BARRIERS TO THE ADOPTION OF E-GOVERNANCE IN TERTIARY INSTITUTIONS IN TARABA STATE, NIGERIA

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Abstract

E-governance has become a critical mechanism for improving transparency, accountability, and administrative efficiency in higher education. However, adoption outcomes vary widely across developing countries due to structural and institutional constraints. This study examines the barriers affecting the adoption of e-governance and their influence on administrative efficiency in selected tertiary institutions in Taraba State, Nigeria. Technology Acceptance Model and Institutional Theory were adopted, and the study employed a cross-sectional survey design. A sample size of 395 respondents (47 staff and 348 students) from a population of 33, 405 was derived using Taro Yamane's formula. To account for different population sizes of the three institutions, the study employed proportional stratified sampling. Data were collected using a validated questionnaire (Cronbach's $\alpha = 0.82$) and analyzed using descriptive statistics and linear regression at a 0.05 significance level. Results showed that poor ICT infrastructure ($M = 3.64$), unstable power supply ($M = 3.58$), weak internet connectivity ($M = 3.47$), financial constraints ($M = 3.49$), low ICT literacy ($M = 3.36$), and resistance to change ($M = 3.22$) significantly hinder the adoption of e-governance. Regression analysis confirmed that these barriers exert a significant negative effect on administrative efficiency ($\beta = -0.431$, $p < 0.001$), explaining 31.8% of the variance in efficiency outcomes. The study concludes that barriers such as poor ICT infrastructure, unstable power supply, weak internet, low ICT literacy, financial limitations, and resistance to change significantly hinder the use and implementation of e-governance tools adopted in Taraba State tertiary institutions and recommends a comprehensive barrier-mitigation strategy that simultaneously strengthens ICT infrastructure and power supply, expands internet connectivity, provides continuous Strengthening these areas is essential for improving service delivery, institutional effectiveness, and digital transformation across Nigerian higher education.

Keywords: *E-governance, Barriers, ICT adoption, Administrative efficiency, Nigeria, Tertiary Institution.*

Introduction

In the contemporary digital era, e-governance has emerged as a critical strategy for enhancing transparency, accountability, and administrative efficiency within higher education systems globally (United Nations, 2022). Through the integration of Information and Communication Technologies (ICTs), tertiary institutions are increasingly shifting from traditional bureaucratic procedures to digital administrative models that support real-time data management, reduce paperwork, and improve service delivery to staff and students (Alryalat, Rana, & Dwivedi, 2023). Evidence from both developed and emerging economies shows that effective e-

governance strengthens institutional competitiveness, minimizes administrative bottlenecks, and promotes stakeholder participation in decision-making in line with Sustainable Development Goal 16, which emphasizes strong and effective institutions (Alharbi & Drew, 2022; Alzahrani, 2021).

However, e-governance implementation outcomes differ significantly between developed and developing nations. In Sub-Saharan Africa, progress has been slow and uneven due to structural, financial, and cultural constraints (Okonkwo & Ikegwu, 2023). Although Nigeria's National Digital Economy Policy and Strategy (NDEPS) and the e-Government Master Plan provide a framework for digital transformation, adoption in many tertiary institutions, however, this effort remains fragmented and inconsistent in these institutions (Azeez & Adeoye, 2022). Manual administrative procedures continue to dominate record management, admissions, and fee processing, resulting in frequent errors, reduced transparency, and delays in service delivery (Edeh, Aja, & Nwankwo, 2022). Furthermore, infrastructural deficits, including unreliable electricity supply, weak internet connectivity, inadequate ICT hardware, and limited technical support, pose significant obstacles to sustained digital adoption (Emeana, Okeke, & Onwuka, 2023; Mutula, 2021).

The situation in Taraba State reflects these national challenges. Although institutions such as Taraba State University, Federal Polytechnic Bali, and Peacock College of Education have introduced digital platforms for e-payment, online admissions, and exam administration, but their use remains limited in scope and efficiency. These obstructions if not handled could not only hinder the smooth implementation of e-governance systems but might also compromise administrative efficiency, delay service delivery, and reduce institutional credibility. Given this background, this study therefore investigates the barriers to e-governance adoption in selected tertiary institutions in Taraba State, Nigeria, and examines the extent to which these barriers influence administrative efficiency.

Objective of the Study

This work examined the barriers to the use and implementation of e-governance tools adopted in Nigerian tertiary institutions: a lesson from Taraba State. Specifically, the paper aimed to achieve the following:

i. To examine the barriers to the adoption of e-governance and their effect on administrative efficiency in selected tertiary institutions in Taraba State, Nigeria.

