

# E-Government Transformation in Improving Transparency and Accountability of Public Services in Indonesia

<sup>1</sup>Luis Armando Sabarofek\*, <sup>2</sup>Achmad Nurmandi, <sup>3</sup>Muhammad Younus

<sup>1,2</sup>Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia

<sup>3</sup>TPL Logistics Pvt Ltd, Karachi, Pakistan

\*Corresponding author email: [luisarmandosabarofek13@gmail.com](mailto:luisarmandosabarofek13@gmail.com)

## Abstract

This study discusses the transformation of e-government as a strategic effort to improve the transparency and accountability of public services in Indonesia. The main objective of this study is to analyse how the digitisation of bureaucratic processes, the integration of information systems, and the use of technology can strengthen information disclosure and the accountability of officials in the delivery of public services. This study uses a qualitative approach with combined data analysis techniques, namely bibliometric analysis using VOSviewer and thematic analysis using NVivo 12 Plus. VOSviewer is used to map the development of research themes in Scopus-indexed articles, while NVivo 12 Plus is used to identify patterns, themes, and conceptual relationships in relevant literature. The results show that e-government transformation contributes to increased access to public information, strengthened citizen oversight mechanisms, and improved service efficiency. However, challenges such as limited system integration, digital infrastructure gaps between regions, and low digital literacy remain significant obstacles. This study concludes that e-government transformation is not only a technological innovation but also an institutional change that requires political commitment, increased capacity of the apparatus, and active community participation. This study contributes theoretically to the study of digital

Submitted:

January 22, 2024

Accepted:

February 28, 2024

Published:

April 30, 2024

This work is licensed  
under a Creative  
Commons Attribution-  
NonCommercial 4.0  
International License

governance and offers practical recommendations for strengthening the transparency and accountability of public services in Indonesia.

## Keywords

E-Government, Transparency, Accountability, Public Services, Digital Governance

## Introduction

Governments everywhere are embracing e-government solutions at an increasing rate as digital technology develops in an effort to enhance public services, boost public confidence, and streamline administrative procedures. Increased accountability and transparency are two key components of good governance that may be fostered by integrating information and communication technology (ICT) into public administration.<sup>1</sup> The adoption of e-Government has improved public administration's accountability and transparency. Information and communication technology (ICT) can be used by the government to improve public access to government data and information, as well as to enable more effective oversight and audit procedures.<sup>2</sup> By utilizing cutting-edge technologies to enhance governance, efficiency, and public confidence, digital accountability revolutionizes transparency and the provision of public sector services. Financial reporting, fraud prevention, and decision-making processes are being revolutionized by innovations like blockchain, artificial intelligence, and real-time data analytics.<sup>3</sup>

For a while now, the public has been aware of the deteriorating trust between the public and the public sector. The emergence of new political parties that support anti-government

---

<sup>1</sup> D B Setyarto and L Judijanto, "The Role of E-Government in Increasing Transparency and Accountability of Public Administration in the Digital Era," *Edelweiss Applied Science and Technology* 9, no. 2 (2025): 1771–83, <https://doi.org/10.55214/25768484.v9i2.4908>.

<sup>2</sup> Mengzhong Zhang and Manpreet Kaur, "Toward a Theory of E-Government: Challenges and Opportunities, a Literature Review," *Journal of Infrastructure, Policy and Development* 8, no. 10 (2024), <https://doi.org/10.24294/jipd.v8i10.7707>.

<sup>3</sup> M U Tariq, "Digital Accountability: Revolutionizing Public Sector Transparency and Service Delivery," in *Enhancing Public Sector Accountability and Services Through Digital Innovation* (Abu Dhabi University, United Arab Emirates: IGI Global, 2025), 129–54, <https://doi.org/10.4018/979-8-3693-9251-5.ch004>.

sentiment, citizen aggression toward civil servants, the low appeal of jobs in the public sector, public organizations' desire to demand more evidence from citizens when making decisions, and increased government surveillance are some of the factors that contribute to this decline in trust and occasionally even an increase in it.<sup>4</sup> One of the primary causes of governmental change is the erosion of public confidence in the government McNabb, 2009. The public sector was viewed in the 1980s as ineffective, opaque, and costly, and as not offering the services that the people desired.<sup>5</sup> No topic in American politics is more challenging to resolve or more important to the country's representative government's future than public trust. Cynicism and mistrust of the democratic system of government and the elected individuals who rule it have grown and proliferated throughout the United States in recent decades.<sup>6</sup>

By encouraging accountability and transparency, e-government is being implemented in Indonesia to enhance public services and thwart corruption. It is intended that by putting this system in place, corruption, collusion, and nepotism can be avoided and Indonesia's regional planning and progress will be tracked. However, in actuality, e-government, or electronic-based public services, has not proven successful in stopping corruption in Indonesian local government.<sup>7</sup> E-government enhances the efficacy, efficiency, accountability, and openness of public service delivery by integrating information and communication technologies into government procedures. To facilitate comprehensive access to information and public services in local government, the government can leverage e-government to remove bureaucratic barriers within organizations and create a network of

---

<sup>4</sup> N Raaphorst and S Van de Walle, "Trust in and by the Public Sector," in *The Routledge Companion to Trust* (Institute of Public Administration, Leiden University, Netherlands: Taylor and Francis, 2017), 469–82, <https://doi.org/10.4324/9781315745572>.

<sup>5</sup> S Van de Walle, "NPM: Restoring the Public Trust through Creating Distrust?," in *The Ashgate Research Companion to New Public Management* (Erasmus University, Rotterdam, Netherlands: Taylor and Francis, 2016), 309–20, <https://doi.org/10.4324/9781315613321-31>.

<sup>6</sup> J Cooper, "The Puzzle of Distrust," in *Congress and the Decline of Public Trust* (Johns Hopkins University, United States: Taylor and Francis, 2018), 1–26, <https://doi.org/10.4324/9780429501418>.

<sup>7</sup> A Fathonih et al., "Transparency and Corruption: Does E-Government Effective to Combat Corruption?," *International Journal of Psychosocial Rehabilitation* 24, no. 4 (2020): 5396–5404, <https://doi.org/10.37200/IJPR/V24I4/PR201636>.

management information systems and work processes that allow government agencies to collaborate effectively.<sup>8</sup> Transparency in public service delivery has increased as a result of the SP4N-LAPOR! System's notable advancements in interagency cooperation and complaint handling. Through process simplification, coordination improvement, and transparency promotion, virtual organizations play a critical role in increasing the efficacy of e-government.<sup>9</sup>

The extent to which the use of e-government can actually enhance the accountability and openness of public services in Indonesia is still up for dispute in the context of the digital transformation of government.<sup>10</sup> Despite the implementation of a number of digital innovations, including the Electronic-Based Government System (SPBE), integrated service portals, and public complaint forums, issues with data integration, information disclosure, and public apparatus accountability continue to occur regularly.<sup>11</sup> In light of this context, this study aims to address several important questions, including: how does the Indonesian government's e-government transformation progress in achieving transparent and accountable digital public services; how does the adoption of e-government policies enhance information transparency and public involvement in the service process; and how

---

<sup>8</sup> A Suradi and H D Purnomo, "A Proposed Model for Assess E-Government Adoption in Local Government," in *AIP Conference Proceedings*, ed. Firdaus R. et al., vol. 3167 (Faculty of Computer Science, Universitas Widya Dharma, Klaten, Indonesia: American Institute of Physics, 2024), <https://doi.org/10.1063/5.0218211>.

<sup>9</sup> A Sarjito, "Leveraging Virtual Organizations for E-Government Effectiveness: A Case Study of Indonesia's SP4N-LAPOR! Program," *EJournal of EDemocracy and Open Government* 17, no. 3 (2025): 25–58, <https://doi.org/10.29379/jedem.v17i3.996>.

