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Technology Initiative and the Performance of the Public Sector in Abuja, Nigeria

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ABSTRACT

Federal government of Nigeria is revolutionizing its public service by introducing e-governance in its operations. This study therefore examined the effect of this new technology on the performance of the public sector in the Federal Capital Territory, Abuja. Specifically, the study determined the effect of e-governance on improved service delivery in public sector organizations in Abuja; investigated the effect of e-governance on improved transparency and accountability in public sector organizations in Abuja; and examined the challenges facing e-governance operations in public sector organizations in Abuja. Three research questions and three hypotheses guided the study. It was quantitative field survey research that made use of questionnaires. The study had a population of 1002 drawn from four public sector organizations in Abuja that have embraced e-governance in its operations. With Freud and Williams's statistical sampling formula, this huge population was reduced to a researchable sampling size of 347. Independent t-test tool was used in the testing of the hypotheses leading to the findings. The study found that e-governance operations have a positive significant effect on service delivery and transparency and accountability in public sector organizations in Abuja. The study also found that challenges such as low digital literacy and infrastructure deficit inhibit e-governance operations in public sector organizations in Abuja. As a way out of this, the study recommended for a robust investment in ICT infrastructure by the government to expand its ICT infrastructure. It called also for capacity building of public servants so they can efficiently use e-governance tools and improve their service delivery functions more.

Keywords: Technology, E-governance, Performance, Public Sector, Service Delivery, Transparency, Accountability

INTRODUCTION

Over the past many decades there are dramatic changes within the forms of technologies offered to businesses whether public or private. The speedy development and diffusion of recent data technologies such as computers, communications and networks has altered the production process in several workplaces [1]. Productivity has increased in workplaces where computer usage is applied. In recent years, the global economy has witnessed rapid advancement in technology, revolutionizing various sectors and transforming the way governments operate. Technological advancement supports public organizations in providing higher-quality public goods and services at lower average prices [2]. Though the author asserts the existence of a large body of literature that has examined the factors that influence technology adoption and diffusion, it is far less clear whether technological advancements can enhance the outputs and efficiency of the public sector. On the contrary, [3], opined that technology poses the most risk when it is merely added on top of overburdened personnel and procedures because there is no provision for evaluation and recalibration to make sure technology is operating as intended. The size, resource capability, mission, political and social backdrop of the public sector vary greatly, which has an impact on whether and how technology is adopted. Before independence, the Nigerian public service was founded as a means of enforcing the British colonial masters' administrative system. Also, it has evolved into a vast and intricate system for utilizing the nation's resources to promote economic development [4]. Therefore, policymakers and stakeholders in both the public and private sectors have emphasized the need for employee talent, and skills development, to deal with the mounting demands brought on by economic and technological change. Over time, the public sector plays a

critical role in Nigeria's socio-economic development, encompassing government agencies, institutions, and services responsible for delivering essential public goods and services to its citizens. It is worthy of note that, the effectiveness of the sector has been constrained and daunted with challenges such as shortfall in revenue, bureaucratic red tape, corruption, inefficiency, and limited access to ICT services. However, due to technological breakthroughs, advancements in technology have presented a promising solution and addressed some of these issues, hence improving the efficiency and productivity of the public sector. The performances of workers in both private and government institutions which were hitherto low have now been expected to be enhanced through increased access to Information Communication and Technology (ICT) and improved work tools. An important approach/innovation that has been adopted to improve efficiency in governance in many parts of the world is the introduction of electronic governance (e-Governance). Electronic governance (e-Governance) refers to the use of the Information and Communication Technology in public management and by extension, public service delivery [5]. It involves the use of Information Communication Technology (ICT) in conducting government's businesses [6]. [7], e-Governance include the use of Information Communication Technologies (ICTs) to carry out information exchange with the citizens, businesses and among various government arms including the judiciary, the executive and legislature. The use of e-governance among many countries of the world is premised on its perceived capabilities to facilitate efficient service delivery to the public. The primary benefits of e-Governance include efficiency and its capabilities to reduce corruption through automation. E-governance is a concept that is multi-dimensional. [8], identified some of the components of e-Governance as including e-Administration (Improving Government Processes), e-Citizen (Connecting Citizens), e-Society (Building external Interactions) and e-Applications (Government-to-Citizen or Government-to-Customer (G2C), Government-to-Business (G2B) and Government-to-Government (G2G) and Government-to-Employees (G2E). The sum total of these e-governance components would ideally shape the public experience of public service delivery in any country including Nigeria. These developments highlight Nigeria's commitment to leveraging technology to improve public sector performance. By embracing e-governance, Abuja, the federal capital of Nigeria has enhanced operational efficiency, transparency, and citizen engagement, positioning Nigeria towards sustainable development in the digital age. The specific objectives of the study were to:

