

E-GOVERNANCE, GOVERNANCE QUALITY, AND PUBLIC SERVICE DELIVERY IN NIGERIA: AN EMPIRICAL ANALYSIS, 2015-2024

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ABSTRACT

This study researched and analysed the impact of Governance quality and Information and Communication Technology (ICT) adoption on Public Service delivery. The study investigated whether Control of Corruption, Regulatory Quality, and ICT adoption affect Public Service delivery, proxied by Government effectiveness in Nigeria from 2015-20 24. The study followed an ex-post facto research design. It used yearly secondary data obtained from the World Bank's Worldwide Governance Indicator (WGI) and World Development Indicator (WDI). Descriptive Statistics and Ordinary Least Squares Regression analysis were performed using EViews 12. The study results show that Control of Corruption ($\beta = 0.80$, $t = 0.85786$, $p = 0.1603$) and Regulatory Quality ($\beta = 0.27$, $t = 1.024646$, $p = 0.2469$) have a positive relationship but an insignificant effect on Public Service delivery. ICT adoption had a $\beta = -0.007$, $t = -1.764125$, $p = 0.0806$ negative and not significant effect on Public Service delivery. Governance quality and ICT adoption explained 65.3% variation in public service delivery, while the regression model was statistically insignificant at the 5% level (Prob. $F=0.078435$). The study concludes that improvement in Governance quality and ICT adoption may lead to an increase in public service delivery in Nigeria, though there is no statistically significant evidence of its effect from 2015-20 24. The study recommends capacity building for the country's anti-corruption institutions and Agencies saddled with regulatory responsibilities to harness corruption; government agencies saddled with improving regulatory responsibility for increased efficiency; investments should be channelled towards ICT Infrastructure development, and digital capacity should be improved upon for efficient use and Public Service delivery in Nigeria.

KEYWORDS: accountability; e-governance; ICT adoption; public service delivery; transparency

1. INTRODUCTION

Information and Communication Technologies (ICTs) present an opportunity for governments to improve how they conduct public administration. Transparently, efficiently, accountably and ultimately provide better services to citizens. With this mindset, governments around the world have taken up e-governance initiatives as an ideal policy option to modernize government using digital technologies to automate government activities and processes as well as deliver services to citizens (United Nations, 2022). E-governance promotes government initiatives that simplifies how we communicate and exchange information digitally to increase institutional effectiveness and responsiveness to citizens through online public services. Institutional capacity, limited ICT infrastructure, bureaucratic processes, and digital literacy are limitations that constrain the success of digital governments in most developing countries (Bwalya & Mutula, 2014). Because of this, digitalization of government services does not translate to improved service delivery. The delivery of public services in Nigeria has been historically characterized by red tape, low accountability to citizens, corruption, and poor administrative efficiency. In response, the government launched multiple initiatives to help curb these challenges. Government interventions such as digitalizing financial management (e-payment and automation of payments), digital tax administration, online procurement, and other digital-enabled public sector reforms have been launched to help reduce

corruption and improve transparency, accountability, and service delivery (World Bank, 2020). Still, it is uncertain if digitizing government reforms has yielded government that works for its citizens. Existing literature on e-governance and public service delivery performance in Nigeria has focused on cross-sectional government institutions and reforms but lack empirical evidence on how governance and ICT adoption affect service delivery within the same period using nationally comparable governance indicators. This study will help fill that gap by providing estimates on how Control of corruption, Regulatory quality, and ICT affect service delivery in Nigeria from 2015-2024. Results from our study will help expand the growing body of knowledge on e-governance and serve as empirical evidence on which policies governments should prioritize in order to improve governance and service delivery.

2. LITERATURE REVIEW AND HYPOTHESES FORMULATION

2.1 Conceptual Review

E- Governance

E-governance is defined as the use of Information and Communication Technologies (ICTs) by governments to improve transparency, accountability and service delivery in public administration (United Nations, 2022). Governments leverage on digital platforms for interagency collaborations and information exchange through ICTs in electronic communication, e-services, information portals and sharing systems among agencies of government, businesses and citizens. E-governance reforms being implemented by governments include electronic payment platforms, online procurement, digital identity management systems and electronic tax administration systems. Governments that embrace technology and reforms tend to improve institutional performance through better service delivery, accountability and organizational efficiency (World Bank, 2020). Thus, e-governance can strengthen institutions by improving their efficiency and accountability. In Nigeria, deployment of ICTs in governance processes has been implemented to reduce bureaucracy, improve accountability and service delivery to citizens. Despite efforts made by Nigeria towards improving digital government services, poor ICT infrastructure, poor electricity supply, low digital literacy levels, cybersecurity threats and inadequate funding hinder the widespread implementation of e-governance reforms in Nigeria.