<sup>10</sup> R F Oktaviani et al., "E-Budgeting for Public Finance Transparency and Accountability," *International Journal of Recent Technology and Engineering* 8, no. 2 Special Issue 4 (2019): 854–57, <https://doi.org/10.35940/ijrte.B11700782S419>.

<sup>11</sup> Y Setyawan et al., "Digital Government Post-Reform in Indonesia: Normative Developments and Implementation by State Organizing Institutions," *Law Reform: Jurnal Pembaharuan Hukum* 21, no. 1 (2025): 155–79, <https://doi.org/10.14710/lr.v21i1.68556>.



much can e-government transformation improve bureaucratic accountability through the public service digitalization mechanism.<sup>12</sup>

This study's primary goal is to thoroughly examine how Indonesia's public services are becoming more transparent and accountable as a result of the e-government revolution. In addition to examining the extent to which e-government innovation might encourage information disclosure and improve the bureaucracy's responsibility to the public, this study aims to determine the types and directions of change in the government's digital government system. This study also seeks to determine the factors that affect the success and challenges of using e-government as a tool for accountable and transparent governance, as well as the relationship between the efficacy of public oversight and the implementation of digital policies. Therefore, it is anticipated that the findings of this study would conceptually advance the field of digital governance research and offer helpful suggestions for raising the standard of public services in the age of government's digital transformation.

This study's methodology is new in that it sees e-government as a systemic process of governance transformation focused on openness and public accountability, rather than just as a technology tool. By connecting the aspects of digital policy, bureaucratic conduct, and public involvement within the context of contemporary governance, this study offers a thorough analysis. This study emphasizes the dynamics of institutional change and interactions between government and society in the context of digital governance, in contrast to earlier research that tended to focus on efficiency and technological adoption. Thus, by providing a greater understanding of how digital transformation might improve the legitimacy, accountability, and transparency of public service delivery, this study adds to the body of knowledge on e-government in Indonesia.

The use of information and communication technology to streamline government processes and the distribution of information and associated services is known as e-government. More

---

<sup>12</sup> A Ferreira and C Santos, "Digital Transformation in Public Sector: Systematic Literature Review," in *Enhancing Public Sector Accountability and Services Through Digital Innovation* (University of Aveiro, Portugal: IGI Global, 2025), 265–88, <https://doi.org/10.4018/979-8-3693-9251-5.ch008>.

effective and efficient services are offered to citizens and other parties when e-government is functioning well, hence it is intended that.<sup>13</sup> E-government systems are a component of the broader public sector digital transformation process. Nations with effective e-government systems have been able to improve government performance, accountability, and transparency while also lessening the administrative burden on businesses and citizens. The connection between elements like the rule of law and corruption control and the advancement of e-government systems.<sup>14</sup> Public administration digitization is a crucial prerequisite for each nation's social and economic advancement. In this regard, e-government is evolving and expanding its implementation methods, which greatly improve public administration efficiency, raise transparency levels, and lessen corruption in public institutions.<sup>15</sup>

Recent developments have demonstrated that e-Government services contribute to the attainment of good governance. Through the use of contemporary information and communication technology, these e-Government services offer a productive electronic public administration platform that facilitates communication between government Ministries, Departments, and Agencies (K/L) and citizens.<sup>16</sup> The swift advancement of digitalization has prompted a number of nations to embrace e-government in an effort to enhance quality

---

<sup>13</sup> C Kao, "Evaluation and Improvement of E-Government: The Case of European Countries," in *2015 2nd International Conference on EDemocracy and EGovernment, ICEDEG 2015*, ed. Teran L. et al. (Department of Industrial and Information Management, National Cheng Kung University, Tainan, Taiwan: Institute of Electrical and Electronics Engineers Inc., 2015), 104–7, <https://doi.org/10.1109/ICEDEG.2015.7114488>.

<sup>14</sup> Ebenezer Agbozo and Benjamin K. Asamoah, "The Role of E-Government Systems in Ensuring Government Effectiveness and Control of Corruption," *R-Economy* 5, no. 2 (2019): 53–60, <https://doi.org/10.15826/recon.2019.5.2.006>.

<sup>15</sup> Armenia Androniceanu and Irina Georgescu, "E-Government in European Countries, a Comparative Approach Using the Principal Components Analysis," *NISPAcee Journal of Public Administration and Policy* 14, no. 2 (2021): 65–86, <https://doi.org/10.2478/nispa-2021-0015>.

<sup>16</sup> E T Tchao et al., "E-Government Services in Ghana - Current State and Future Perspective," in *Proceedings - 2017 International Conference on Computational Science and Computational Intelligence, CSCI 2017*, ed. Tinetti F.G. et al. (Dept of Computer Engineering, KNUST, Kumasi, Ghana: Institute of Electrical and Electronics Engineers Inc., 2018), 624–31, <https://doi.org/10.1109/CSCI.2017.108>.

and efficiency, lower expenses, and increase openness in their dealings with citizens, thus fortifying the bond between the state and its constituents. Since e-government has grown to be crucial for development, it is vital to assess a nation's e-government at different points in time, from preparation to the realization of ultimate advantages.<sup>17</sup> Numerous nations are seeing an increase in the usage of cloud computing for e-government, but there are some obstacles to overcome. Inadequate equipment and erratic internet connections are examples of infrastructure problems that hinder the effective integration of cloud solutions. When citizens' personal information is kept on the cloud and is vulnerable to hacking or unauthorized access, data security and privacy issues surface.<sup>18</sup>

Law No. 14 of 2008, which ensures public information disclosure, regulates public information openness in Indonesia. To carry out a thorough analysis of the degree to which the Indonesian government adheres to the guidelines outlined in its laws concerning the dissemination of information throughout the epidemic.<sup>19</sup> As a generic word that encompasses concerns pertaining to the battle against corruption, the creation of more open and participatory governance, and institutional, corporate, and social agency accountability, transparency has garnered significant international attention. Open data and assured access to public information are also associated with transparency.<sup>20</sup> People both inside and outside of an organization can get accurate information about its operations thanks to the idea and

---

<sup>17</sup> Sudesh Sheoran and Sanket Vij, "A Review of E-Government Assessment Frame-Works: E-Readiness, Adoption, Citizen Engagement and Quality," *EJournal of EDemocracy and Open Government* 14, no. 2 (2022): 197–213, <https://doi.org/10.29379/jedem.v14i2.717>.

<sup>18</sup> R Tamilarasi et al., "Machine Learning Challenges of E-Government Models of Cloud Computing in Developing Countries," in *Proceedings of the 18th INDIAcom; 2024 11th International Conference on Computing for Sustainable Global Development, INDIACom 2024*, ed. Hoda M.N. (Alliance University, Department of Computer Science and Engineering, Bengaluru, India: Institute of Electrical and Electronics Engineers Inc., 2024), 1804–9, <https://doi.org/10.23919/INDIACom61295.2024.10498915>.

<sup>19</sup> R Khadafi et al., "Assessing the Indonesian Government's Compliance with the Public Information Disclosure Law in the Context of COVID-19 Data Transparency," *Frontiers in Political Science* 6 (2024), <https://doi.org/10.3389/fpos.2024.1339506>.

