



RESEARCH ARTICLE

Assessing the Impact of E-Government Initiatives on Citizen Engagement and Service Delivery in Developing Countries, with a Focus on Nigeria

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In an era of digital transformation, this study explores the profound impact of e-government initiatives on citizen engagement and public service delivery within the context of Nigeria, a developing nation. Through rigorous analysis of survey data using correlation and regression, two key findings emerged: firstly, a statistically significant positive relationship was established between awareness of e-government initiatives and increased citizen engagement in public services and decision-making processes. This underscores the pivotal role of education and outreach in fostering a transparent and inclusive democracy. Secondly, the study revealed that the implementation of e-government platforms significantly enhances the efficiency and quality of public service delivery. These findings underscore the transformative potential of digital governance, emphasizing the need for sustained investments in digital infrastructure, training programs, and regular evaluations. This study not only advances our understanding of the nexus between technology and governance but also provides actionable insights for policymakers, emphasizing the importance of informed citizenry and robust digital platforms in building a more participatory, efficient, and accountable government.

ABSTRACT



Keywords: E-Government Initiatives; Citizen Engagement; Public Service Delivery; Digital Governance; Developing Countries

Introduction

In today's digital era, e-government initiatives have gained significant attention as a means to enhance citizen engagement and improve the quality of public service delivery. With the widespread adoption of information and communication technologies (ICTs), governments worldwide have embraced e-government as a transformative tool to bridge the gap between citizens and the public sector (Muriithi et al., 2016; Roztocki et al., 2019). Developing countries, including Nigeria, have recognized the potential of e-government initiatives to address governance challenges and promote inclusive development.

E-government refers to the use of digital technologies and ICTs by governments to provide services, engage citizens, and streamline administrative processes (Mensah, 2020). It encompasses a wide range of initiatives, including online portals, mobile applications, and digital platforms that facilitate interactions between the government and its citizens. These initiatives aim to improve the accessibility, efficiency, and transparency of public services, ultimately enhancing citizen participation and trust in the government.

The implementation of e-government initiatives in developing countries holds particular significance, given the unique socio-economic context and the need to bridge the digital divide. Nigeria, as the most populous country in Africa, faces numerous governance challenges, including limited access to public services, bureaucratic inefficiencies, and low citizen participation in decision-making processes (Hamner et al., 2012). The traditional models of service delivery often suffer from issues such as corruption, long processing times, and lack of accountability. E-government initiatives offer a promising avenue to address these challenges and improve governance outcomes.

However, despite the growing interest in e-government, there remains a critical knowledge gap regarding the impact of these initiatives on citizen engagement and service delivery in developing countries like Nigeria. While the potential benefits of e-government are widely acknowledged, rigorous empirical research is needed to assess the actual effects and implications of these initiatives on governance outcomes.

Therefore, this research aims to assess the impact of e-government initiatives on citizen engagement and the quality-of-service delivery in Nigeria. By focusing on Nigeria, this study recognizes the unique context of a developing country and the need to understand how e-government initiatives can address specific governance challenges faced by its citizens. Specifically, the study seeks to achieve the following objectives:

1. To gauge the level of awareness among Nigerian citizens regarding e-government initiatives and platforms.
2. To evaluate if and how e-government initiatives have enhanced the efficiency, timeliness, and quality of public service delivery.

To guide the investigation, two hypotheses will be tested:

1. H1: Awareness of e-government initiatives is positively correlated with increased citizen engagement in public services and decision-making processes.
2. H2: The implementation of e-government platforms has led to improved efficiency and quality of public service delivery in Nigeria.

By empirically examining these objectives and hypotheses, this research aims to contribute to the existing body of knowledge on e-government impact assessment, particularly in the context of developing countries. The findings of this study will provide insights into the effectiveness of e-government initiatives in Nigeria and offer valuable recommendations for policymakers and practitioners to enhance citizen engagement and public service delivery through digital platforms.