- i. Determine the effect of e-governance on improved service delivery in public sector organizations in Federal Capital Territory Abuja, Nigeria.
- ii. Investigate the effect of e-governance on improved transparency and accountability in public sector organizations in Federal Capital Territory Abuja, Nigeria.
- iii. Examine the challenges facing e-governance operations in public sector organizations in Federal Capital Territory Abuja, Nigeria.

The following research questions were raised:

- i. What is the effect of e-governance on improved service delivery in public sector organizations in the Federal Capital Territory, Abuja, Nigeria?
- ii. To what extent does e-governance improve transparency and accountability in public sector organizations in the Federal Capital Territory, Abuja, Nigeria?
- iii. What are the challenges facing e-governance operations in public sector organizations in the Federal Capital Territory, Abuja, Nigeria?

The following null hypotheses were postulated:

- i. E-governance has no significant effect on improved service delivery in public sector organizations in the Federal Capital Territory, Abuja, Nigeria.
- ii. E-governance does not significantly improve transparency and accountability in public sector organizations in the Federal Capital Territory, Abuja, Nigeria.
- iii. E-governance has no significant challenges facing its operations in public sector organizations in the Federal Capital Territory, Abuja, Nigeria.

Conceptual and Literature Review

E-governance

E-governance is the application of Information and Communication Technology (ICT) to assist the government for efficient and meaningful delivery of government services. According to [8], e-governance is a wider concept that defines and assesses the impacts technologies are having on the practice and administration of governments and the relationships between public servants and the wider society, such as dealings with the elected bodies or outside groups such as not for profits organizations, non-governmental organizations or private sector corporate entities. E-governance encompasses a series of necessary steps for government agencies to develop and administer to ensure successful implementation of e-government services to the public at large (theinformationdaily.com). According to United Nation's e-government survey (2004, 2005, and 2008), in [9], e-government is the use of internet technology to exchange information, provide services and transact with citizens, business, and other arms of government. [5], defined e-Governance as the rapidly emerging global phenomenon of the use of information and communication technology (ICT) as the new way forward in public administration. [10], defined it as the application of Information and Communication Technology (ICT) to the government processes to bring Simple, Moral, and Accountable, Responsive, and

Transparent (SMART) governance. [11], viewed e-governance (e-Government) as the use of information technology to free movement of information to overcome the physical bounds of traditional paper and physical based systems to the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees. According to [6], e-governance, which also means electronic governance generally, refers to the use of information and communication technology (ICT) in order to provide different government services. It enables the exchange of different kinds of communication besides ensuring effective communication of different kinds of transactions. At the same time, it enables the integration of different stand-alone systems and services between the government and the customers and government and businesses [12]. E-governance refers to the usage of information communication technologies for carrying out different public services [13]. This mainly refers to the application of the internet so as to make sure that different kinds of services are offered in a manner that is convenient, cost effective and customer oriented. E-governance also refers to the adoption of IT for enhancing working of the government. It is mainly aimed at the achievement of moral, simple, responsive, accountable and transparent governance [14], [13]. According to [12], E-governance is a major tool, which is being adopted in order to ensure that there is a highly effective and efficient public service delivery.

Benefits /Obstacles of Electronic Governance in Nigeria

The changing trend in the international system has prompted many developing countries to realize the need for e-governance in its administrative processes. Most beneficial prospects of e-governance in countries, which are undergoing development processes, are increasing efficiency, enhancing transparency, and facilitating the reforms of public service.