<sup>20</sup> A R Pacios and S Martínez-Cardama, "A Comparison of Public Disclosure in Archives and Libraries Using TransPa\_BA," *Profesional de La Informacion* 32, no. 1 (2023), <https://doi.org/10.3145/epi.2023.ene.01>.

practice of transparency. In public administration, the term “transparency” refers to the values and procedures that allow both internal and external stakeholders to access accurate information about an organization’s operations.<sup>21</sup>

Ensuring the appropriate use of public resources requires public accountability. Despite its critical function, there are still gaps in many nations at both the local and global levels, suggesting that public accountability has not gotten enough attention when it comes to the use of public resources.<sup>22</sup> Public accountability mechanisms are defined as a crucial instrument in public governance in this comparative research, emphasizing its function in guaranteeing accountability, transparency, and efficient oversight. It describes these mechanisms, their presence, and the reasons behind their significance in maintaining good governance.<sup>23</sup> Additionally, accountability serves as a tool for participatory management and social control, allowing the general public to be involved in the organization and supervision of administrative operations. To guarantee the sustainability of political and administrative decisions, as well as to engage in active and responsible citizenship, this calls for widespread access to the information required. The concept of responsibility is presented here as a social control mechanism, and the primary focus of the study is participatory management of administrative operations.<sup>24</sup>

With a focus on managerialism and quasi-market business ideas, New Public Management (NPM) is a set of tenets or value statements regarding the structure, management, and operation of public sector organizations. The evolution, salient characteristics, and

---

<sup>21</sup> A Ingrams, “Transparency,” in *Global Encyclopedia of Public Administration, Public Policy, and Go.: With 294 Figures and 229 Tables* (School of Public Affairs and Administration, Rutgers University – Newark, Newark, NJ, United States: Springer International Publishing, 2018), 6002–8, [https://doi.org/10.1007/978-3-319-20928-9\\_2256](https://doi.org/10.1007/978-3-319-20928-9_2256).

<sup>22</sup> C N Makanga et al., “Oversight Mechanisms and Public Accountability in an Emerging Economy,” *Cogent Business and Management* 12, no. 1 (2025), <https://doi.org/10.1080/23311975.2025.2507216>.

<sup>23</sup> H B A Alshaikh, “A Comparative Analysis Of Public Accountability Mechanisms,” *International Comparative Jurisprudence* 10, no. 2 (2024): 221–34, <https://doi.org/10.13165/j.icj.2024.12.004>.

<sup>24</sup> J S S Cristóvam and J C L Bergamini, “The centrality of accountability concept as an instrument for implementing the sustainable Public Administration model,” *A e C - Revista de Direito Administrativo e Constitucional* 21, no. 84 (2021): 87–108, <https://doi.org/10.21056/aec.v21i84.1372>.

theoretical foundations of NPM describe the primary arguments between its proponents and detractors, as well as any unforeseen ramifications for other public services.<sup>25</sup> As a result of social and economic shifts in the 1970s, traditional public administration theory was reinterpreted to create new public management (NPM), a set of regulations designed to do away with complex management systems. The traditional public administration structure was criticized by these efficiency-focused programs.<sup>26</sup> Governments must compel the provision of effective and efficient public services during economic downturns. To get beyond these challenges, New Public Management (NPM), Digital Era Governance (DEG), and strategic budgeting are employed. This strategy improves accountability, transparency, and citizen-centred services by striking a balance between DEG innovation and NPM's focus on market-driven efficiency.<sup>27</sup>

In order to address governance issues globally, collaborative governance has drawn interest from scholars and practitioners. To provide effective public services and address complicated local issues, the Pakistani government places a strong focus on local collaborative governance approaches.<sup>28</sup> Cooperation, coordination, communication, and enticing partners toward symbiotic mutualism are all referred to as collaborative governance. The idea of collaborative governance has the potential to bridge the gap between the public and private sectors, academia, the media, and the community. Suboptimal public service delivery, characterized by slowness, cost uncertainty, and completion uncertainty, is a phenomenon that arises in

---

<sup>25</sup> S Melo, "New Public Management," in *Elgar Encyclopedia of Critical Management Studies* (Queen's Management School, Queen's University Belfast, United Kingdom: Edward Elgar Publishing Ltd., 2025), 333–38, <https://doi.org/10.4337/9781800377721.00082>.

<sup>26</sup> B Şahin, "Comparative Analysis of New Public Management Policies of Developed and Developing Countries," in *New Public Management in Turkey: Local Government Reform* (Istanbul Governorship, Turkey: Taylor and Francis, 2016), 267–85, <https://doi.org/10.4324/9781315641287-21>.

<sup>27</sup> G Liu and Z Zhang, "Improving Public Service in Economic Downturns: Strategies from Three Governance Frameworks," in *Handbook of Public Service Delivery* (Atlantic University, United States: Edward Elgar Publishing Ltd., 2024), 340–58, <https://doi.org/10.4337/9781035315314.00029>.

<sup>28</sup> M Zia ud din et al., "Linking Local Collaborative Governance and Public Service Delivery: Mediating Role of Institutional Capacity Building," *Humanities and Social Sciences Communications* 10, no. 1 (2023), <https://doi.org/10.1057/s41599-023-02421-3>.

collaborative governance.<sup>29</sup> Collaborative governance has drawn a lot of attention in the twenty-first century as a means of resolving socioeconomic issues and guaranteeing the accomplishment of sustainable development objectives. In this new model of governance, different stakeholders, including public institutions, the private sector, civil society organizations, and international public organizations, cooperate to solve social issues, guarantee prosperity and economic development, foster institutional change, and increase public trust in government.<sup>30</sup>

The correlation between the variables in this study demonstrates that e-government transformation is essential for encouraging accountability and transparency in the provision of public services.<sup>31</sup> Through the extension of public access to information and the improved transparency of government data, the transformation of e-government, which is typified by the digitization of bureaucratic procedures, the integration of information systems, and the openness of service data, directly increases transparency.<sup>32</sup> Opportunities for public scrutiny also rise with the ease of access to public information and the transparency of service procedures. Because government representatives must be more responsive, accountable, and responsible for every administrative activity and decision they make, this eventually improves bureaucratic accountability. Therefore, this causal link demonstrates that the degree to which the e-government transformation is successful is determined not only by its technological

---

<sup>29</sup> A Aidi et al., "The Effect of an Inclusive Approach to Collaborative Governance and Its Impact on Digitizing the Quality of Public Services," *Cogent Business and Management* 11, no. 1 (2024), <https://doi.org/10.1080/23311975.2024.2392324>.

<sup>30</sup> G S Yigzaw, "Collaborative Governance: A New Paradigm Shift for the Smart Cities," in *Examining the Socio-Technical Impact of Smart Cities* (Department of Governance and Development Studies, Bahir Dar University, Ethiopia: IGI Global, 2021), 1–35, <https://doi.org/10.4018/978-1-7998-5326-8.ch001>.

<sup>31</sup> I.-P. Efthymiou, "The Role of E-Government and e-Governance in Modern Societies," in *Public Governance Practices in the Age of AI* (University of Greenwich, United Kingdom: IGI Global, 2025), 45–68, <https://doi.org/10.4018/979-8-3693-9286-7.ch003>.

<sup>32</sup> V Prifti and D Sinoimeri, "Digital Transformation of Public Services in Albania: Evaluating the Impact of the e-Albania Platform," *WSEAS Transactions on Information Science and Applications* 22 (2025): 545–51, <https://doi.org/10.37394/23209.2025.22.45>.



capabilities but also by its capacity to establish an accountable, transparent, and open public service system.<sup>33</sup>

Despite the large number of e-government studies carried out in Indonesia, the majority of them still concentrate on technical issues and the effectiveness of public services, such as the speed at which services are accessed, the creativity of digital applications, and the degree of technology adoption by civil officials.<sup>34</sup> Still, there aren't many studies that explicitly connect the shift to e-government to greater accountability and openness in the bureaucracy, particularly when it comes to national and regional policy implementation. Additionally, prior research frequently emphasizes implementation success without thoroughly analysing the institutional shift and bureaucratic culture that accompany the digitization of public services.<sup>35</sup> Furthermore, not much research has been done to explain how digital transformation helps create a more transparent and accountable government by combining the viewpoints of digital governance and public accountability.<sup>36</sup> In order to close this gap, this study presents a thorough analysis of how Indonesia's e-government transformation has improved public services' accountability and transparency while also offering empirical support for more ethical and community-responsive digital governance.