Public Service Delivery

Public service delivery can be defined as processes through which public institutions provide public goods and services to citizens promptly, effectively, efficiently and transparently. Public services include healthcare services, education services, security services, transportation services, tax services, among others. Provision of public services is used to measure good governance by the Organisation for Economic Co-operation and Development (OECD, 2021) because the process ensures accountability and accessibility to needed services by citizens while promoting transparency in the use of public resources by the Government. Accessibility to public services depends on quality governance and efficient institutions backed by the use of digital technologies to improve service delivery. Public Service Delivery is proxied by Government Effectiveness in this study. Government effectiveness is one of the Worldwide Governance Indicators (WGI) provided by World Bank that assesses the ability of governments to provide quality public services, quality of civil services as well as the credibility of government policies, and it's widely used as a proxy for public service delivery because it captures quality of public service (Kaufmann et al., 2010; World Bank, 2020).

Governance Quality

Governance quality can be defined as the processes that assess the ability of government institutions and public policies to promote accountability and transparency to citizens, Regulatory quality, efficient public administration, and adherence to rule of law. World Bank measures quality of governance using six different WGI indicators, which include Government effectiveness, Regulatory quality, Rule of law, Voice

and Accountability, Political Stability and absence of violence and Control of corruption (Kaufmann et al., 2010). Control of corruption and Regulatory quality have been used for this study. Control of corruption measures the ability of Government institutions to perform their duties with little or no corruption, while Regulatory quality measures the ability of Governments to implement and create policies that will bring an effective governing system. Good governance improves institutions when there are improvements in control of corruption and Regulatory quality, which in-turn increases accountability in Government and improves service delivery to citizens.

ICT Adoption

ICT adoption has been defined as using ICTs such as the internet and electronic communication systems to improve productivity and service delivery by governments. Governments adopt ICTs to drive public service delivery through Information sharing, digitization of Government processes, automated administrative systems and launching of online portals that will make Government services accessible to citizens. According to the United Nations (2022), ICTs drive Digital Government by improving Transparency, accountability, and citizen engagement with Governments through use of technology. In Nigeria, Governments have leveraged technology by deploying ICTs in running Government agencies by introducing electronic taxation system, online Government procurement, introducing digital payment platforms and switching to digitized administrative systems. However, poor ICT infrastructure, inconsistent internet data coverage, poor power supply, cybercrime threats and low digital literacy levels are issues facing ICT adoption in Nigeria. ICT adoption is measured by the percentage of Individuals using the internet (% of population) captured in World Development Indicators (WDI). This proxy accounts for digital connectivity by measuring citizens able to access Government online services.

2.2 Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM) and the New Public Management (NPM) theory. These theories provide the theoretical foundation for explaining how e-governance initiatives influence public service delivery in Nigeria. Technology Acceptance Model was proposed by Davis (1989) as a theory that addresses concerns about why individuals accept and use technological systems. The theory posits that perceptions of usefulness and perceptions of ease of use determine user acceptance of technology. Simply, users will accept and have the willingness to use digital technology when they realize the systems are useful and easy to use. This theory explains the adoption and use of e-governance technologies by public officials in Nigeria's public sector. Willingness to use digital systems would enhance performance through efficient operations thereby improving public service delivery to the citizens. ICT adoption in this study is used to measure the technological component of e-governance in this study. Technology Acceptance Model posits that if public officials find ICT useful in their line of duty and are convinced that its use is easy, they are likely to accept and effectively use it. Effective use of ICT improves ICT adoption capability, which in turn increases efficiency, sharing of information, transparency and service delivery. Also, increasing the use of digital technologies improves governance capability (greater accountability and regulation. Hence, TAM was used as the theoretical lens for testing how ICT adoption leads to better service delivery in Nigeria. The New Public Management theory's main focus is on efficiency, accountability, transparency, performance measurement, and customer-focused service delivery by the public sector. It advocates for the incorporation of private-sector managerial principles in public institutions with the aim of improving governance and institutional performance. The establishment of e-governance reforms by the Nigerian government portrays new public management theory as Nigeria tries to reduce bureaucratic bottlenecks, promote accountability, transparency, and efficiency in government institutions.