According to [15], the proposed benefits can only be achieved if the following are put in place:

- i. Government should create a conducive atmosphere where the citizens can have an easy access to the government via electronic means of communication. This will promote a two-way flow of information and public service efficiency.
- ii. Capable institutions should be established to curb corruption at all levels of government. The institutions should also have a primary responsibility of promoting accountability among public office holders.
- iii. The principle of the rule of law should be respected irrespective of status, age, qualification or gender. As such, each individual should be given an equal opportunity to obtain information when the need arises.
- iv. Bureaucratic bottle-neck should be reduced to a minimal level and there should be inter-departmental exchange of information, while related services should be merged so as to reduce costs, time, space, and man power.

[15], asserted that the major reasons which hinder the growth of e-governance in developing countries include:

- i. A certain degree of unwillingness on the part of the government to share vital information to the public. This has consequently resulted in the implementation of policies that are not advantageous to the masses and the establishment of government websites with little or no information.
- ii. Literacy rate of Information and Communication is low. Thus, it is quite difficult to have access and manipulate through government websites to obtain information.
- iii. There is an unequal dispersion of internet services/facilities. A relatively exorbitant cost of connecting to the internet and in some cases, the speed connectivity to the internet is quite slow because of low penetration rate.
- iv. The principle of the rule of law should be respected irrespective of status, age, qualification or gender. As such, each individual should be given an equal opportunity to obtain information when the need arises.
- v. Bureaucratic bottle-neck should be reduced to a minimal level and there should be inter-departmental exchange of information, while related services should be merged so as to reduce costs, time, space, and man power.

Despite these obstacles, Nigerian government is still putting various strategies in place to foster the growth of e-governance in the nation. From online registration and record management of citizen and business to online passport application are providing services to the citizen at their door step, (this reduces the length of time that might have been spent to process the license).

Importance of E-governance in Nigeria Public Sector

Most governments have embarked on major projects with the use of modern technologies to improve and develop government activities. These technologies have improved government services to the citizens. It has facilitated the interactions within the public and private agencies by providing quick access to information transmission [16]. Scholars have identified the relevance of e-governance in a developing nation; [17], observes that e-governance can impact transformation in the public sector in three major areas such as; economic dimension, social dimension and governance dimension. The economic dimension deals with the reduction of cost of operation to better the capacity for service delivery, increase coverage and quality of service, enhance response capacity to address poverty challenges and increase avenues for revenue generation. The social benefits include job creation, education and health enhancement, improving safety and security of

lives and properties of citizens among others. To buttress these points, the following has been identified as the benefits of e-governance [18].

1. Facilitate the circulation and implementation of government programmes
2. Facilitating the flow of information from government to the citizens
3. Increase transparency and accountability which has resulted in a drastic reduction in corruption.
4. Improves efficiency by reducing bureaucratic bottlenecks experienced in government operations.
5. Sustains the security of lives and properties of citizens to a large extent.
6. Improves service delivery through the interdepartmental exchange of Information and the merging of related agencies and ministries,
7. Reduces the cost of transaction, manpower, time, and space needed for good governance
8. Strengthens government ability to deliver services and expand citizen's participation in governance.
9. Helps in achieving development especially in relation to government operations by introducing new concepts of e-governance.
10. Reduces corruption by promoting transparency, opening government data to public scrutiny, and by automating government processes, restricting discretion of officials and limiting citizens' interaction with gatekeepers to access key services.

Challenges of e-governance adoption and implementation in Nigeria Public Sector Organizations

Studies have shown experiences and challenges of e-governance in Nigeria. Some factors have been identified as limitation to e-governance in the study area namely, ICT infrastructural deficiency, management problems, change resistance attitude, and poorly skilled staff [19]. Series of challenges have been observed as regards e-governance implementation in Nigeria: the difficulty to adapt to a new pattern by public servants, the absence of qualified and trained workers, unstable electric energy supply, and absence of ICT infrastructure [20], [21], [22], [23] and [24]. According to [25], challenges of E-governance in Nigeria include:

1. Leadership and political will to execute ICT projects effectively;
2. Infrastructural deficiency e.g. epileptic electricity;
3. Inadequate access to internet services;
4. Lack of public trust on government management of data;
5. Inadequate financial support and sponsorship of ICT projects;
6. Poor remuneration for IT staff;
7. Lack of government IT regulatory policy;
8. Corruption in public sector during ICT project implementation.