---

<sup>33</sup> T Al-Shbail and A Aman, "E-Government and Accountability: How to Mitigate the Disorders and Dysfunctions of Accountability Relationships," *Transforming Government: People, Process and Policy* 12, no. 2 (2018): 155–90, <https://doi.org/10.1108/TG-09-2017-0057>.

<sup>34</sup> D A T Pulubuhu, A A Unde, and S Sumartias, "E-Government Technology and the Policy Implications to Food Security in Conflict Area," in *IOP Conference Series: Earth and Environmental Science*, vol. 681 (Sociology Department, Social and Political Sciences Faculty, Universitas Hasanuddin, Indonesia: IOP Publishing Ltd, 2021), <https://doi.org/10.1088/1755-1315/681/1/012057>.

<sup>35</sup> N Agustina et al., "Development of a Public Complaint Classification Model to Support E-Government Using IndoBERT," in *2024 6th International Conference on Cybernetics and Intelligent System, ICORIS 2024* (Department of Informatics, Universitas Teknologi Bandung, Bandung, Indonesia: Institute of Electrical and Electronics Engineers Inc., 2024), <https://doi.org/10.1109/ICORIS63540.2024.10903819>.

<sup>36</sup> R Hidayat, "Digital Governance And Transparency: How Open Data Initiatives Enhance Government Accountability," *Journal of Governance and Regulation* 14, no. 3 (2025): 194–204, <https://doi.org/10.22495/jgrv14i3art18>.



## Method

In order to better understand the dynamics, meaning, and process of e-government transformation in enhancing the accountability and transparency of public services in Indonesia, this study employs a qualitative approach with a descriptive-analytical research design. This method was selected because it applies to the analysis of intricate social phenomena and public policies, where context, actor interactions, and interpretations of digital regulations are significant factors that are impossible to quantify.<sup>37</sup> In order to obtain a thorough grasp of how the adoption of e-government influences the practices of accountability and transparency in the bureaucracy, researchers used qualitative research to investigate the viewpoints of different stakeholders, including public service users, digital system managers, and government officials. As a result, this study examines not just the outcomes of digital policies but also the institutional and social shifts brought about by the shift in government toward transparent and accountable digital governance.

Scopus-indexed worldwide academic literature and national policy documents about Indonesia's e-government implementation served as the study's data sources. The primary secondary data utilized to support empirical analysis and reinforce the theoretical foundation of the relationship between digital transformation, accountability, and transparency in public services came from Scopus articles.<sup>38</sup> Publications are included in the chosen literature, and the sources were chosen by means of methodical keyword searches, such as those carried out in the Scopus database. Additionally, this study aims to develop a thorough and impartial

---

<sup>37</sup> R Wagola, A Nurmandi, and D Subekti, "Government Digital Transformation in Indonesia," in *Communications in Computer and Information Science*, ed. Stephanidis C. et al., vol. 1835 CCIS (Department of Government Affairs and Administration, Yogyakarta Muhammadiyah University, Yogyakarta, Indonesia: Springer Science and Business Media Deutschland GmbH, 2023), 286–96, [https://doi.org/10.1007/978-3-031-36001-5\\_37](https://doi.org/10.1007/978-3-031-36001-5_37).

<sup>38</sup> JJ Baena Rojas, C Sánchez García, and A D Grajales Ramírez, "A Bibliometric Approach to the Publications in the Field of International Business in the Scopus Database," *IBIMA Business Review* 2020 (2020), <https://doi.org/10.5171/2020.213756>.

analysis of how e-government transformation enhances the accountability and openness of public services in Indonesia by combining data from international scientific sources.

The PRISM Diagram (Performance of Routine Information System Management) methodology, which maps the relationship between input, process, output, and outcome in the implementation of e-government, was used as the data gathering method in this study. The degree to which government information systems enhance the accountability and openness of public services was evaluated using this methodology.<sup>39</sup> Data is gathered via PRISM from a variety of sources, including pertinent scientific papers. To comprehend the progression of e-government transformation, every element of PRISM is methodically examined, starting with input (digital infrastructure and corresponding policies), moving on to process (data management and exchange mechanisms), output (digital-based public services), and ending with outcome (increased transparency and accountability). As a result, using the PRISM Diagram not only aids in conceptual data organization but also makes it possible for researchers to more thoroughly and quantitatively determine the connection between digital innovation and public government efficacy.

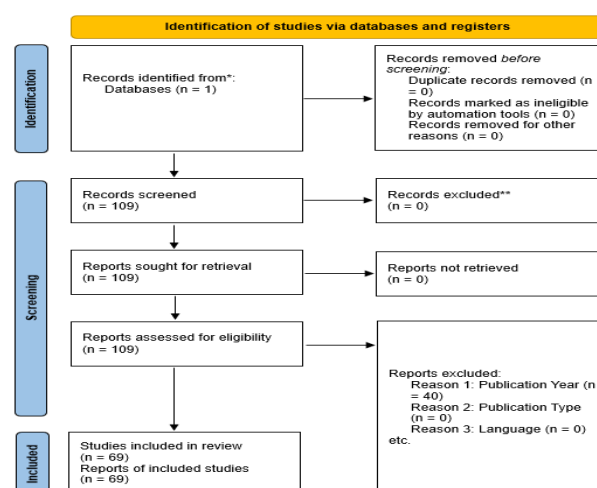


Figure 1. PRISMA Diagram

The steps of literature selection and screening in this study are explained by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow chart, which

<sup>39</sup> K E Trinkley et al., "Applying the Practical, Robust Implementation and Sustainability Model," in *Implementation Science: Theory and Application* (University of Colorado, Department of Family Medicine, United States: Taylor and Francis, 2024), 193–206, <https://doi.org/10.4324/9781003318125-19>.

is shown in Figure 1. One large, globally indexed database was searched during the identification stage, yielding 109 articles. During the initial screening phase, no deleted data or duplicate records were found. All of the identified papers were then chosen for the screening stage on the basis of their applicability to the research subject, which is public sector accountability, transparency, and e-government transformation. No articles were disqualified from the screening results because of incompatibility with the topic or publishing type. Subsequently, the papers were evaluated for eligibility using pre-established inclusion and exclusion criteria, including language appropriateness, document type, and year of publication. Forty of the 109 articles that were examined were removed due to their failure to meet the publication year requirements, leaving the remaining 69 articles to be considered eligible and included in the final analysis. In order to guarantee the validity and trustworthiness of the research findings, this PRISMA diagram demonstrates that the literature selection procedure was conducted methodically, openly, and quantifiably in compliance with the methodological requirements of a systematic literature review.

This study's data analysis method combined thematic qualitative analysis with NVivo 12 Plus and bibliometric analysis with VOSviewer. To find patterns of co-occurrence between terms associated with the themes of e-government, transparency, and accountability, researchers mapped and analysed conceptual links between topics in 69 Scopus-indexed papers using VOSviewer.<sup>40</sup> The mapping results' visual representation demonstrates the emergence of interrelated research clusters and the evolution of Indonesian studies on digital governance.<sup>41</sup> In the meantime, the data was methodically arranged, coded, and interpreted using NVivo 12 Plus. This coding procedure allowed the material to be grouped into key

---

<sup>40</sup> J Li and R Wei, "VOSviewer Application Status and Its Knowledge Base," *Journal of Library and Information Science in Agriculture* 34, no. 6 (2022): 61–71, <https://doi.org/10.13998/j.cnki.issn1002-1248.21-0843>.

