3.	The introduction of e-governance has minimized bureaucratic bottlenecks in service delivery.					
4.	Service delivery through e-governance is faster compared to traditional methods.					
5.	E-governance has led to overall improvement in the quality of public services in Edo State.					

**SECTION II**

Items	How does Public Perception of E-Governance Initiatives Help to Improve Service Delivery in Edo State?	Responses				
		SA	A	UN	D	SD
S/N	Questions					
1.	Positive public perception of e-governance encourages greater usage of online platforms for services.					
2.	Feedback from citizens about e-governance initiatives leads to service improvement.					
3.	The government considers public opinion in enhancing digital service delivery.					
4.	Trust in e-governance systems motivates civil servants to be more accountable.					
5.	Public confidence in digital governance affects how efficiently services are delivered.					

### SECTION III

Items	How does Public Perception of E-Governance Initiatives Help to Improve Service Delivery in Edo State?	Responses				
S/N	Questions	SA	A	UN	D	SD
1.	ICT tools have improved record-keeping and data accuracy in the civil service.					
2.	Online tracking of government services has increased transparency.					
3.	The use of ICT tools has reduced corrupt practices in public service delivery.					
4.	Adoption of ICT promotes accountability among public officers.					
5.	ICT has made it easier for the public to monitor government activities.					

### SECTION IV

Items	What are the Major Challenges Hindering the Effective Implementation of e-governance in Edo State's public sector?	Responses				
S/N	Questions	SA	A	UN	D	SD
1.	Inadequate funding limits the full implementation of e-governance initiatives.					
2.	Poor internet connectivity affects the efficiency of e-governance platforms.					
3.	Lack of technical expertise among civil servants hinders the use of e-governance tools.					
4.	Resistance to change by some public officials slows down e-governance progress.					
5.	Security concerns (e.g., data breaches) pose a threat to the adoption of e-governance.					