Hypothesis

Based on the objective of the study, the following hypothesis was raised:

i. Barriers to the use and implementation of e-governance tools adopted have no significant effect on administrative efficiency in selected tertiary institutions in Taraba State.

Literature Review

Conceptual Clarifications on E-Governance

The concept of e-governance has seen a wide range of scholarly interpretations, and has come as a major issue in public administration worldwide-making it a central mechanism for enhancing transparency, accountability, and administrative efficiency in all institutions, education inclusive. Accordingly, scholars such as Nwoba, Nwankwo and Egba (2024) and

Williams (2023) emphasize that e-governance in tertiary education goes beyond digitizing records; it redefines administrative culture by enabling real-time access to institutional data and promoting participatory management. The concept is grounded in national frameworks such as the National Digital Economy Policy and Strategy (NDEPS) and the e-Government Master Plan, which aim to integrate ICT into public administration. Nevertheless, Nwoba, Nwokwu, and Egba's (2024), stressed further that implementation remains inconsistent, as many institutions still rely on manual documentation systems that slow administrative efficiency.

Oghuvbu, Gberevbie and Oni (2022) refer e-governance as the use of ICTs in the operations of government businesses. To simplify it in a different way, it is the shift from the traditional method of carrying out government activities, which is primarily hierarchical, linear, and one-way, to the use of the internet, which allows the citizens to seek information at their own leisure and without having to rely on the government. The key goals of e-governance, on the other hand, are to improve government operations, connect stakeholders and create external connections. In tertiary institutions, online admission systems, digital payment gateways, student information systems (SIS), learning management systems (LMS), online exam portals, and transcript management tools are just a few examples of the many digital platforms that fall under the umbrella of e-governance (Ikaka, 2025; Atique et al., 2024). These technologies reduce administrative delays, significantly reduce the need for paper-based process, and further enhance communication between organizations and their internal and external stakeholders.

Olumekor, M., Mangai, M.S., Madumo, O.S. et al. (2025) state that the use of advanced digital tools is fundamental to contemporary administrative practices, facilitating the computerization of core functions, the reorganizing of workflows, and the improvement of service delivery. Studies indicate that the adoption of integrated e-governance platforms in tertiary institutions significantly improves transparency, accountability, and decision-making (Sriyakul et al., 2022; Avotra et al., 2021). Eliminating inefficiencies in governance is the driving force behind the global push for digital transformation. Through open access to information and participatory processes, well-executed e-governance efforts have been shown to lower corruption, improve data security, and foster citizen confidence (Pedawi & Alzubi, 2022; UN, 2022). These tools improve institutional performance in the education sector by enabling instantaneous monitoring, efficient record-keeping, and quicker administrative choices (MacLean & Titah, 2022; Van den Berg et al., 2024).

According to Tejedo-Romero et al. (2022), e-governance tools encourage a more inclusive and responsive academic environment by increasing student, staff, and administrative engagement. Building capacity and enacting enabling policies are necessary for the successful deployment of e-governance. Sustaining digital improvements requires a strong institutional and legal framework that addresses accountability, data privacy, and procurement practices (NEPAD, 2022). Capacity building initiatives to raise staff and student digital literacy are equally crucial (MacLean & Titah, 2022). These programmes foster an innovative culture in governance and aid in the institutionalization of digital systems (Tejedo-Romero et al., 2022).

Despite the fact that e-governance is seen as an essential instrument for sustainable development in many developing nations, including Nigeria, however, there are still lot of obstacles to overcome, including financing limits, poor digital literacy, and infrastructure

limitations (Dhaoui, 2022; Elbahnasawy, 2021). While some African countries are making impressive strides, the area as a whole still falls short of international e-governance standards (United Nations, 2022).

Therefore, in light of the reviewed literature, this study defines e-governance as the strategic use of ICT tools to improve administrative procedures, increase transparency, and enable effective service delivery in public institutions. This involves the usage of platforms including online admission systems, digital payments, SIS, LMS, online exams, e-certification, and human resource management systems. These technologies seek to increase openness, maximize resources, and promote an administrative climate that is more efficient and responsive.

Theoretical Framework

The study hinges on Technology Acceptance Model (TAM) and Institutional Theory, which provided complementary viewpoints for comprehending the adoption and difficulties of e-governance in tertiary institutions.