<sup>41</sup> A A Saputra, C I Ratnasari, and N W Rahayu, "Payroll System: Digital Transformation in Government (A Case Study of an Indonesian Social Service)," in *Smart Innovation, Systems and Technologies*, ed. So In C. et al., vol. 379 (Department of Informatics, Universitas Islam Indonesia, Yogyakarta, Indonesia: Springer Science and Business Media Deutschland GmbH, 2024), 531–42, [https://doi.org/10.1007/978-981-99-8612-5\\_43](https://doi.org/10.1007/978-981-99-8612-5_43).

topics about Indonesia's e-government adoption.<sup>42</sup> While Treemap and Word Cloud visualisations are used to support thematic interpretations and highlight the predominance of concepts in the data, the feature is used to find correlations between categories. In order to better explain how e-government transformation helps to increase the accountability and transparency of public services in Indonesia, VOSviewer is used to support the validity of the literature analysis, while NVivo 12 Plus enhances interpretative understanding. The images of documents by year, country, author, and affiliation are then displayed by Scopus Analyse search results for "E-Government," "Public Services," and "Indonesia".

## Result and Discussion

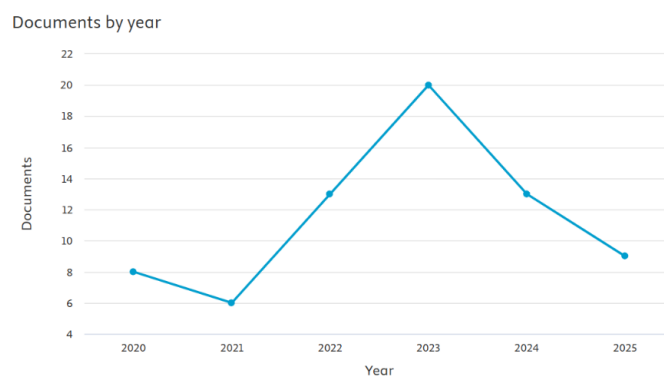
### *Scopus Analysis: Trends in E-Government and Public Services Research in Indonesia*

Research on E-Government and Public Services in Indonesia has been steadily growing over the last ten years, according to data analysis from Scopus Analyse search results. In keeping with the execution of national plans, publications have started to exhibit a notable increase since the year, according to the Documents by Year category. During that time, the greatest spike took place. In contrast to other Southeast Asian nations, Indonesia holds a commanding lead in the Documents by Country category. This demonstrates how Indonesia's e-government problem has drawn attention from around the world and offers an intriguing social and policy framework for analysis. In terms of the quantity of publications pertaining to this theme, several scholars from prestigious universities held the top spots in the Documents by Author category. Additionally, there seems to be more cooperation between research institutes and lecturers, particularly in interdisciplinary research that blends the viewpoints of public administration, information technology, and government science. Additionally, the results of the Documents by Affiliation analysis indicate that national

---

<sup>42</sup> C Sampson and L.-S. Wong, "Using Qualitative Data Analysis Software to Help Explore Critical Research Questions: A Tool, Not a Replacement," in *Handbook of Critical Education Research: Qualitative, Quantitative, and Emerging Approaches* (Division of Educational Leadership and Innovation, Arizona State University, United States: Taylor and Francis, 2023), 637–54, <https://doi.org/10.4324/9781003141464-38>.

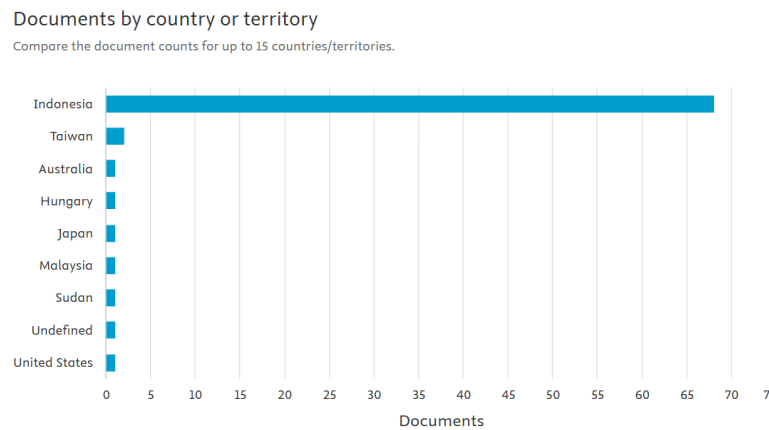
higher education institutions, which have the most publications, make up the largest contribution. These institutions are followed by several government research institutions and international universities that are participating in collaboration projects related to digital governance. These results demonstrate that the issue of e-government and public services in Indonesia is not only a domestic concern but has also entered the international conversation about the advancement of technology-based governance.



**Figure 2.** Publication of Research by Years (Source: Scopus)

Based on the findings of the Scopus data analysis in the Documents by Year category for the years 2020–2025, the illustration in Figure 2 shows the trend of scholarly publications in Indonesia according to the subject of e-government and public services. Significant variations in the quantity of publications during the previous six years are depicted in the graph. Eight publications were made in 2020; by 2021, that number had dropped to six. However, with 13 publications in 2022, the research trend started to pick up speed. By 2023, there were 20 articles altogether that addressed e-government concerns in the context of public services. Following that, there were fewer publications, falling to 13 in 2024 and 9 in 2025. The notable rise in 2022–2023 indicates that the topic of government digital transformation has gained attention from academics, particularly after the COVID-19 epidemic hastened Indonesia’s public service digitization. Scholarly interest in research on accountability, transparency, and the efficacy of IT-based public governance is reflected in this trend. In the meantime, the 2024–2025 fall can be seen as a period of research consolidation, where the emphasis of studies starts to move from the exploratory stage to the implementation and evaluation analysis of e-government programs. According to the Scopus

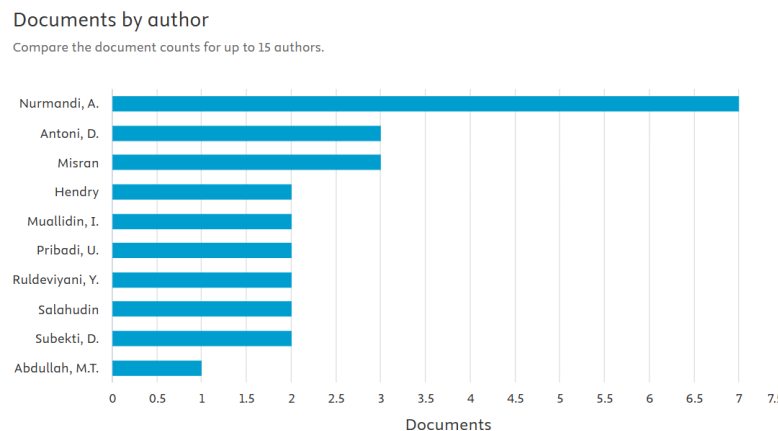
database, this graph so demonstrates that the years 2022–2023 mark the height of e-government research progress in Indonesia.