In the subsequent sections, this paper will review relevant literature on e-government initiatives, citizen engagement, and service delivery. The methodology employed for data collection and analysis will be described, followed by a presentation of the research findings. The discussion will interpret the results and highlight their implications, while the conclusion will summarize the key findings and outline potential avenues for future research and policy interventions.

By examining the impact of e-government initiatives on citizen engagement and service delivery in Nigeria, this research seeks to contribute to the effective utilization of digital technologies for governance improvement, ultimately fostering inclusive and participatory development in the country.

Statement of the Problem

The specific problem this research aims to address is the limited understanding of the effects and implications of e-government initiatives on citizen engagement and service delivery in Enugu, Nigeria. Despite the recognition of the potential of e-government initiatives to improve governance outcomes and enhance citizen participation, there is a critical knowledge gap regarding their impact in the specific context of Enugu.

Enugu, as a city in Nigeria, faces its unique governance challenges, including limited access to public services, bureaucratic inefficiencies, and low citizen participation in decision-making processes. The traditional models of service delivery often suffer from issues such as corruption, long processing times, and a lack of accountability. E-government initiatives offer a promising avenue to address these challenges and improve governance outcomes.

However, without a comprehensive understanding of the effects and implications of e-government initiatives in Enugu, policymakers and practitioners lack the necessary insights to develop targeted interventions and strategies to enhance citizen engagement and improve the quality-of-service delivery. Therefore, it is crucial to investigate this problem specifically in Enugu to fill the knowledge gap and provide valuable insights into how e-government initiatives can address the governance challenges faced by its citizens.

By conducting empirical research and evaluating the impact of e-government initiatives in Enugu, this study aims to inform policy-making efforts, improve public service delivery, and foster inclusive development. Understanding the effects and implications of e-government initiatives on citizen engagement in Enugu will enable policymakers to tailor interventions and strategies that address the specific governance needs of the city, ultimately leading to improved governance outcomes and enhanced citizen participation.

Literature Review

Conceptual Literature

E-government initiatives have gained significant attention globally as a means to enhance citizen engagement and improve the quality of public service delivery. The literature on e-government highlights its potential to transform governance processes and improve citizen-government interactions (Twizeyimana & Andersson, 2019; Zou et al., 2023). E-government encompasses a wide range of digital technologies and platforms that enable governments to provide services, engage citizens, and streamline administrative processes (Malodia et al., 2021).

In the context of developing countries like Nigeria, e-government initiatives hold particular significance in addressing governance challenges and promoting inclusive development. Studies have emphasized the potential of e-government to improve service delivery, enhance transparency, and increase citizen participation (Chohan & Hu, 2020; Apleni & Smuts, 2020; Adnan et al., 2022). However, there is a limited understanding of the effects and implications of e-government initiatives in specific locations within developing countries.

Enugu, Nigeria, as the area of study, presents its unique governance challenges and opportunities for e-government interventions. Enugu, as a city, faces issues such as limited access to public services, bureaucratic inefficiencies, and low citizen participation in decision-making processes. E-government initiatives offer the potential to address these challenges by improving the accessibility, efficiency, and transparency of public services (Alam et al., 2023).

Scholars have emphasized the need for empirical research to assess the impact of e-government initiatives on citizen engagement and service delivery in specific contexts (Malodia et al., 2021; Adnan et al., 2022). Such research is crucial for informed policy-making and the development of effective strategies to address governance challenges. By conducting empirical research in Enugu, this study aims to contribute to the existing body of knowledge on e-government impact assessment, particularly in the context of developing countries.

In conclusion, the conceptual literature emphasizes the transformative potential of e-government initiatives in enhancing citizen engagement and improving service delivery. However, there is a limited understanding of the

effects and implications of e-government initiatives in specific locations within developing countries. This study aims to fill the knowledge gap by conducting empirical research in Enugu, Nigeria, to provide valuable insights into the impact of e-government initiatives on citizen engagement and service delivery, ultimately informing policy-making and fostering inclusive development.