The Technology Acceptance Model (TAM)

The Technology Acceptance Model, developed by Davis (1989), posits that individuals' behavioral intentions toward using technology are influence by two core perceptions: perceived usefulness and perceived ease of use. The assumption of TAM is that perceived usefulness (PU) and perceived ease of use (PEOU) have a significant impact on a person's decision to accept or utilize a technological system. (Méndez Rivera, Patiño Toro, Valencia Arias & Arango Botero, 2023). Thus, to relate the above assumption with the study, it is evident to assert that staff and students at the study institutions demonstrated differing degrees of competence, confidence, and trust in their use of digital platforms, demonstrating these presumptions. Most of the respondents stated that they were less inclined to use the platforms that were available to them because of the perceived complexity of e-governance tools, low ICT proficiency, and frequent system failures. This submission agrees with TAM's hypothesis that perceived usefulness and, eventually, technology adoption are influenced by perceived ease of use.

To support the foregoing, Rahmani and Jenabi (2020) in their study found out that users' confidence in technology, supported by adequate training and institutional encouragement, significantly influences the acceptance and sustained use of e-governance systems. Similarly, Méndez Rivera, Patiño Toro, Valencia Arias, and Arango Botero (2023) in their study also observed that staff and students are more likely to embrace digital platforms, such as e-payment systems, admission portals, and electronic record management, when they believe these tools will enhance efficiency and are easy to operate. For example, when e-payment systems reduce fraud and delays, or when online portals simplify admission processes, the perception of usefulness increases, thereby improving adoption rates.

Thus, the relevance of TAM to this study lies in its ability to explain why many digitized functions in Nigerian tertiary institutions-Taraba State to be specific, remain underutilized despite their potential to improve administrative efficiency and service delivery. The strength of TAM in this study is that it captures behavioural and attitudinal issues that affect the adoption of digital system, while its weakness, however, is that it limited ability to account for broader institutional and infrastructural barriers such as unstable powers supply, insufficient hardware

and inconsistent internet access which were found to be the major dominants in the study, contextually.

Institutional Theory

To complement TAM in this study, the Institutional Theory articulated by Meyer and Rowan (1977) and expanded by DiMaggio and Powell (1983), explains adoption not only as a rational decision for efficiency but also as a response to external pressures. The theory posits that organizations adopt innovations as a result of coercive pressures (which are government directives mandating ICT-driven reforms), normative pressures (professional standards that require institutions to modernize and adopt ICT tools), and mimetic pressures (imitation of peer institutions that are already digitizing operations) (Sarah, Rohin, & Tom, 2024). In Nigeria, for example, universities, polytechnics and colleges of education adopt e-payment platforms partly due to government policy (coercive), the professional expectation of transparent financial. These assumptions were strongly reflected across the three selected tertiary institutions, all of which adopted e-governance tools partly to meet accreditation requirements, align with national ICT directives, and demonstrate modern administrative capacity. However, barriers such as weak infrastructure and resistance to change (which is tacit or embedded corruption) often slow down the extent to which these pressures translate into full scale adoption. The significance of Institutional Theory to this study hinges on its explanatory ability regarding why institutions obtain digital systems even when their internal capability is inadequate. The strength of the theory in this study lies in its ability to provide justification for external environmental pressures that drive institutional behaviour within the institutions, while i**ts** limitation lies in its inability to fully explain whether adopted systems are used effectively or translate into improved performance within the institution.

TAM and Institutional Theory provide a dual lens for understanding the barriers to e-governance adoption. While TAM explains adoption at the individual level (based on perceived benefits and ease of use), Institutional Theory situates adoption within the broader organizational and policy environment, shaped by external pressures and legitimacy concerns. Thus, it suffices to affirm from the above submissions that the study does reveals that while all three selected institutions adopted e-governance in response to external pressures, only institutions with robust internal capacity achieved reasonable improvements. This covers Institutional Theory by showing that institutional legitimacy does not give assurance for effective functioning; but instead, internal capacity, funding, value for digital system, and leadership commitment determine whether adoption of e-governance result to actual administrative benefits.

Barriers to E-Governance Adoption in Tertiary Institutions

The adoption of e-governance in tertiary education institutions worldwide has been hindered by several persistent barriers, which can be categorized into infrastructural, financial, human capacity, and institutional resistance. These barriers, while interrelated, significantly constrain the potential benefits of digital systems in administrative efficiency, transparency, and accountability.