**Figure 3.** Country- Publication (Source: Scopus)

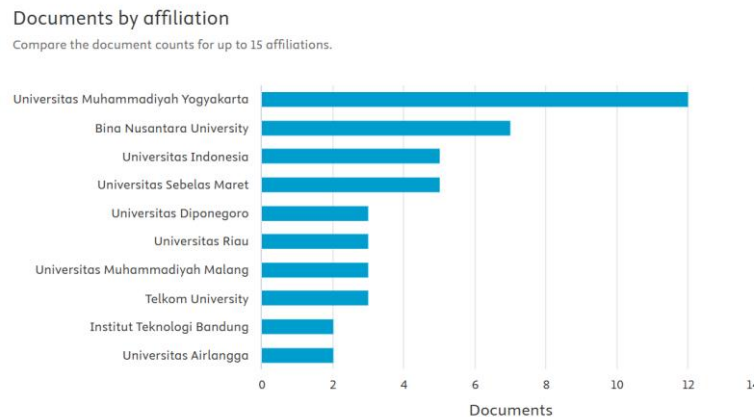
The distribution of publications by nations or regions that are engaged in E-Government and Public Services research in Indonesia is shown in Figure 3. Indonesia is the nation with the most publications, with over 70 documents, according to the analysis's findings. This indicates that domestic scholars have made the majority of the academic contributions to the growth of e-government studies in the country. Compared to other nations like Taiwan, Australia, Hungary, Japan, Malaysia, Sudan, and the United States, which each contributed one to two publications, this figure is far higher. The dominance of Indonesia in this graph shows that improving public services and digitally transforming government are key agenda items that have drawn a lot of interest from scholars and national research organizations. The participation of many other nations, however, suggests cross-border research cooperation, especially in comparative analyses of digital policy and the deployment of e-government systems in the Asia-Pacific area. These results also show that there is a lot of room to grow international collaboration networks in the development of digital public governance theory and practice, even though Indonesian e-government research is currently mostly focused on the domestic setting. As a result, in addition to demonstrating the prominence of Indonesia's scientific contributions, this graph also highlights the path of international research toward international collaboration in comprehending the prospects and difficulties of digital governance in the public sector.





**Figure 4.** Publication based on the Authors (Source: Scopus)

The distribution of author productivity (documents by author) in scholarly publications about Indonesian public services and e-government is shown in Figure 4. With seven publications overall, A. Nurmandi is the most productive author, according to the analysis's findings. Following Misran and D. Antoni, who each supplied three papers, are several other authors, including Hendry, I. Muallidin, U. Pribadi, Y. Ruldeviyani, Salahudin, D. Subekti, and M.T. Abdullah, who each contributed one to two papers. This distribution demonstrates how some academic groups continue to dominate e-government research in Indonesia by regularly studying the domains of public services and digital governance. Major universities that concentrate their study on digital transformation in the public sector, like Muhammadiyah University Yogyakarta, the University of Indonesia, and Bandung Institute of Technology, are typically the source of these designations. The presence of prominent research centres in the field of e-government, particularly in the fields of transparency, public service innovation, and digital policy, is also reflected in the domination of a few very creative authors. As a result, this graph offers a summary of the intellectual map of scholars actively involved in the growth of Indonesian e-government literature, along with the possibility of interdisciplinary and cross-institutional cooperation to broaden the focus of subsequent study.

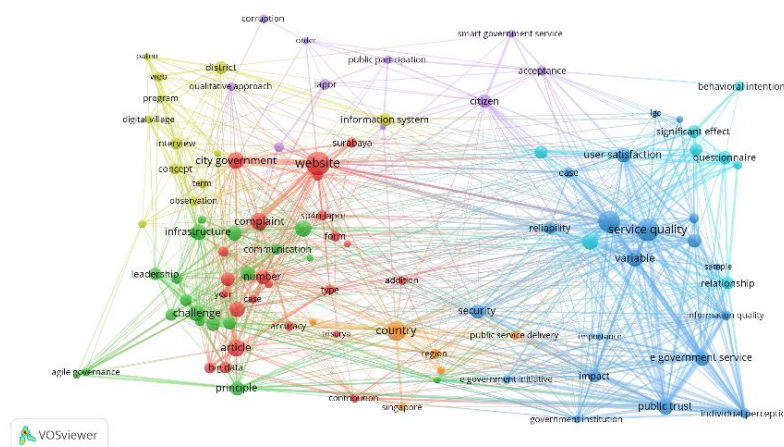


**Figure 5.** Publication based on Affiliation (Source: Scopus)

The distribution of scientific publications according to university or institutional affiliations that supported research on public services and e-government in Indonesia is shown in Figure 5. Muhammadiyah University Yogyakarta (UMY) is the university with the most publications, with about 13 documents, according to the analysis's findings. This demonstrates UMY's active position as one of the top research institutes in the fields of information technology-based public policy and digital governance. With eight documents, Bina Nusantara University comes in second, demonstrating the substantial contribution of scholars in the fields of digital governance management and information technology. With five documents apiece, the University of Indonesia and Sebelas Maret University come in third and fourth, respectively, indicating a steady stream of research in the fields of digital bureaucratic reform, transparency, and public administration. E-government research has become a cross-disciplinary and cross-institutional concern, as evidenced by the two to three publications that several other universities, including Diponegoro University, Riau University, Muhammadiyah University Malang, Telkom University, Bandung Institute of Technology, and Airlangga University, have also contributed. Overall, this graph demonstrates that research on digital public services and e-government in Indonesia is expanding quickly in several regional universities, in addition to being dominated by government agencies and large universities in Jakarta. This is a reflection of the growth of a collaborative and inclusive ecosystem for research on digital governance, where educational institutions are crucial in fostering innovation and openness in the public sector through the use of IT.

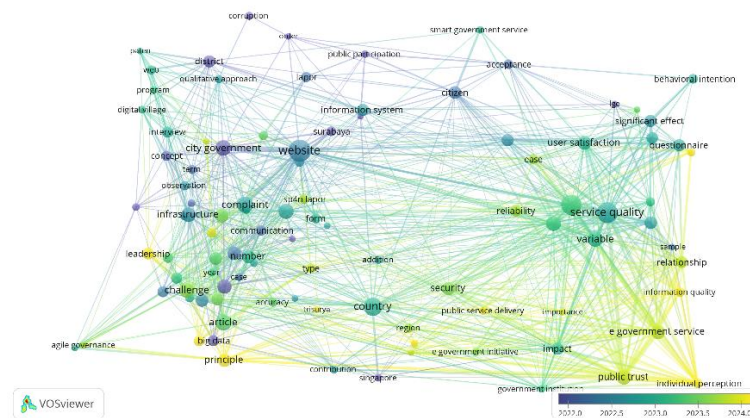
### *Bibliometric Mapping Analysis Using VOSviewer*

The findings of the VOSviewer study display a conceptual relationship map (co-occurrence analysis) between terms in publications from the Scopus database that focus on the topic of public services and e-government in Indonesia. Several key clusters that characterize the focus and direction of research in the subject of digital governance were generated by this mapping. The terms that dominate the first cluster suggest that the adoption and use of digital technologies in public bureaucracy continue to be the main focus of research. The second cluster aims to show that academics are paying attention to how well digitization works to increase public accountability and transparency in the bureaucracy. Keywords that characterize a change in research toward policy assessment and governance innovation can be found in the third cluster. The notion serves as a nucleus connecting a variety of other study topics surrounding it, as seen by the term's most central location and highest connection strength in the network visualisation and density view results. The close association also demonstrates how well information technology and good governance concepts are conceptually integrated. These results demonstrate the growing trend in national and international studies toward enhancing digital-based public governance that is responsible, transparent, and participatory. The theoretical importance of this work in bridging the gap between technological innovation and democratic principles in the Indonesian government is thus confirmed by this bibliometric analysis using VOSviewer, which also maps the research landscape.