The New Public Management theory further supports this study by emphasizing efficiency, accountability, transparency, and performance improvement in public sector administration. Furthermore, drawing from theory, New Public Management buttresses this study because its goal is efficiency, accountability,

transparency, as well as improvement of performance in public administration. This means efficient control of corruption and strong regulatory quality dimensions of governance will lead to better accountability in institutions, leading to better implementation of rules and regulations, which will cause improvement in administrative performance. This will enable this study to provide explanatory theories on governance for good public service delivery by linking quality of governance in Nigeria to improved performance.

2.3 EMPIRICAL REVIEW

2.3.1 Control of Corruption and Public Service Delivery

Control of Corruption measures the extent to which public power is used for private benefit, including petit and grand corruption as well as capture of the state by elites and private interests (Kaufmann et al., 2010). Control of Corruption is considered one of the crucial measures of quality governance because if corruption is controlled, transparency, accountability, and proper utilization of resources will likely be guaranteed and as a result, governments will likely deliver quality service to the people. Corruption control, if well practiced, will limit government officials' ability to engage in corrupt activities through transparency, automation of processes, and improvement of institutions that will foster accountability. As a result, when control of corruption is strong, countries will likely deliver quality service to their people. Kaufmann et al. (2010) observed that countries with strong control of corruption have better government effectiveness and strong institutional indicators. Mungiu-Pippidi (2015) posited that countries with working anti-corruption systems record better accountability levels and will likely enhance the quality-of-service delivery to the people. Employing the World Bank's Worldwide Governance Indicators dataset, the World Bank (2020) also confirmed that countries with strong control of corruption record better government effectiveness and accountability. Kaufmann and Kraay (2024) later discovered that countries with strong governance qualities are more likely to deliver quality service to their people than their counterparts. Thus, this study expects that control of corruption will positively affect service delivery in Nigeria.

Hence, the study hypothesizes thus:

H01: Control of Corruption has no significant effect on public service delivery in Nigeria.

2.3.2 Regulatory Quality and Public Service Delivery

Regulatory Quality captures perceptions of the ability of government to formulate and implement policies and regulations that permit and promote private sector development (World Bank, 2020). Regulatory Quality is one of the six indicators under Worldwide Governance Indicators. It captures the ability of the government policy environment to promote effective public administration through strong regulatory institutions. Application of e-governance could be supported when a country has strong regulatory quality since it provides clear policy direction that promotes institutional coordination, accountability, and transparency needed for effective implementation of e-governance reforms. Poor regulatory quality undermines policy implementation and administration because of inconsistent policies, bureaucratic bottlenecks, and ineffective public service delivery. Findings by Kaufmann, Kraay and Mastruzzi (2010) established that countries with high-quality governance indicators generally score well on institutional rule and government effectiveness. The World Bank (2020) reported that improved Regulatory Quality promotes transparency and accountability, resulting in effective delivery of public services. Kaufmann and Kraay (2024) found that countries with strong Regulatory Quality promote strong implementation of Policies and reforms, resulting in improved public sector performance. This study expects Regulatory Quality to improve public service delivery in Nigeria based on the reviewed literature.

Hence, the study hypothesizes thus:

H02: Regulatory Quality has no significant effect on public service delivery in Nigeria.