Theoretical Literature

Theoretical Frameworks and Models Related to E-Government and Citizen Engagement

Several theoretical frameworks and models provide insights into the dynamics of e-government and citizen engagement, offering a foundation for understanding the relationship between these concepts. In the context of this study on the impact of e-government initiatives on citizen engagement and service delivery in Enugu, Nigeria, the following frameworks and models are relevant:

1. **Technology Acceptance Model (TAM):** The TAM, developed by Davis (1989), focuses on individuals' acceptance and adoption of technology. It posits that perceived usefulness and perceived ease of use are key determinants of technology acceptance. Applying TAM to e-government initiatives helps understand citizens' attitudes and intentions to engage with digital platforms and utilize e-government services (Xin et al., 2022).
2. **Unified Theory of Acceptance and Use of Technology (UTAUT):** UTAUT, proposed by Venkatesh et al. (2003), extends TAM by incorporating social and contextual factors. It identifies four key constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions. UTAUT provides a comprehensive framework for studying citizen engagement with e-government initiatives, considering factors such as perceived benefits, ease of use, social norms, and infrastructure support (Zeebaree et al., 2022).
3. **Digital Divide Theory:** The digital divide theory examines the disparities in access to and use of digital technologies. It recognizes that unequal access to ICT infrastructure, skills, and resources can hinder citizen engagement and exacerbate existing social and economic inequalities (Vassilakopoulou&Hustad, 2021). Applying the digital divide theory to the study helps identify potential barriers to citizen engagement with e-government initiatives, such as limited internet access or low digital literacy levels.
4. **Participation Theory:** Participation theory emphasizes the importance of citizen involvement in governance processes. It highlights the significance of citizen engagement, deliberation, and collaboration for effective public service delivery and democratic decision-making (Fung, 2006). Applying participation theory to the study helps assess the level and quality of citizen engagement facilitated by e-government initiatives in Enugu, Nigeria.

By employing these theoretical frameworks and models, this study can analyze the factors influencing citizen engagement with e-government initiatives in Enugu, Nigeria. It allows for a comprehensive understanding of the drivers and barriers to adoption, as well as the impact of digital divide and participation in shaping citizen-government interactions. These frameworks provide a theoretical lens for interpreting the empirical findings and informing policy interventions to enhance citizen engagement and improve service delivery.

Empirical Review

Naranjo-Zolotov et al. (2019) study delved into the continuous use of e-participation platforms, focusing on the role of the Sense of Virtual Community (SOVC) in citizens' engagement. Their research, encompassing 370 participants in a European capital city, employed statistical analyses to establish the association between SOVC, usage behavior, and the intent to continue using e-participation platforms. This meticulous analysis shed light on the dynamics of virtual communities, unveiling how they impact citizens' ongoing participation in governmental processes. The study's methodology, rooted in quantitative data analysis, provided crucial insights into the longevity of e-participation practices in the realm of local governance.

Adnan et al. (2022) conducted a comprehensive systematic review, spanning a decade of research, aiming to decipher the complexities of e-participation within e-government initiatives. Their robust methodology involved synthesizing data from 211 research papers using weighted analysis techniques. By identifying key predictors of user acceptance and satisfaction, such as computer self-efficacy and service quality, their study significantly contributed to the understanding of e-participation dynamics. Through meticulous literature analysis and quantitative methods, Adnan et al. provided a nuanced perspective, illuminating the essential facets that shape citizens' interactions with e-government platforms.

Tejedo-Romero et al. (2022)'s research explored the e-government landscape in Portuguese municipalities, emphasizing the impact of municipal size on e-participation mechanisms. Through a meticulous analysis of municipal information and interaction indexes, this study employed quantitative methodologies, likely involving regression analyses, to establish correlations between municipality size and the implementation of citizen participation tools. By quantifying the influence of population on information dissemination and participation mechanisms, the study offered valuable insights into the nuanced dynamics of e-participation strategies, enriching the discourse on civic engagement in diverse communities.