Infrastructural weaknesses are perhaps the most critical challenge to e-governance adoption in developing countries. Rahmani and Jenabi (2020), in their study of Iranian universities,

identified poor ICT infrastructure as one of the most significant barriers to the effective use of e-governance systems. They found that universities with limited internet bandwidth and unreliable electricity faced repeated system downtimes, undermining the effectiveness of digital platforms for admissions, fee payments, and other administrative functions. Similarly, in the Nigerian context, Edeh et al. (2022) observed that power outages, slow internet speeds, and outdated computer hardware led to frequent disruptions in digital operations at several Nigerian universities. Such infrastructural deficiencies result in delays and underperformance of e-governance platforms, ultimately frustrating both staff and students and hindering the overall efficiency of the system. These findings align with those of Ibrahim et al. (2021), who emphasize that infrastructural readiness plays a pivotal role in the success of e-governance reforms, particularly in regions with fragile infrastructure.

A second major barrier is financial constraints, which affect the capacity of institutions to implement, upgrade, and maintain e-governance systems. Debbarma (2023), in a study of Indian universities, noted that while there was policy interest in digital reforms, insufficient funding for ICT infrastructure, training, and system maintenance led to the piecemeal adoption of e-governance systems. A similar pattern is observed in Nigerian tertiary institutions, where limited budgets often prioritize salaries and operational costs over necessary capital investments in ICT. Nwoba et al. (2024) highlighted that many tertiary institutions in Nigeria operate with tight budgets that prevent them from making long-term investments in digital infrastructure. This issue is compounded by inadequate government funding, which hampers efforts to procure the latest technologies, upgrade existing systems, and invest in staff training. As Williams (2023) argues, financial investment is crucial for the sustainability of e-governance platforms. Without adequate funding, tertiary institutions cannot maintain or expand these systems, rendering them ineffective and underutilized.

Human capacity, particularly digital literacy among staff, constitutes another critical barrier to the adoption of e-governance. Agbesanya et al. (2024) conducted a study in Nigerian universities and found that low digital literacy and inadequate training was major obstacles to the successful adoption of digital systems. Even when Student Information Systems (SIS) were introduced, staff members without the necessary skills often reverted to manual processes, undermining the efficiency gains that e-governance systems are designed to offer. This finding is consistent with Oyewole and Nathan (2025), who examined the role of technological self-efficacy among lecturers in Nigerian colleges of education. They found that lecturers' confidence in using technology significantly influenced their ability to adopt digital tools for research and administration. Without adequate training programmes, many staff members remain either resistant or underutilizing digital platforms. This issue is especially prevalent among older staff, who may feel that digital systems threaten job security or expose institutional inefficiencies (Rahmani & Jenabi, 2020).

Institutional resistance to change is perhaps the most underestimated barrier to e-governance adoption. Even in cases where infrastructure and financial resources are available, universities often fail to adopt e-governance due to cultural resistance and organizational inertia. Oni (2023) posits that bureaucratic inertia in Nigerian universities contributes significantly to the slow adoption of digital systems. Agbesanya et al. (2024) argue that universities' hierarchical

structures and traditional management styles create an environment where digital reforms are met with reluctance or delayed implementation. This resistance is particularly evident among senior staff, who may perceive digitalization as a threat to their established roles or status quo. In the Nigerian context, the challenge is compounded by weak policy frameworks, lack of clear implementation strategies, and fragmented leadership across administrative departments (Edeh et al., 2022). As Ibrahim et al. (2021) noted, effective leadership and institutional buy-in are critical for overcoming these barriers and ensuring the successful implementation of e-governance systems.

Methodology

The study adopted a cross-sectional quantitative research design to examine the barriers to the adoption of e-governance and their effect on administrative efficiency in tertiary institutions in Taraba State, Nigeria. The instruments used for data was structured questionnaires titled E-Governance and Administrative Efficiency in Tertiary Institutions Questionnaire (EAETIQ**).** The target population for this study involved total of 33,405 individuals, which includes students and staff from the selected tertiary institutions. According to records obtained from the Registry Unit of Taraba State University, Jalingo, the institution had a student population of 25,161 and 2,785 staff members, totaling 27,946. Data from the Registry Unit of Federal Polytechnic, Bali, indicated 935 students and 999 staff, totaling 1,934. Similarly, records from the Registry Unit of Peacock College of Education, Jalingo, showed a student population of 3,356 and 169 staff members, totaling 3,525. These figures, as at when the study was conducted, provided a reliable basis for determining the study sample and helped ensure that the findings reflect the experiences and perceptions of a broad cross-section of the academic community. Therefore, a sample size of 395 was proportionately selected from the three selected tertiary institutions using Taro Yamane formula as shown below:

$$n = \frac{N}{1+N(e^2)}$$

Where:

n = sample size

N = total population (33,405)

e = margin of error (assumed 0.05 for 95% confidence level)

Step-by-step calculation:

$$n = \frac{33,405}{1+33,405 \times (0.05)^2} = \frac{33,405}{1+33,405 \times 0.0025} = \frac{33,405}{1+83.5125} = \frac{33,405}{84.5125} = 394.7$$

Rounding up, the sample size is approximately to be: 395.