2.3.3 ICT Adoption and Public Service Delivery

Information and Communication Technology (ICT) Adoption assesses the level of ICT use in maximizing government operation and efficiency in the delivery of government services. This study used internet usage

measured by the percentage of individuals using the internet as a proxy for ICT adoption. High internet penetration allows government institutions to enhance e-government services such as improved government communication, information sharing, administration, and citizens' access to government services. According to the United Nations (2022), ICT infrastructure that works efficiently promotes transparency, accountability, citizen engagement, and accessibility of government services. Nigeria has adopted ICT in propelling e-government activities such as an electronic tax system, online procurement, a digital document management system, and other internet-enabled public services. However, infrastructural challenges, epileptic power supply, poor internet connectivity, inadequate funds, cybersecurity, and poor digital literacy have remained a bane to the optimal adoption of ICT use in public institutions. Previous studies showed that ICT adoption efficiency has a direct impact on public sector performance. Jonathan (2021) opined that ICT promotes operational efficiency and effectiveness in service delivery among Nigerian public organizations. Azeta et al. (2021) stated that e-government increases transparency, productivity, and administrative effectiveness in government agencies. In addition, Adetomiwa and Gberevbie (2022) posited, based on the Technology Acceptance Model (TAM) that employees' usage of digital devices improved organizational performance and service delivery.

Hence, the study hypothesizes thus:

H03: ICT adoption does not significantly affect public service delivery in Nigeria.

3. METHODOLOGY

3.1 Research Design

An ex-post facto research design was adopted for this study. Secondary data were used to determine the effect of good governance and ICT adoption on public service delivery in Nigeria. The study used an ex-post facto design because annual data required for the study were secondary data, while none of the study variables were manipulated. Secondary data for this study were sourced from World Bank Worldwide Governance Indicators (WGI) and World Development Indicators (WDI) for years 2015 to 2024.

3.2 Population of the Study and Sampling Technique

Annual data on governance indicators and development indicators for Nigeria sourced from World Bank's Worldwide Governance Indicators (WGI) and World Development Indicators (WDI) for years 2015 to 2024 constituted the population of this study. This study employed census as the sampling technique because all available annual data during the study period were sourced. The years 2015 to 2024 were selected because Nigeria has continuously implemented policies targeted at digitizing governance and encouraging ICT adoption in public administration during the period.

3.3 Sources of Data Collection

Secondary data for governance indicators and development indicators were obtained from World Bank websites of Worldwide Governance Indicators (WGI) and World Development Indicators (WDI) respectively. Government Effectiveness as the proxy variable in this study to represent public service delivery together with Control of Corruption and Regulatory Quality were obtained from database of Worldwide Governance Indicators. ICT adoption as the percentage of Individuals Using the Internet (% of population) were obtained from World Development Indicators database.

3.4 Model Specification

The model for the study adopted from other empirical models that tested relationship between governance quality, ICT adoption and quality of public service delivery. The functional form of the relationship between variables is presented as:

$$PSDt = \beta_0 + \beta_1 CCt + \beta_2 RQt + \beta_3 ICTt + \mu t$$

Where:

- **PSD** = Public Service Delivery (proxied by Government Effectiveness Index)
- **CC** = Control of Corruption Index
- **RQ** = Regulatory Quality Index
- **ICT** = ICT Adoption (Individuals Using the Internet, % of population)
- β_0 = Intercept (constant term)
- β_1 – β_3 = Parameters of the explanatory variables
- μ = Stochastic error term

A priori expectation

$$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$$

This implies that improvements in control of corruption, regulatory quality, and ICT adoption are expected to exert positive effects on public service delivery in Nigeria.

3.5 Operationalization of Variables

Table 1: Operationalization and measurement of variables

S/N	Variable	Type	Measurement	Source
1	Public Service Delivery (PSD)	Dependent	Government Effectiveness Index	Worldwide Governance Indicators (WGI)
2	Control of Corruption (CC)	Independent	Control of Corruption Index	Worldwide Governance Indicators (WGI)
3	Regulatory Quality (RQ)	Independent	Regulatory Quality Index	Worldwide Governance Indicators (WGI)
4	ICT Adoption (ICT)	Independent	Individuals Using the Internet (% of population)	World Development Indicators (WDI)

Source: Researcher's Compilation (2026)

3.6 Data Analysis Technique

Statistical analysis techniques were employed. Descriptive statistics such as tables, trend analysis as well as Multiple Linear Regression analysis was conducted on secondary data to test whether Control of Corruption, Regulatory Quality and ICT adoption impacts on Public Service Delivery in Nigeria. All analyses were performed using EViews Version 12. Normality test, Multicollinearity test, correlation matrix and heteroskedasticity were performed as diagnostic tests to show that our regression estimates are valid and reliable. All significance tests were done at the 5% significance level.