Apleni & Smuts (2020) delved into the challenges and opportunities of e-Government implementation in developing countries, with a particular focus on South Africa. Their in-depth case study approach involved collecting feedback from 110 managers through online questionnaires. Employing qualitative and quantitative data analyses, likely including thematic analysis and statistical tests, their research culminated in a proposed e-Government implementation framework rooted in the Diffusion of Innovation (DOI) Theory. By combining qualitative insights with quantitative findings, the study provided a comprehensive understanding of the hurdles faced and the potential solutions in the realm of e-Government implementation.

Sigwejo & Pather (2016) research centered on developing a citizen-centric framework for evaluating e-Government effectiveness, primarily in the context of developing countries. Their study, rooted in the Tanzanian case study, employed qualitative research methods, likely incorporating interviews, surveys, and content analysis. By focusing on citizen imperatives and government perspectives, the study's methodology aimed to bridge the gap between theoretical frameworks and practical implementation. Through meticulous qualitative analyses, the research provided a nuanced understanding of the factors shaping citizens' adoption and use of online public services in developing nations.

Porwol et al. (2016) embarked on the task of conceptualizing e-Participation comprehensively, culminating in the development of an e-Participation Ontology. Their research methodology involved a blend of conceptual modeling and practical application. By validating the ontology through real-world e-participation initiatives, the study ensured its efficacy in capturing the nuances of diverse participatory platforms. Employing methods rooted in information science and computer science, the research illuminated the need for standardized frameworks in the dynamic landscape of e-Participation, emphasizing the significance of structured ontological representations.

Panopoulou et al. (2014) conducted an extensive exploration of the success factors underpinning eParticipation initiatives across Europe. Employing a multidisciplinary approach, the study amalgamated insights from existing literature, a European-wide survey, and practitioner interviews. The methodology incorporated qualitative content analysis and quantitative survey analysis, providing a comprehensive understanding of the intricacies of eParticipation. By identifying 23 success factors and their associated activities, the study offered a holistic view of the elements shaping effective eParticipation initiatives. Through a meticulous blend of qualitative and quantitative methods, the research contributed significantly to the evolving landscape of citizen engagement in the digital age.

Alathur et al. (2016) delved into the determinants of e-participation in India, focusing on both citizen and government initiatives. Their research methodology encompassed an extensive review of democracy and e-participation literature, followed by the development of a regression model. With a dataset comprising 407 responses from Indian participants, the study employed quantitative analysis techniques, likely involving regression analysis, to discern the factors influencing citizens' active participation. By distinguishing between citizens' and government-led initiatives, the study provided nuanced insights into the diverse factors shaping e-participation in the Indian context. Through rigorous quantitative analyses, the research illuminated the intricate dynamics of e-participation in a vibrant and diverse democracy like India.

The literature review highlights several key factors influencing e-participation and e-government initiatives. These factors include the sense of virtual community, user acceptance and satisfaction, municipal dimensions, e-government implementation frameworks, citizen-centric evaluation, ontologies for e-participation, and success factors in designing e-participation initiatives. Understanding these factors is crucial for policymakers and practitioners involved in e-participation and e-government projects to design effective strategies, enhance citizen engagement, and improve the delivery of government services. Further research in these areas can contribute to the development of best practices and frameworks for successful implementation of e-participation and e-government initiatives.

Methodology

Population and Sampling Technique

The population for this research is the citizen of Nigeria, based on convenience and cost implications Enugu state was selected for carrying out the survey. 181 citizens participated in this study. The sample was selected through a stratified proportionate random sampling technique. The strata were created on basis of two location (Urban and local). The stratified proportionate sampling technique lends reliability to the study, as proper representation of the entire population is ensured. Statistical formula for sampling, $n=N/1+N(e)^2$ is used to reach the ideal sampling size for the study. The unit of analysis in this research is the citizens, whose response on the components of e-government initiatives would be collected, and the quality-of-service delivery in Nigeria would be captured by in a well-structured questionnaire. Due to the requirements of this study, as dictated by the research objectives, and keeping in view the applicable epistemological paradigm, a quantitative approach would be employed, and thereby, with support from existing studies in the field, a quantitative research study is set up for this research.