Service Delivery

One important component required to improve customer satisfaction is service delivery [26]. If done correctly and properly, it helps to enhance income creation for the company and foster customer loyalty. Providing high-quality service delivery turns become a metric for gauging customer satisfaction in any service supply [26]. According to the author, a service is an action taken by a worker, employee, or business owner for a client or customer in a business or organization, or on a private basis. Since contentment differs from person to person, the author claimed that a service's character and quality are what determine whether a client is satisfied or not. According to [16], providing services is a crucial requirement for any firm. The author defines it as a procedure for providing or performing one's official duties to intended recipients in the most efficient and timely manner possible. Service delivery is a part of business or endeavour that describes the relationship between providers and clients in which the supplier supplies a service and the client either gains or losses value as a result. Therefore, recipients gain more value when services are delivered well [16]. Effective service delivery, in particular, involves performance that meets the requirements, wants, and expectations of the clients [27]. In actuality [28], contends that the establishment of public service was motivated by the provision of services. According to the author, providing services to the public is the main duty of any public administration system. The public and the service provider (government agency) have a contractual connection, according to [29]. The service provider is required under this contractual arrangement to provide the public with services that are as satisfactory as possible in terms of utility, quality, convenience, timeliness, cost, courtesy, communication, etc. [29]. [30], concludes that service delivery is the cornerstone of all government operations.

Transparency and Accountability in E-governance

Transparency and accountability are fundamental principles in e-governance, ensuring that government operations are open and citizens can hold officials accountable. E-governance leverages digital tools to provide real-time access to information, enhancing transparency by enabling citizens to monitor government activities and decision-making processes [31]. Transparency in e-governance facilitates informed public participation, as citizens are better equipped to engage in governance when they have access to accurate and timely information [32]. Accountability in e-governance is strengthened through the use of digital platforms that track and record government actions, allowing for the auditing and evaluation of these actions [33]. This digital accountability reduces the likelihood of corruption, as it creates a system of checks and balances where government officials are held responsible for their decisions and actions [34]. Thus, the integration of transparency and

accountability in e-governance not only improves trust in government but also promotes efficient and effective governance.

Theoretical Foundation of the Study Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a widely recognized theoretical framework that explains how users adopt and accept new information technologies. Proposed by Fred Davis in 1989, TAM seeks to understand and predict users' behavioral intentions towards technology adoption. The model revolves around two core tenets: **Perceived Usefulness (PU)**: Users are more likely to accept and use a technology if they perceive it as useful in enhancing their performance or productivity. **Perceived Ease of Use (PEOU)**: The easier users perceive a technology to be in terms of interaction and learning, the more likely they are to adopt it. According to TAM, these two factors directly influence users' attitudes and intentions, ultimately shaping their actual technology usage. TAM has been widely applied in various contexts and industries to assess and predict user acceptance of technology, providing valuable insights for designers, developers, and policymakers. The model has also paved the way for subsequent research and extensions, solidifying its significance in the field of technology adoption and user behavior. The Technology Acceptance Model (TAM) serves as a valuable framework for examining the impact of e-administration on performance of selected public sector organizations in Abuja Nigeria. In this context, TAM's tenets, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), become pivotal in understanding how users, including administrators and staff, accept and interact with e-administration systems. The application of TAM allows employees to gauge the perceived utility of e-administration tools in enhancing service outcomes. Assessing the perceived ease of use provides insights into the accessibility and user-friendliness of these systems, crucial factors in their successful adoption. The Technology Acceptance Model (TAM) provides a theoretical framework for understanding how technology influences the performance of the public sector, particularly in the adoption of e-governance in Nigeria's Federal Capital Territory (FCT), Abuja. TAM posits that the perceived usefulness (PU) and perceived ease of use (PEOU) of technology significantly impact individuals' acceptance and utilization of digital innovations [35]. In the context of e-governance, this model helps assess how public sector employees and citizens interact with digital platforms for improved service delivery. In Abuja, e-governance initiatives, such as the Integrated Payroll and Personnel Information System (IPPIS) and the Government Integrated Financial Management Information System (GIFMIS), aim to enhance transparency, reduce corruption, and streamline bureaucratic processes. However, their effectiveness largely depends on users' perception of their ease of use and utility. If government employees and the public find e-governance platforms cumbersome or unreliable, adoption rates may decline, reducing overall public sector efficiency. TAM also highlights external factors, such as infrastructure, digital literacy, and organizational support that influence technology adoption. For Nigeria's public sector to fully leverage e-governance, investments in ICT infrastructure, employee training, and user-friendly platforms are essential. Thus, TAM provides a relevant framework for evaluating and improving technology-driven governance in Abuja's public sector.