Limitations

Our limitation of our study is we can only accept that annual World Bank Governance Indicators are released every year. Therefore, we only had 10 observations within our years of 2015 to 2024. This small sample size weakens our regression estimates. Therefore, we can accept our sample size because we used indicator's that have measured governance in other studies. However, we may want to expand our years in the study or use panel data with other countries in the future.

4. RESULTS AND DISCUSSION

4.1 Variables' Descriptive Statistics

These parameters used to define the variables include mean, standard deviation, skewness, and kurtosis. These measurements are calculated using the mean values of each variable.

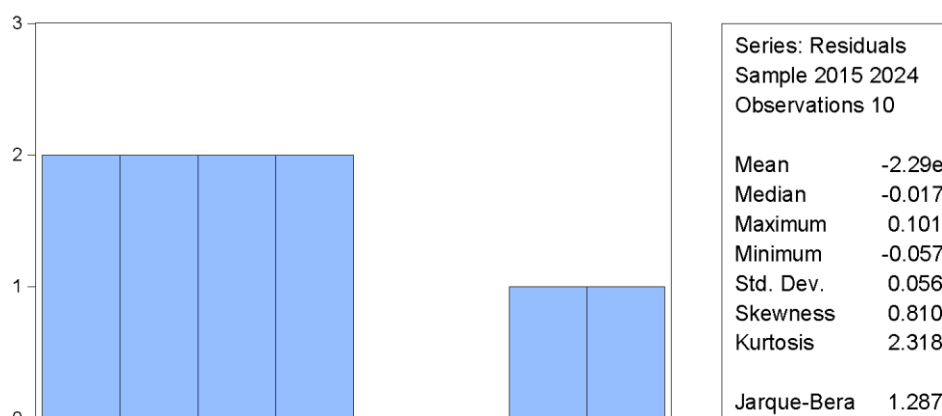
Table 2: Variables' Characteristics Statistics

Summary	PSD	RQ	ICT	CC
Mean	-0.960000	-0.820000	31.77000	-1.130000
Median	-0.950000	-0.800000	30.80000	-1.100000
Maximum	-0.800000	-0.600000	41.20000	-1.100000
Minimum	-1.100000	-1.000000	22.50000	-1.200000
Std. Dev.	0.096609	0.113529	6.880254	0.048305
Skewness	-0.093522	0.403407	0.120803	-0.872872
Kurtosis	2.102041	2.766944	1.549667	1.761905
Jarque-Bera	0.350548	0.293860	0.900766	1.908541
Probability	0.839227	0.863354	0.637384	0.385093
Sum	-9.600000	-8.200000	317.7000	-11.30000
Sum Sq. Dev.	0.084000	0.116000	426.0410	0.021000
Observations	10	10	10	10

Source: E-Views version 12 Output Extract (2026)

From Table 4.1, Public Service Delivery (PSD) means -0.960000 and its standard deviation is 0.096609, thus, indicating less variability in government service delivery throughout the period covered by this research. RQ has an average value of -0.820000 and a standard deviation of 0.113529; hence, the financial management system shows moderate variability in Nigeria. ICT usage means the highest figure at 31.77000 due to increased use of the Internet, thus, depicting high ICT penetration in the economy. However, CC means -1.130000 and shows low variability in the year under analysis. Moreover, the values of skewness and kurtosis confirm that the variables are normally distributed and appropriate for conducting regression analysis. As per Gujarati & Porter (2009), descriptive statistics help to know the characteristics of the data before conducting more analysis.

Figure 1: Chart of Histogram Normality Test



Source: E-Views version 12 Output Extract (2026)

The histogram normality test in Figure 1 shows that the model residuals are normally distributed because the Jarque-Bera probability value of 0.525348 is greater than the 0.05 significance level. Also, from the histogram above, the residuals are well distributed around the means with no serious outliers. This suggests that the regression model which evaluates the effect of RQ, CC and ICT adoption on public service delivery in Nigeria meet up the normality assumption and can be used for regression analysis. Brooks (2014) suggests that if the Jarque-Bera probability value is more than 0.05, we can conclude that the residuals are normally distributed and estimates from the model are reliable.