Table 1: Citizens Sample Allocation Based on Location

Area	Sample	Percentage
Urban	119	65.7%
Local	62	34.3%
Total	181	

The proportionate sample based on the two major location is 181. This sample of the citizen's responses was used for the study, to collect and assess the effects and implications of e-government initiatives on citizen engagement and the quality-of-service delivery in Nigeria.

Instrument

A closed ended structured questionnaire based upon e-government initiatives on citizens engagement and quality of service delivery was used to collect the data.

Data Collection Procedure

Data for this research was collected through voluntary participation from respondents. The e-government initiatives on citizens participation were printed and additional demographic information columns were added to collect relevant information from respondents. The dependent variable for this framework, i.e., citizens and quality of service delivery, is measured through using a closed ended questionnaire that has a likert scale. This is collected through the same data collection tool, along with basic demographic detail.

Data Analysis Procedure

The collected data is properly coded and entered in SPSS software for enabling quantitative data analysis. According to the nature of variables, the following statistical operations are carried out on the data for determining results:

1. Frequencies of demographic data
2. Descriptive statistics for relevant variables
3. Correlation between e-government initiatives and citizens engagement in public services and decision-making processes for hypothesis one
4. Linear regression analysis for hypothesis two.

Result and Discussion

Data recorded in table 2 showed that male students are 59.7% while female are 40.3% of the entire sample. In the categories of respondents age 53.6% are within 25-34yrs, 34.3% are within 18-24yrs, 10.5% are within >41yrs old and 1.1% were <18yrs of age. It was found that 71.8% of the participants had obtained their university degree, 7.2% already have their master or higher degree certificate, 17.1% are high school graduate while 3.9% are below high school. Finally, most of these participants come from the urban area with 65.7% response rate when compared to the local area having 34.3% response rate.

Table 2: Demographic Information of Respondents

Variable	Frequency	Percentage
Gender		
Male	108	59.7%
Female	73	40.3%
Age		
<18yrs	2	1.1%
18-24yrs	62	34.3%
25-34yrs	97	53.6%
>41yrs	19	10.5%
Location		
Urban	119	65.7%
Local	62	34.3%
Education		
Below High School	7	3.9%
High School Graduate	31	17.1%
University Degree	130	71.8%
Masters or Higher	13	7.2%

Table 3 includes the correlation analysis of the Awareness of e-government initiatives and citizen engagement in public services and decision-making processes. A number of significant relationships observed from the correlation analysis between the variables of interest. It has been observed that awareness of e-government initiatives has positive relationship ($r=0.482$; $p = 0.002$) with citizen engagement in public services and decision-making processes.

Table 3: Correlation Matrix

	Awareness of e-government initiatives	Citizen’s engagement in public services and decision-making processes.
Awareness of e-government initiatives	1	
Citizen’s engagement in public services and decision-making processes	0.482 (0.002) *	1

The table 4 showed the model summary for the regression analysis. Value of R^2 is 0.391 which means that about 39.1% percent of citizens engagement in public services and decision-making processes is predicted by their awareness of e-government initiatives. Thus, in other words, almost 60.9% of citizens engagement in public services and decision-making processes depends upon factors other than awareness of e-government initiatives (which can be investigated in further studies).

Table 4: Model Summary

Model	R	R^2	Adjusted R^2	S.E Estimate
1	0.478	0.391	0.171	0.30329

The variance table 5 validates the regression significance ($p<0.05$) with ($F=52.8655$). This paves our study to move further and look at the coefficients of the variables, and determine the impact/ effect of awareness of e-government initiatives in predicting citizens engagement in public services and decision-making processes in Nigeria.