**Figure 6.** Co-occurrence (Source: VOSviewer Analysis)

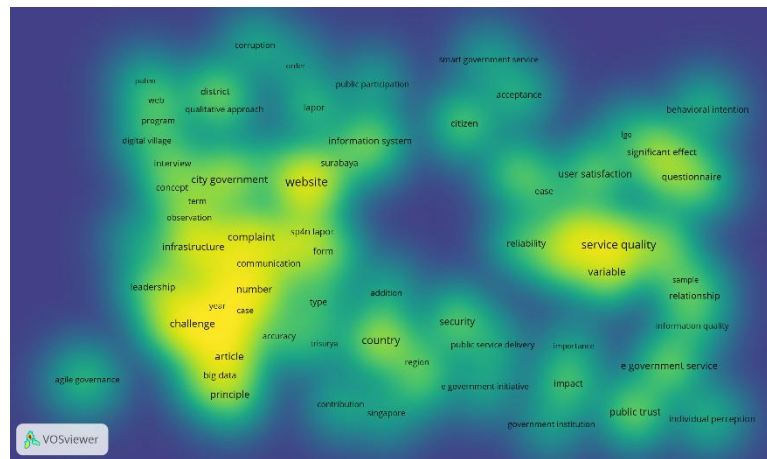
A keyword network visualisation map produced by bibliometric analysis using VOSviewer software is shown in Figure 6. The conceptual connections between study subjects that commonly occur together in Indonesian literature on e-government and public services are depicted in this map. Five major clusters, each denoting a distinct study focus, are shown by various colors based on the mapping results. The red cluster focuses on the terms “website”, “city government”, “complaint”, and “information system”, indicating scholarly interest in local government digital portals like LAPOR! and SP4N-Lapor! as well as public complaint service systems. With a focus on “infrastructure”, “leadership”, and “challenge”, the green cluster emphasizes the importance of bureaucratic leadership and digital infrastructure readiness in facilitating the transformation of e-government. Research focusing on service quality and public perceptions of the efficacy of government digitalization is also shown by the blue cluster, which displays phrases like “service quality”, “user satisfaction”, “public trust”, and “e-government service”. Terms like “country”, “principle”, and “big data”, which characterize the research’s shift toward cross-country policy analysis and the application of big data in public governance, are found in the yellow cluster. In the meantime, the purple cluster links terms like “citizen”, “acceptance”, and “public participation”, highlighting how crucial public acceptance and involvement are to the rollout of government digital services. The way these clusters are connected by connecting lines (link strength) demonstrates that e-government research in Indonesia encompasses social, institutional, and user behaviour factors in addition to technological ones. Large nodes like “service quality”, “website”, and “public trust” predominate, suggesting that public trust and the calibre of digital services are major concerns in Indonesian e-government literature. All things considered, this map shows how national and international research is shifting toward the integration of innovative information technology with open, participatory, and public governance that is focused on the needs of the general people.



**Figure 7.** Co-occurrence (Source: VOSviewer Analysis)

The findings of bibliometric analysis using VOSviewer software are displayed in the following density visualisation (Figure 7), which illustrates the frequency and correlations of keywords in literature on the topic of E-Government and Public Services in Indonesia during the years 2022–2024. The map’s colours show the degree of study density: green to blue sections show less intensively explored themes, while yellow areas show the most well-connected and often researched topics. This visualisation shows that the topics with the highest density are centred around keywords like “service quality”, “user satisfaction”, “public trust”, and “e-government service”. This suggests that, for the past three years, the main focus of e-government research in Indonesia has been on the issues of digital service quality and public trust. In contrast, the medium-density area is represented by keywords like “website”, “information system”, “city government”, and “complaint”, which show scholarly interest in public complaint systems, government digital infrastructure, and information disclosure platforms like LAPOR! and SP4N-Lapor!. However, phrases like “leadership”, “challenge”, and “principle” in the green area point to a new line of inquiry that is starting to emphasize leadership, institutional elements, and the principles of adaptive digital governance. A change in study focus from technical and infrastructure difficulties to public trust, citizen participation, and user pleasure as important indicators of e-government effectiveness is indicated by the colour gradient’s transition from blue (2022) to yellow (2024). Overall, this density visualization’s findings demonstrate that Indonesian e-government research trends are moving more and more in the direction of a human-centred governance approach, where the effectiveness of digital transformation is evaluated not just

by technology but also by how well digital systems can increase public trust, enhance service quality, and fortify government accountability and transparency.



**Figure 8.** Co-occurrence (Source: VOSviewer Analysis)

The findings of a density visualization created using the VOSviewer software are displayed above (Figure 8), demonstrating the frequency of occurrence and connections between terms in Indonesian literature on the subject of e-government and public services. Green to blue colours indicate areas with moderate to low density, while lighter colours (yellow) show places with high density or themes that appear most frequently and have significant links with other terms. Two primary density centres are visible based on the visualization results: the first one is centred on the keywords “website”, “ty government”, “complaint”, and “infrastructure”. This suggests that e-government research in Indonesia continues to place a significant emphasis on the technical dimensions of digital service delivery, public complaint systems, and the preparedness of local government infrastructure. It is confirmed that the focus of research has also shifted towards analysing the quality of digital services and public perception of the effectiveness of e-government in increasing public trust because the second density centre is situated in the area with the keywords “service quality”, “user satisfaction”, “e-government service”, and “public trust”. Furthermore, other categories like “leadership”, “challenge”, and “principle” point to new subjects, including the difficulties of bureaucratic leadership, digital governance principles, and ways to adapt to the government’s digital transformation. Overall, this density map shows that the integration of technology, governance, and public engagement is becoming more and more prominent in Indonesian e-government research trends. The preponderance of yellow in keyword categories like



“website” and “service quality” suggests that the current study has focused mostly on these two elements. As important markers of the success of e-government in Indonesia, this supports the conclusion that the digital transformation of government is focused not just on infrastructure provision but also on enhancing service quality, transparency, and public accountability.

### *Analysis of References Literature Review Using NVivo 12 Plus*

NVivo 12 Plus software was used for data analysis in this study to help with the methodical categorization, arrangement, and interpretation of qualitative data. Through the use of NVivo, researchers were able to find themes, patterns, and conceptual connections in the scientific papers and primary and secondary data that were gathered. Following the coding procedure, the researchers divided the data into a number of thematic categories. These categories were then examined to see how e-government policies enhance government accountability and data openness. NVivo 12 Plus is also used to carry out tasks that aid researchers in comprehending the relationship between important variables. For example, by using Hierarchy Chart Tools, Treemap Visualization, and word frequency cloud to visualize the relationship between themes, this tool offers a thorough picture of the attitudes, procedures, and difficulties in e-government implementation in Indonesia. The analysis's findings indicate that the subject took centre stage, with issues like these emerging as contributing elements to the policy's effective execution. Overall, because NVivo 12 Plus was able to combine multiple data sources into a single, standardized analytical framework, it greatly enhanced the validity and comprehensiveness of this study investigation. Using this method, the study offers an interpretive analysis that focuses on institutional structures, policy dynamics, and public reactions to digital innovation in Indonesian governance, in addition to providing a descriptive description of the phenomenon of e-government change.





**Figure 9.** Treemap Visualization (Source: NVivo 12 Plus)

In order to illustrate the frequency and prevalence of themes (nodes) that emerge in the research data collection, the above treemap visualization (Figure 9) was created using NVivo 12 Plus and thematic analysis. One major topic or sub-theme encoded from many data sources, including policy documents, SPBE reports, scientific publications, and interview results, is depicted in each box of the map. The number of references or degree of dominance associated with that theme is indicated by the box's size. The visualization map is dominated by the themes of “e-government”, “services”, and “government” as can be seen from the analysis results. This suggests that the primary subjects of discussion in the literature and empirical data examined are the aspects of digitizing public services and the role of government in digital transformation. Other themes like “public service”, “governance”, “transparency”, and “information” also show up in quite big quantities, suggesting that excellent governance and the transparency of public information are significant factors that are frequently linked to the adoption of e-government. The institutional dimension and bureaucratic efficiency that are the focus of initiatives to enhance public sector accountability are also revealed by topics like “administration,” “efficiency,” “technology,” and “institutions.” Furthermore, themes like “citizens,” “analysis,” “management,” and “service delivery” have emerged, indicating a focus on community involvement and the efficiency of government digital service delivery. Overall, Treemap NVivo 12 Plus's findings show that studies on Indonesia's e-government transformation include a wide range of topics, including technology, governance, citizen participation, and bureaucratic efficiency. The success of government digital transformation is dependent on the integration of the values

of accountability and transparency in the delivery of responsive and participatory public services, as well as on the advancement of technological systems. This visualization supports this conclusion.