Table 3: Correlation Matrix of Research Variables

	PSD	CC	RQ	ICT
PSD	1.00000	0.52381	0.48626	-0.56300
CC	0.52381	1.00000	0.28365	-0.05984
RQ	0.48626	0.28365	1.00000	-0.09758
ICT	-0.56300	-0.05984	-0.09758	1.00000

Source: E-Views version 12 Output Extract (2026)

The correlation matrix indicated a positive relationship between PSD and CC ($r = 0.52381$), as well as RQ ($r = 0.48626$). Conversely, ICT demonstrated a negative correlation with PSD ($r = -0.56300$). The correlation coefficients among the independent variables remained below 0.8, suggesting that the model is unlikely to be affected by severe multicollinearity. Consequently, these variables are considered appropriate for regression analysis (Gujarati & Porter, 2009).

Table 4: Multicollinearity

Variance Inflation Factors

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
CC	0.251752	663.0925	1.088737
RQ	0.045849	64.58299	1.095267
ICT	1.15E-05	24.95670	1.010762
C	0.301416	620.7225	NA

Source: E-Views version 12 Output Extract (2026)

4.2 Regression Analysis

This study used the Ordinary Least Square (OLS) regression technique to examine the relationship between the variables. This is because it is a suitable technique for analysing the effects of independent variables on a dependent variable using time-series data.

Table 5: Regression

Dependent Variable: PSD

Method: Least Squares

Date: 05/22/26 Time: 20:18

Sample: 2015 2024

Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CC	0.803786	0.501748	1.601970	0.1603
RQ	0.274646	0.214124	1.282651	0.2469
ICT	-0.007125	0.003394	-2.099310	0.0806
C	0.399862	0.549014	0.728329	0.4938
R-squared	0.653151	Mean dependent var	-0.960000	
Adjusted R-squared	0.479726	S.D. dependent var	0.096609	
S.E. of regression	0.069684	Akaike info criterion	-2.200512	
Sum squared resid	0.029135	Schwarz criterion	-2.079478	
Log likelihood	15.00256	Hannan-Quinn criter.	-2.333286	
F-statistic	3.766197	Durbin-Watson stat	2.387773	
Prob(F-statistic)	0.078435			

Source: E-Views version 12 Output Extract (2026)

Table 5 shows the Ordinary Least Squares (OLS) Regression Result Conducted to Analyse the Effects of CC, RQ and ICT on PSD in Nigeria during the study period, 2015-2024. Control of Corruption (CC) resulted in a coefficient $\beta = 0.803786$. This means that improvement in control of corruption has a positive impact on Public Service Delivery in Nigeria during the period under study. However, its probability value $p = 0.1603$ which is > 0.05 indicates that Control of Corruption (CC) is not statistically significant. Regulatory Quality (RQ) has a coefficient $\beta = 0.274646$. This means improvement in Regulatory Quality (RQ) has a positive impact on Public Service Delivery. But again, probability value $p = 0.2469 > 0.05$ implies that Regulatory Quality (RQ) is not statistically significant in affecting PSD during period under study. ICT Adoption resulted in coefficient $\beta = -0.007125$. This implies that there is inverse relationship between ICT Adoption and Public Service Delivery during the study period. But its probability value is $p = 0.0806$ which is greater than the required significance level of 5% (0.05). Therefore, ICT adoption is not statistically significant in affecting PSD during study period. With an R-Squared of 0.653151, Control of Corruption (CC), Regulatory Quality (RQ) and Information Communication Technology (ICT) jointly explain about 65.3% of the variation in Public Service Delivery while other factors not included in the regression model account for the remaining 34.7% of the variation. Adjusted R-Squared of 0.479726 implies that after adjusting for the number of independent variables, our model explains about 48.0% of the variation in Public Service Delivery. F statistic = 3.766197 Prob (F-statistic) = 0.078435. Since probability value is greater than the benchmark level of significance of 5% (0.05), we can infer that this regression model is not statistically significant at 5% significance level. Therefore, there is not enough evidence to show that Control of Corruption (CC), Regulatory Quality (RQ) and Information Communication Technology (ICT) jointly have a significant effect on Public Service Delivery in Nigeria during study period. Durbin-Watson Statistic = 2.387773 is close to 2, therefore, we can say that there is no evidence of serious autocorrelation problem in the regression residuals which means the assumption that underlies the OLS that the residuals are independent is reasonably satisfied.