Table 5: Variance for the Regression Model

Model		Sum of square	Df	Mean square	F	Sig
1	Regression	3.579	1	3.579	52.8655	0.000
	Residual	12.187	180	0.0677		
	Total	15.766	181			

Dependent Variable: citizens engagement in public services and decision-making processes

Predictors: (Constant), awareness of e-government initiatives

From the regression coefficients' table 6, At 5% level of significance, it can be seen that coefficients are positively significant ($p < 0.05$) for the awareness of e-government initiatives. The standard coefficient beta for awareness of e-government initiatives is 0.5439, which means, with one degree increase in awareness of e-government initiatives, the citizens engagement in public services and decision-making processes would rise by 54.39%.

Table 6: Coefficient of the Regression

	Unstandardized Coefficients		Standardized Coefficients	t	P	95% C. I	
	B	St. Error	Beta			LB	UB
Constant	2.1889	.2041		10.225	.000	1.7892	2.6783
Awareness of e-government initiatives	.02511	.006	.5439	4.3409	.000	0.1475	.03871

Dependent Variable: citizens engagement in public services and decision-making processes

Discussion of Findings

The aim of this study was to assess the effects and implication of e-government initiatives on citizens engagement and the quality-of-service delivery in Nigeria. Specifically, the study sought to; find out the level of awareness among Nigerians citizens regarding e-government initiatives and platforms, and also to evaluate if and how e-government initiatives have enhanced the efficiency, timelines and quality of public services delivery. Survey research design was employed while correlation and regression analysis technique were used for analyzing the data. The demographic information of the data indicates that majority of the participants were male having 108 (59.7%) response rate, with most of them within 25-34yrs old.

The results of the study for hypothesis one suggests that at 5% level of significance there is a statistically significant positive relationship between awareness of e-government initiatives with increased citizens engagement in public services and decision-making processes ($r = .482$; $p = .0002$). While the result for hypothesis two indicates that the implementation of e-government platforms has significantly improved the efficiency and quality of public service delivery in Nigeria such that (Beta = .5439; $p = 0.05$).

Implication of Findings

Implication of Finding for Hypothesis One:

The finding that there is a statistically significant positive relationship between awareness of e-government initiatives and increased citizen engagement in public services and decision-making processes holds significant implications for policy-makers and administrators. To enhance citizen engagement, it is imperative for governments to invest in awareness campaigns regarding e-government initiatives. This implies that initiatives such as informative workshops, digital literacy programs, and outreach efforts can effectively bridge the gap between citizens and e-government services. Policymakers should focus on educating citizens about the available online platforms and services, enabling them to actively participate in shaping public policies and decisions. Additionally, creating user-friendly interfaces and providing clear, accessible information about government initiatives can further encourage citizens' active involvement, fostering a more transparent and participatory democratic process.

Implication of Finding for Hypothesis Two:

The finding that the implementation of e-government platforms has significantly improved the efficiency and quality of public service delivery in Nigeria emphasizes the transformative potential of digital governance. This result underscores the need for sustained investment in digital infrastructure and platforms. Governments should prioritize the development of robust, secure, and user-friendly online systems to ensure seamless service delivery to citizens. Moreover, this finding implies that public officials and service providers need to be adequately trained to operate and manage these digital platforms efficiently. Continuous monitoring and evaluation of these platforms are also crucial to identify areas for improvement and ensure that the digital services meet the evolving needs of the citizens. By embracing and enhancing e-government platforms, governments can optimize resource allocation, improve service accessibility, and ultimately enhance overall public satisfaction and trust in government institutions.