Table 1: Proportional Allocation of Population across Selected Tertiary Institutions

The table below shows the distribution of the sample population proportionally across the three selected tertiary institutions (Students and Staff).

Selected Institution	No. of Staff	No. of Students	Total
Taraba State University	2,785	25,161	27,946
Polytechnic Bali	999	935	1,934
Peacock College of Education	169	3,356	3,525
Target Population Total	3,953	29,452	33,405

After determining the total sample size (n = 395), the study allocated the sample proportionally to each institution based on the relative size of its sub-population as shown below:

i. Taraba State University Jalingo (TSU)

Proportion for TSU = $\frac{27946}{33405} \times 395 = 330$

Therefore, from the above, it shows that 367 participants were drawn from Taraba State University.

ii. Federal Polytechnic Bali (FPB)

Proportion for FPB = $\frac{1934}{33405} \times 395 = 23$

Thus, based on the above calculation, 25 participants were drawn from Federal Polytechnic Bali.

iii. Peacock College of Education Jalingo (PCOEJ)

Proportion for PCOEJ = $\frac{3525}{33405} \times 395 = 42$

Accordingly, from the calculation above, it shows that 42 participants were drawn from Peacock College of Education Jalingo.

Summary Table: Sample Frame across Selected Institutions

Institutions	No of Students Selected	No of Staff Selected	Total
Taraba State University	297	33	330
Polytechnic Bali	11	12	23
Peacock College of Education	40	2	42
Sample Frame Total	345	47	395

This sampling approach ensured that both staff and students, as key stakeholders, were adequately represented in the data collection process. Data were collected using the E-Governance and Administrative Efficiency Questionnaire (EGAEQ), designed to measure respondents' perceptions of the barriers to e-governance adoption and their impact on administrative functions such as admissions, fee payments, result management, and staff performance evaluations. The instrument was validated through face and content validation by four experts, and the reliability was confirmed using Cronbach's Alpha, yielding a coefficient of 0.82.

For data analysis, descriptive statistics was first used to summarize the respondents' perceptions of the barriers to e-governance adoption and administrative efficiency. A decision rule of 2.50 was applied, where items with mean scores above 2.50 were considered significant, and those below 2.50 were rejected. To test the hypothesis, that barriers to the use and implementation of e-governance tools adopted do not significantly affect administrative efficiency in tertiary institutions in Taraba State, linear regression analysis was conducted at the 0.05 significance level. This statistical test allowed for the assessment of the strength and significance of the relationship between barriers and administrative efficiency.

Results

Table 2: Descriptive Statistics of Barriers to E-Governance Adoption in Tertiary Institutions in Taraba State (N=388)

Barrier	Mean	SD	Decision
Poor ICT infrastructure	3.64	0.71	Significant
Unstable power supply	3.58	0.75	Significant
Weak internet connectivity	3.47	0.79	Significant
Low ICT literacy	3.36	0.83	Significant
Financial constraints	3.49	0.77	Significant
Staff resistance to change	3.22	0.88	Significant

The descriptive statistics from the above table revealed that all the barriers were perceived as significant, with mean scores exceeding the benchmark decision rule of 2.50. The highest-rated barriers include poor ICT infrastructure (M = 3.64, SD = 0.71) and unstable power supply (M = 3.58, SD = 0.75), followed closely by financial constraints (M = 3.49, SD = 0.77) and weak internet connectivity (M = 3.47, SD = 0.79). Additionally, low ICT literacy (M = 3.36, SD = 0.83) and staff resistance to change (M = 3.22, SD = 0.88) were also found to be significant, albeit with slightly lower mean scores compared to the more structural barriers. All mean values exceeded the decision benchmark of 2.50, confirming the widespread presence of infrastructural and human-capacity limitations across the surveyed institutions. These findings reveal that the adoption of e-governance systems in the selected institutions is constrained by a combination of structural and behavioral barriers that collectively reduce the reliability, functionality, and acceptance of digital platforms.