MATERIALS AND METHODS

This is a quantitative field survey research in which data were sourced using both primary and secondary approaches. The primary data (quantitative) were made up of 15 structured questionnaire items. The questionnaire employed a five-point Likert scale, ranging from "Strongly Agreed (SA)" to "Strongly Disagreed (SD)," with intermediate options such as "Agreed (A)," "Undecided (U)," and "Disagreed (D)." This Likert scale offers a quantifiable measure of participants' perceptions regarding the subject matter. The secondary data were published materials such as peer-reviewed journal articles, government policy documents, and internet materials. We adopted survey research method due to its suitability in eliciting data directly from the respondents. The primary data elicited from the respondents through questionnaire were further subjected to statistical analysis; presented in tables, frequencies, percentages, mean and standard deviation of the measurement items and independent sample t-test analysis in order to address the hypotheses as stipulated in this study, for ease of interpretation, understanding, and drawing of conclusion.

Participants and Area of the Study

This study focused on the Federal Capital Territory (FCT), Abuja, Nigeria's administrative and political center. Abuja hosts key government institutions, including federal ministries, agencies, and parastatals, making it an ideal location for assessing the impact of e-governance on public sector performance. Given Abuja's role as Nigeria's governance hub, evaluating e-governance implementation in this region provides valuable insights into nationwide public sector reforms. The study centers on the Federal Inland Revenue Service (FIRS), National Identity Management Commission (NIMC), Nigeria Immigration Service (NIS), and Abuja Geographic Information Systems (AGIS). The participants in the study were drawn from the employees of these selected public sector organizations in FCT. Their population is represented in the table below.

Table 1: The distribution of the population size

Institutions	Population
Federal Inland Revenue Service (FIRS)	321
National Identity Management Commission (NIMC)	230

Nigeria Immigration Service (NIS),	187
Abuja Geographic Information Systems (AGIS).	264
TOTAL	1002

Source: Human Resources Department and Nominal Roll for 2024

The researchers chose a sample size using *Freud and Williams (1986), statistical sampling formula* to obtain a sample size from a finite population of the representatives of the respondents for the study. The formula is given thus:

$$n = \frac{Z^2 Npq}{Ne^2 + Z^2 pq}$$

Where:

n	=	Sample size
N	=	Population of the study
P	=	Probability of Success /Proportion
q	=	Probability of Failure /Proportion
Z	=	Standard error of the mean given under 95% reliability
e	=	Limit of tolerable sampling error
n	=	?
N	=	1002
P	=	0.6
q	=	1-p
z	=	1.881
e	=	3%

Therefore, substituting this population figure into the above formulae using 4% (0.04) sampling error, the researcher obtained:

$$\begin{aligned}
 n &= \frac{(1.881)^2 (1002) (0.6)(0.4)}{1002 (0.04)^2 + (1.881)^2 (0.6) (0.4)} \\
 n &= \frac{3.538161 (1002) (0.24)}{1002 (0.0016) + (3.538161)(0.24)} \\
 &= \frac{850.85695728}{1.6032 + 0.84915936} \\
 &= \frac{850.85695728}{2.45235936} \\
 &= 346.94959132171 \\
 &\cong 347
 \end{aligned}$$