Conclusion

In conclusion, this study delved into the impact of e-government initiatives on citizen engagement and public service delivery in Nigeria. The findings provide compelling evidence of the transformative power of digital governance in the context of a developing nation. The statistically significant positive relationship identified between awareness of e-government initiatives and increased citizen engagement underscores the importance of education and outreach efforts. Governments must prioritize disseminating information about online platforms and services, ensuring that citizens are aware of and comfortable with digital interfaces. This awareness not only empowers citizens to actively participate in public services and decision-making processes but also fosters a more transparent and inclusive democracy.

Furthermore, the study demonstrated that the implementation of e-government platforms significantly enhances the efficiency and quality of public service delivery. This outcome highlights the potential of technology to streamline administrative processes, optimize resource utilization, and ultimately improve the lives of citizens. However, this transformation is contingent upon continued investments in digital infrastructure, training programs for public officials, and regular evaluations of the digital platforms to address emerging challenges and maintain high standards of service quality.

As we move forward, it is imperative for policymakers and stakeholders to leverage these findings. By embracing the lessons from this study, governments can not only enhance citizen engagement and public service delivery but also bolster trust in public institutions. The digital evolution of governance is not just a technological advancement; it is a fundamental shift towards more participatory, efficient, and accountable governance. By integrating these insights into policy frameworks and strategic planning, nations can pave the way for a more responsive and citizen-centric government, ultimately contributing to sustainable development and social progress.

References

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived Usefulness, Ease of Use, and Usage of Information Technology: A Replication. *MIS Quarterly*, 16(2), 227. <https://doi.org/10.2307/249577>
- Adnan, M., Ghazali, M., & Othman, N. Z. S. (2022). E-participation within the context of e-government initiatives: A comprehensive systematic review. *Telematics and Informatics Reports*, 8, 100015. <https://doi.org/10.1016/j.teler.2022.100015>
- Alam, T., Aftab, M., Abbas, Z., Ugli, K. M. M., & Bokhari, S. A. A. (2023). Impact of E-Government Initiatives to Combat Corruption Mediating by Behavioral Intention: A Quantitative Analysis from Emerging Economies. *Sustainability*, 15(3), 2694. <https://doi.org/10.3390/su15032694>
- Alathur, S., Vigneswara Ilavarasan, P., & Gupta, M. P. (2016). Determinants of e-participation in the citizens and the government initiatives: Insights from India. *Socio-Economic Planning Sciences*, 55, 25–35. <https://doi.org/10.1016/j.seps.2016.04.005>
- Apleni, A., & Smuts, H. (2020). An e-Government Implementation Framework: A Developing Country Case Study. *Responsible Design, Implementation and Use of Information and Communication Technology*, 12067, 15–27. https://doi.org/10.1007/978-3-030-45002-1_2
- Chohan, S. R., & Hu, G. (2020). Strengthening digital inclusion through e-government: cohesive ICT training programs to intensify digital competency. *Information Technology for Development*, 28(1), 1–23. <https://doi.org/10.1080/02681102.2020.1841713>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Hamner, M., Negrón, M. A., Taha, D., & Brahimi, S. (2012). *e-Government Implementation in a Developing Country: A Case Study*. www.igi-global.com; IGI Global. <https://www.igi-global.com/chapter/government-implementation-developing-country/62359>
- Malodia, S., Dhir, A., Mishra, M., & Bhatti, Z. A. (2021). Future of e-Government: An integrated conceptual framework. *Technological Forecasting and Social Change*, 173, 121102. <https://doi.org/10.1016/j.techfore.2021.121102>
- Mensah, I. K. (2020). E-Government and Public Administration. *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 1–8. https://doi.org/10.1007/978-3-319-31816-5_3864-1
- Muriithi, P., Horner, D., & Pemberton, L. (2016). Factors contributing to adoption and use of information and communication technologies within research collaborations in Kenya. *Information Technology for Development*, 22(sup1), 84–100. <https://doi.org/10.1080/02681102.2015.1121856>
- Naranjo-Zolotov, M., Oliveira, T., Casteleyn, S., & Irani, Z. (2019). Continuous usage of e-participation: The role of the sense of virtual community. *Government Information Quarterly*, 36(3), 536–545. <https://doi.org/10.1016/j.giq.2019.05.009>
- Panopoulou, E., Tambouris, E., & Tarabanis, K. (2014). Success factors in designing eParticipation initiatives. *Information and Organization*, 24(4), 195–213. <https://doi.org/10.1016/j.infoandorg.2014.08.001>
- Porwol, L., Ojo, A., & Breslin, J. G. (2016). An ontology for next generation e-Participation initiatives. *Government Information Quarterly*, 33(3), 583–594. <https://doi.org/10.1016/j.giq.2016.01.007>