Hypothesis: Barriers to the use and implementation of e-governance tools adopted have no significant effect on administrative efficiency in selected tertiary institutions in Taraba State.

Table 3: Linear Regression Analysis of the Effect of Barriers to E-Governance Adoption on Administrative Efficiency

Model Summary	**R**	**R^2**	**Adjusted R^2**	**Std. Error of the Estimate**		
	0.564	0.318	0.316	0.421		
ANOVA Summary	**Sum of Squares**		**df**	**Mean Square**	**F**	**Sig.**
Regression	10.845		1	10.845	76.23	0.000
Residual	23.229		387	0.060		
Total	**34.074**		**388**			
Coefficients	**Unstandardized B**		**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	3.812		0.089	-	9.21	0.000
Barriers (overall)	-0.416		0.048	-0.431	-8.73	0.000

The regression results in Table 3 reveal that barriers to e-governance adoption significantly influence administrative efficiency in the studied institutions. The Model Summary shows a moderate correlation (R = 0.564) and a coefficient of determination (R^2 = 0.318), indicating that the identified barriers explain 31.8% of the variance in administrative efficiency. The ANOVA results ($F(1, 388) = 76.23$, $p < 0.001$) confirm the model's overall significance. The negative coefficient for barriers (B = -0.416, β = -0.431, t = -8.73, $p < 0.001$) implies that

increases in barriers lead to corresponding declines in efficiency. Specifically, a one-unit increase in barriers results in a 0.416-unit decrease in administrative efficiency. This implies that infrastructural weaknesses, low ICT literacy, and institutional resistance to change collectively diminish the operational performance of tertiary institutions in Taraba State. Given that the p-value is well below the 0.05 threshold, the study therefore rejects the null hypothesis, which posits that barriers to e-governance adoption have no significant effect on administrative efficiency and accepted the alternative hypothesis; barriers to e-governance adoption have a significant and adverse effect on administrative efficiency in tertiary institutions in Taraba State. The study therefore concludes that barriers to the use and implementation of e-governance tools adopted exert a statistically significant and adverse effect on administrative efficiency in the institutions studied.

Discussion of Findings

The findings reveal that infrastructural, financial, human-capacity, and cultural barriers undermine the institutionalization of e-governance in the studied institutions. The dominance of infrastructural constraints, particularly poor ICT hardware, unreliable electricity supply, and weak internet access, aligns with the observations of Rahmani and Jenabi (2020) and Edeh et al. (2022), who found that technological readiness is foundational for successful digital governance implementation. Similarly, the results further support the Technology Acceptance Model (TAM), as disruptions to system reliability and user support reduce perceived usefulness and perceived ease of use, weakening staff and student willingness to adopt digital platforms (Méndez Rivera et al., 2023). Low ICT literacy among administrative personnel confirms that technology availability alone is insufficient without sustained capacity-building, a finding also echoed by Agbesanya et al. (2024).

The presence of organizational resistance from the findings aligns with Institutional Theory, which suggests that internal cultural norms and power structures can delay or obstruct reform even where policy directives exist (Oseni, 2023). The reluctance of senior staff to transition to digital systems due to concerns about job relevance and transparency mirrors patterns identified in other African higher education contexts (Oni, 2023; Mutula, 2021).

Conclusion

The study therefore concludes that barriers such as poor ICT infrastructure, unstable power supply, weak internet, low ICT literacy, financial limitations, and resistance to change-which is the tacit and embedded institutional corruption significantly hinder e-governance adoption in Taraba State tertiary institutions. Addressing these barriers is essential for achieving sustainable efficiency. The regression results confirmed that these barriers exert a significant and negative effect on administrative efficiency, indicating that the presence of multiple, interrelated constraints reduces the effectiveness of digital platforms in improving service delivery and governance processes. The findings support the Technology Acceptance Model, demonstrating that adoption decisions are shaped by both system reliability and user capacity, and Institutional Theory, highlighting the role of organizational norms and leadership commitment in institutionalizing digital reforms.

Recommendation

Based on the findings, the study recommends that:

Tertiary institutions in Taraba State should adopt a comprehensive barrier-mitigation strategy that simultaneously strengthens ICT infrastructure and power supply, expands internet connectivity, provides continuous ICT training for staff and students, and secures adequate funding for digital platforms. Institutional leaders and government agencies must also work together to enforce supportive policies and address resistance to change, ensuring that e-governance systems are fully integrated, sustainable, and effectively utilized across all core administrative functions.

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