Therefore, the sample size for the study was 347. This study went on to adopt a stratified random sampling technique to ensure a representative selection of respondents from selected government institutions in the Federal Capital Territory (FCT), Abuja. However, 300 respondents were used for the study because they filled their questionnaires accurately. Respondents were randomly selected to ensure unbiased representation. Each institution's sample size was determined using the stratified sampling technique. The Bowley's proportional representative allocation formula was used:

$$nh = \frac{nNh}{N}$$

n	=	The total sample size
nh	=	Number of units allocated to each category
Nh	=	Number of stratum in each group
N	=	The total population under study

$$\text{Federal Inland Revenue Service (FIRS)} \quad nh = \frac{321 * 347}{1002} = \frac{111387}{1002} = 111$$

$$\text{National Identity Management Commission} \quad nh = \frac{230 * 347}{1002} = \frac{79810}{1002} = 80$$

$$\text{Nigeria Immigration Service} \quad nh = \frac{187 * 347}{1002} = \frac{64889}{1002} = 65$$

$$\text{Abuja Geographic Information Systems} \quad nh = \frac{264 * 347}{1002} = \frac{91608}{1002} = 91$$

Data Analysis and Results

Table 2: Effect of e-governance on improved service delivery in public sector organizations in Abuja.

s/ n	Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	FREQ	Mean	Decision
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1	E-governance enhanced service delivery through automation of processes.	160	115	5	10	10	300	4.3	Accepted
2	E-governance reduced cost of governance bringing about improved service delivery.	140	120	20	10	10	300	4.2	Accepted
3	E-governance through online platforms increased citizens' participation in governance ensuring improved service delivery.	130	100	10	40	20	300	3.9	Accepted
4	E-governance ensured citizens reach to many government programmes ensuring improved service delivery.	140	100	10	25	25	300	4.0	Accepted
5	E-governance brought about usage of technology to perform tasks that improve service delivery of public organizations.	110	140	10	20	20	300	4.2	Accepted
	Grand Mean							4.1	

Source: Field Survey, 2025

Table 2 displays the responses to the question on effect of e-governance on improved service delivery in public sector organizations in Abuja. The respondents strongly agreed with all of the issues from 1 to 5, with mean scores of 4.3, 4.2, 3.9, 4.0, and 4.2, respectively. The grand mean score of 4.1 indicates that the respondents felt that e-governance improved service delivery in public sector organizations in Abuja.

Table 3: Effect of e-governance on improvement of transparency and accountability in public sector organizations in Abuja.

s/n	Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	FRE Q	Mean	Decision
1	E-governance facilitates a more transparent financial management information system.	120	110	20	20	30	300	3.9	Accepted
2	E-governance ensures accountability in financial management in public sector organizations.	120	120	20	20	10	300	3.9	Accepted
3	E-governance brings about improvement in accounting processes in public sector organizations.	110	100	30	30	30	300	3.5	Accepted
4	E-governance ensures automation of government's financial processes bringing about accountability and transparency.	100	110	20	30	40	300	3.6	Accepted
5	E-governance brings about expenditure tracking in public sector organizations ensuring transparency and accountability.	120	109	11	40	20	300	3.9	Accepted
	Grand Mean							3.8	

Source: Field Survey, 2025

Table 3 shows that all of the respondents were positive in their comments. All of the items 1–5 were accepted by the respondents, with mean scores of 3.9, 3.9, 3.5, 3.6, and 3.9. The grand mean score of 3.8 indicates that the respondents accepted that e-governance improved transparency and accountability in public sector organizations in Abuja.