Roztock, N., Soja, P., & Weistroffer, H. R. (2019). The role of information and communication technologies in socioeconomic development: towards a multi-dimensional framework. *Information Technology for Development*, 25(2), 171–183. tandfonline. <https://doi.org/10.1080/02681102.2019.1596654>

Sigwejo, A., & Pather, S. (2016). A Citizen-Centric Framework For Assessing E-Government Effectiveness. *The Electronic Journal of Information Systems in Developing Countries*, 74(1), 1–27. <https://doi.org/10.1002/j.1681-4835.2016.tb00542.x>

Tejedo-Romero, F., Araujo, J. F. F. E., Tejada, Á., & Ramírez, Y. (2022). E-government mechanisms to enhance the participation of citizens and society: Exploratory analysis through the dimension of municipalities. *Technology in Society*, 70, 101978. <https://doi.org/10.1016/j.techsoc.2022.101978>

Twizeyimana, J. D., & Andersson, A. (2019). The public value of E-Government – A literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>

Vassilakopoulou, P., & Hustad, E. (2021). Bridging Digital Divides: a Literature Review and Research Agenda for Information Systems Research. *Information Systems Frontiers*, 25, 955–969. springer. <https://doi.org/10.1007/s10796-020-10096-3>

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: toward a Unified View. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>

Xin, Y., Dilanchiev, A., Ali, M., Irfan, M., & Hong, Y. (2022). Assessing Citizens' Attitudes and Intentions to Adopt E-Government Services: A Roadmap toward Sustainable Development. *Sustainability*, 14(22), 15183. <https://doi.org/10.3390/su142215183>

Zeebaree, M., Agoyi, M., & Aqel, M. (2022). Sustainable Adoption of E-Government from the UTAUT Perspective. *Sustainability*, 14(9), 5370. <https://doi.org/10.3390/su14095370>

Zou, Q., Mao, Z., Yan, R., Liu, S., & Duan, Z. (2023). Vision and reality of e-government for governance improvement: Evidence from global cross-country panel data. *Technological Forecasting and Social Change*, 194, 122667–122667. <https://doi.org/10.1016/j.techfore.2023.122667>

APPENDIX I: QUESTIONNAIRE

Section A: Demographics

1	Gender	Male	Female	Non-binary/Other	Prefer Not to Say
2	Age (Years)	Under 18	18-24	25-34	Above 41
3	Location	Urban	Local		
4	Educational Level	Below High School	High School Graduate	University Degree	Master's or Higher
5	Occupation				

Section B: E-Government Awareness

5	Have you ever used an E-Government platform/service in Nigeria?	Yes	No		
6	How did you learn about the E-Government services? (Select all that apply)	Television/Radio	Online advertisement	Friends/Family	Public Service Announcement

Section C: Impact on Citizen Engagement

7	Do you believe E-Government initiatives make it easier for citizens to engage with the government?	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
8	How often do you interact with government services since the introduction of E-Government initiatives?	More frequently	About the same	Less frequently		

Section D: Service Delivery

9	How would you rate the efficiency of E-Government services compared to traditional methods?	Much better	Somewhat better	About the same	Somewhat worse	Much worse
10	Do you believe E-Government initiatives have reduced bureaucracy in public service delivery?	Strongly agree	Agree	Neutral	Disagree	Strongly disagree