4.3 Discussion of Findings

4.3.1 Control of Corruption and Public Service Delivery Effectiveness: The study's primary goal was to establish if Control of Corruption (CC) improves public service delivery in Nigeria. According to the regression results above, CC came with a positive coefficient ($\beta=0.803786$), which means public service delivery improves as control of corruption improves. However, the probability value (0.1603) was higher than 5%, making the regression result insignificant. Thus, the Null hypothesis stating that CC does not significantly improve public service delivery in Nigeria was not rejected. Nonetheless, CC has a positive beta (β), meaning that effective corruption control and better institutions transparency may aid public service delivery. However, this study failed to find enough evidence that supports this relation between period (2015-2024).

4.3.2 Regulatory Quality and Public Service Delivery: The second hypothesis tests if Regulatory Quality influenced service delivery in Nigeria. The coefficient (β) of 0.274646 which is positive suggests Regulatory Quality when increased leads to increases in service delivery however as 0.2469 probability value is greater than the significance level of 5%. We fail to reject the null hypothesis which states Regulatory Quality does not significantly influence service delivery in Nigeria. This suggests that despite good regulations and implementation of government policies leading to good service delivery. There is insufficient statistical evidence from this study to infer Regulatory Quality significantly affected service delivery in Nigeria in the study period.

4.3.3 Relationship between ICT Adoption and Public Service Delivery: The third hypothesis was assessed to determine the relationship between ICT adoption and public service delivery in Nigeria. Regression results show a negative coefficient $\beta = -0.007125$ indicating that there is an inverse relationship between ICT adoption and public service delivery in Nigeria during the study period. However, since the probability

value of 0.0806 is greater than the 5% significant level, then this study could infer that there is no significant relationship between the two variables. Thus, this study failed to reject the null hypothesis that ICT adoption does not significantly impact public service delivery in Nigeria. The negative coefficient suggests poor implementation factors including lack of ICT infrastructure, erratic power supply, weak institutional frameworks, cybersecurity threats, and digital literacy issues may have diminished the positive impact of ICT adoption on service delivery. Therefore, increased internet use does not necessarily translate to improved public service delivery without addressing these complementary factors

5. CONCLUSION

The purpose of this study was to assess the effectiveness of e-governance, governance quality, and public service delivery in Nigeria. Yearly data were obtained from the World Bank Governance Indicators (WGI) and World Development Indicators (WDI) databases ranging from 2015-2024. The variable for public service delivery was Government Effectiveness. Both Control of Corruption and Regulatory Quality had positive coefficients, indicating that when quality of government increases there is a positive effect on public service delivery; however, these variables were insignificant at the 5% level. ICT adoption was negative but insignificant as well. Furthermore, although the regression was able to explain approximately 65.3% of public service delivery, it was also insignificant at the 5% level. Therefore, improvement on quality of government and ICT adoption can have impacts on public service delivery in Nigeria. However, this study was unable to provide statistically significant evidence of the relationship between the variables of interest during the study period. This could be due to several reasons. Some reasons could be: issues with implementation, other institutional factors and small sample of yearly observations.

RECOMMENDATIONS

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

1. Government should endeavour to enhance anti-corruption institutional strength and accountability measures as a way to promote effective control of corruption to improve performance of the public sector.
2. Government should enhance regulatory quality by way of consistency in policy formulation, effective implementation of good regulations as well as strong institutional capacity for improved public service delivery.
3. More attention should be given to the development of ICT infrastructure such as stable internet connectivity, provision of stable electricity supply, cybersecurity measures, and adoption of digital technologies supporting e-initiatives.
4. Capacity-building programmes should be intensified to improve staff expertise and knowledge on digital use thus, strengthening utilization of ICT by staff in the public sector.
5. Future research can look at extending the study period or leverage panel data for multiple countries and states for more observations.

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