Table 4: Challenges facing e-governance operations in public sector organizations in Abuja

s/n	Item	SA (5)	A (4)	U (3)	D (2)	SD (1)	FR EQ	Me an	Decisio n
1	Infrastructure deficit is a challenge of e-governance operations in public sector organizations in Abuja.	123	97	20	30	30	300	3.8	Accepted
2	Low digital literacy is a major challenge to e-governance operations in public sector organizations in Abuja.	111	108	10	51	20	300	3.7	Accepted
3	Corruption is a challenge of e-governance affecting its operations in public sector	106	112	15	37	30	300	3.7	Accepted

	organizations in Abuja.								
4	Cyber security concern is a challenge to e-governance operations in public sector organizations in Abuja.	99	116	10	43	22	300	3.6	Accepted
5	Resistance to change by employees is a challenge to e-governance operations in public sector organizations in Abuja.	120	100	10	50	20	300	3.8	Accepted
	Grand Mean							3.7	

Source: Field Survey, 2025

Table 4 shows respondents responses on the challenges of e-governance operations in public sector organizations in Abuja. Based on the responses, it can be seen that the respondent affirmed all of the items from 1 to 5, with mean scores of 3.8, 3.7, 3.6, and 3.8, respectively. The grand mean of 3.7 indicates that the respondents overwhelmingly agreed with the items posed.

Test of Hypotheses

The research hypotheses were put to the test to see if they were true or not. However, each hypothesis was evaluated independently to determine its significance in light of the data acquired and analyzed in this study. The t-test was used to test the hypotheses.

Test of Hypothesis One

- i. E-governance has no significant effect on improved service delivery in public sector organizations in Abuja.

Table 5: E-governance and Improved Service Delivery

Null hypothesis (Ho)	Tcal	Ttab	Df	Decision
E-governance enhanced service delivery through automation of processes.	7.39	2.776	4	Reject Ho and Accept Hi

Source: Field Survey 2025

Decision Rule: The decision rule in this case is to reject Ho if t-calculated exceeds T-table ($t\text{-cal} > t\text{-tab}$). As a result, the t-calculated is 7.39, while the t-table is 2.776 in the above table. This demonstrates that there is a significant effect of e-governance on service delivery in public sector organizations in Abuja. As a result, the null hypothesis (Ho) is discarded, whereas the alternative hypothesis (H1) is accepted.

Hypothesis Two

- i. E-governance does not significantly improve transparency and accountability in public sector organizations in Abuja.

Table 6: E-governance and Improvement of Transparency and Accountability.

Null hypothesis (Ho)	Tcal	Ttab	Df	Decision
E-governance ensures automation of government's financial processes bringing about accountability and transparency.	6.93	2.776	4	Reject Ho and Accept Hi

Source: Field Survey 2025

Decision Rule: The decision rule is that if T-calculated is more than T-table ($t\text{-cal} > t\text{-tab}$), Ho is rejected. As a result, the t-calculated is 6.93, while the t-table is 2.776 in the preceding table. This establishes that e-governance improved transparency and accountability in public sector organizations in the federal capital territory. As a result, the null hypothesis (Ho) is discarded, whereas the alternative hypothesis (H1) is accepted.

Hypothesis Three

- i. E-government has no significant challenges facing its operations in public sector organizations in Abuja.

Table 7: Challenges Inhibiting E-governance Operations

Null hypothesis (Ho)	Tcal	Ttab	Df	Decision
Low digital literacy is a major challenge to e-governance operations in public sector organizations in Abuja.	11.20	2.776	4	Reject Ho and Accept Hi

Source: Field Survey 2025

Decision Rule: The decision rule is that if T-calculated is more than T-table ($t\text{-cal} > t\text{-tab}$), Ho is rejected. As a result, the t-calculated is 11.20, while the t-table is 2.776 in the preceding table. This proves that e-governance has challenges inhibiting its operations in public sector organizations in Abuja. As a result, the null hypothesis (Ho) is discarded, whereas the alternative hypothesis (H1) is accepted.

Discussion of Findings

E-governance refers to the use of digital technologies by government bodies to enhance public administration and deliver services more efficiently. Government has rolled out various e-governance initiatives such as Treasury Single Account (TSA), Integrated Payroll and Personnel Information System (IPPIS), and the Government Integrated Financial Management Information System (GIFMIS) and other automated services domiciled in various public sector organizations. The aim of these initiatives is for government to reform governance processes to ensure improved service delivery and enthrone transparency and accountability. This study investigated the effect of e-governance on service delivery and the extent it improved transparency and accountability in public sector organizations in the Federal Capital Territory, Abuja Nigeria. It was discovered that e-governance improved service delivery in federal public service in Abuja. In National Identity Management Commission (NIMC), there has been a massive success in its programmes such as National Identification Number (NIN) enrollment which enables citizens to access a range of government services online while enabling government to have citizens' data. The same successes were recorded at Abuja Geographical Information Systems (AGIS) which handles land matters like registration and issuance of Certificate of Occupancy (C of O) online. In Federal Inland Revenue Service (FIRS), services improved through e-governance adoption. Citizens and businesses can pay their taxes through the agency's portal online thereby improving the ease of doing business. In Corporate Affairs Commission, e-registration system is used and it had made it easier for businesses to register and access services without delays. In Nigeria Immigration Service (NIS), e-passport has replaced manual issuance of passport. Citizens get their passports within a month by filling forms online in NIS portal. The era of citizens physically invading NIS offices across the country in bids to acquire their international passports is over. Through e-governance, services have improved tremendously in public sector organizations in Nigeria. E-governance also improved transparency and accountability in federal public service. Using the Treasury Single Account (TSA) as a case study, this e-governance initiative introduced in 2015 is a unified structure of government bank accounts that enables the consolidation of all government revenues, receipts, and payments into a single account at the Central Bank of Nigeria. This initiative has significantly reduced leakages in public finance and controlled corruption by public officers enthroning transparency and accountability. However, some challenges are still evident curbing e-governance operations in Nigeria's public service. The most fundamental challenges are infrastructure deficit and low digital literacy. ICT infrastructure is inadequate in Nigeria public sector. Perhaps government is still struggling with funds to acquire adequate infrastructure that will guarantee top- notch e-governance operations. There is also limited access to broadband internet and high cost of ICT services that limits citizens from participating in governance. Again, there is frequent power outages that hinder seamless implementation of e-governance by public sector organizations. Digital literacy and resistance to change are other identified challenges of e-governance operations in Nigeria's public service. A significant number of public officials lack necessary digital skills to deliver e-government services. Surprisingly, introduction of e-governance operations in Nigeria's public sector has met resistance from government employees who fear that digitalization could lead to job losses or reduced relevance. All these challenges have slowed down the adoption of e-governance but have not however stopped its operations in government agencies.

CONCLUSION

E-governance is desirable in government if public administration is to deliver services more efficiently. In line with this guideline, federal government of Nigeria has initiated e-governance operations in all its public sector organizations in its administrative capital of Abuja. Public sectors like Federal Inland Revenue Service (FIRS), National Identity Management Commission (NIMC), Nigeria Immigration Service (NIS), Abuja Geographic Information Systems (AGIS), and numerous others have adopted e-governance operations using it to reform their internal processes and bringing about automation of virtually all their services. By leveraging information and communication technologies (ICTs), e-governance has significantly improved service delivery and improved transparency facilitating real-time access to information and services. This has fostered accountability and reduced opportunities for corruption. There are evident challenges slowing down e-governance operations but all hand are on deck by both the government and committed public servants to overcome these challenges and reposition Nigeria's public service.

RECOMMENDATIONS

- (i) Improving ICT infrastructure: To unlock the full potential of e-governance, Nigeria must invest more in expanding its ICT infrastructure. This includes improving broadband access, and ensuring consistent power supply. Government can collaborate with private sector to bridge the digital divide and secure broadband access through public-private partnerships (PPPs) and investment in renewable energy sources to address power issues.
- (ii) Digital Literacy through Capacity Building: Capacity building of both public sector workers and the general public is essential if e-governance is to be a success. Investment in digital literacy programs that will as priority target civil servants is needed so they can efficiently use e-governance tools and improve their service delivery. Similarly, outreach programs should be designed to educate citizens on how to access digital services and benefit from it.

- (iii) Legislative Support: Legislative backing is necessary to guide the implementation of e-governance operations in Nigeria. Government should update existing laws to reflect the realities of digital governance. They should also upgrade their regulation policies to further strengthen digital practices in the country.

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