**Figure 10.** Analisis Word Cloud (Source: NVivo 12 Plus)

The Word Cloud visualization results (Figure 10), which reveal the frequency of occurrence of words and key concepts in the research data collection from policy papers, SPBE reports, and scientific articles examined, were produced by text analysis using NVivo 12 Plus. Each word's magnitude in the Word Cloud represents its frequency and significance within the discussion's context. According to the visualization results, the terms "government" and "public" predominate on the map, suggesting that the main topic of discussion in the studied literature and documents is the role of government in putting digital public services into practice. Other words that also occur in big proportions, including "service," "governance," "transparency," "information," and "accountability," attest to the fact that the primary focus of this study is on initiatives to improve the bureaucracy's transparency and accountability through the transformation of e-government. Furthermore, the terms "digital," "efficiency," "research," "data," and "infrastructure" suggest that the adoption of electronic-based government systems places a high priority on the technological and efficacious aspects.

This graphic also uses the terms "citizens," "engagement," and "participation," which highlight the significance of the community's role as participatory actors in enhancing public accountability and transparency through digital interactions with the government. The emergence of terms like "policy," "implementation," "challenges," and "collaboration," on the other hand, suggests the dynamics involved in putting e-government policies into practice,

including difficulties with interagency coordination and bureaucratic adjustment to digital innovation. Overall, the findings of this NVivo 12 Plus Word Cloud demonstrate that digital governance is at the forefront of Indonesian academic and policy discourse on e-government, with a particular emphasis on three key areas: (1) the efficiency of technology-based public service delivery; (2) enhancing bureaucratic accountability and transparency; and (3) community engagement in the process of public oversight and participation. This graphic demonstrates that e-government transformation is a strategic tool to support Indonesia's good governance principles in addition to being a technology agenda.

According to the findings of a bibliometric study conducted with VOSviewer and Scopus Analyse, Indonesia has seen a notable surge in research on public services and e-government, particularly after the COVID-19 pandemic accelerated digitization. The emergence of keyword clusters like information system, public trust, service quality, and complaint demonstrates that research is not only focused on the technical aspects of creating digital service applications, but also on service quality, user satisfaction, and public trust as success factors.<sup>43</sup> This suggests a paradigm change away from only putting technology into practice and toward incorporating good governance principles.<sup>44</sup> In other words, the degree to which digital technologies can enhance bureaucratic responsibility in the provision of public services, increase public oversight mechanisms, and promote information transparency would have a significant impact on Indonesia's e-government transformation's success.

These conclusions are further supported by the thematic analysis results obtained with NVivo 12 Plus, which demonstrate the prevalence of topics like accountability, transparency,

---

<sup>43</sup> A P Lestari et al., "A Direct Path Modeling of Mobile Banking Systems on User Satisfaction," in *2022 IEEE 8th International Conference on Computing, Engineering and Design, ICCED 2022* (Bina Nusantara University, Binus Online Learning, Management Department, Jakarta, Indonesia: Institute of Electrical and Electronics Engineers Inc., 2022), <https://doi.org/10.1109/ICCED56140.2022.10010693>.

<sup>44</sup> M M Salim, D A A Ridha, and T M Jumaah, "The Role of Integration between Artificial Intelligence and Management Accounting Methods in Supporting Corporate Governance," *AgBioForum* 26, no. 3 (2024): 21–30.

government, public service, and information across a range of reference materials.<sup>45</sup> Academic discourse on e-government is inextricably linked to institutional problems, infrastructural preparation, bureaucratic capability, and citizen participation in the digital service ecosystem, as demonstrated by the Treemap and Word Cloud visualizations.<sup>46</sup> Therefore, the transition of e-government cannot be viewed as a technical modernization alone, but rather as a systemic shift that necessitates governmental agency collaboration, organizational adaptability, and changes in bureaucratic culture. Therefore, the government must enhance public digital literacy, promote inclusive and responsive collaborative governance models, and fortify data integration across agencies if it hopes to genuinely increase openness and accountability through e-government.

## Conclusion

According to this report, e-government transformation is strategically important for raising the accountability and transparency of Indonesia's public services. The government can improve public supervision, boost public faith in state institutions, and increase public access to information by digitizing bureaucratic procedures, integrating information systems, and offering electronic-based public services. The findings of a bibliometric study conducted with VOSviewer demonstrate that key issues such as information systems, public trust, service quality, and complaint handling have shaped Indonesian scholarly discourse on e-government. This suggests that the emphasis has shifted from only creating technology

---

<sup>45</sup> Y M Puja Nugraha and T Dwi Susanto, "Factors Influencing Government Employees to Adopt E-Government Innovation: Systematic Literature Review," in *2022 International Seminar on Application for Technology of Information and Communication: Technology 4.0 for Smart Ecosystem: A New Way of Doing Digital Business, ISemantic 2022* (Institut Teknologi Sepuluh Nopember, Department of Information System, Surabaya, Indonesia: Institute of Electrical and Electronics Engineers Inc., 2022), 249–56, <https://doi.org/10.1109/iSemantic55962.2022.9920391>.

<sup>46</sup> T Kohlborn, E Fieft, and M Boentgen, "One-Stop Government Portals: Transformation or Navigation?," in *Public Affairs and Administration: Concepts, Methodologies, Tools, and Applications*, vol. 3 (Queensland University of Technology, Australia: IGI Global, 2015), 1386–1408, <https://doi.org/10.4018/978-1-4666-8358-7.ch068>.

infrastructure to bolstering strong governance principles in the provision of digital public services.

Additionally, the findings of the theme analysis conducted with NVivo 12 Plus demonstrate that the literature and policies under study are centred around topics like bureaucratic accountability, information openness, citizen involvement, and governance. As a result, e-government transformation cannot be viewed as just technological innovation but also as institutional and social change that necessitates the development of data-based monitoring systems, capacity building among civil servants, and cultural adaptation in service delivery. Nevertheless, this study also identified issues such as disparities in digital literacy among the general population, gaps in digital infrastructure between areas, and a lack of data integration between organizations. Therefore, a thorough, cooperative, and long-term approach is necessary for the e-government revolution to be successful.

## References

- Agbozo, Ebenezer, and Benjamin K. Asamoah. "The Role of E-Government Systems in Ensuring Government Effectiveness and Control of Corruption." *R-Economy* 5, no. 2 (2019): 53–60. <https://doi.org/10.15826/recon.2019.5.2.006>.
- Agustina, N, M Naseer, H Gusdevi, and D A Rismayadi. "Development of a Public Complaint Classification Model to Support E-Government Using IndoBERT." In *2024 6th International Conference on Cybernetics and Intelligent System, ICORIS 2024*. Department of Informatics, Universitas Teknologi Bandung, Bandung, Indonesia: Institute of Electrical and Electronics Engineers Inc., 2024. <https://doi.org/10.1109/ICORIS63540.2024.10903819>.
- Aidi, A, I Avianti, P S Koeswayo, S Poulus, and S Mariam. "The Effect of an Inclusive Approach to Collaborative Governance and Its Impact on Digitizing the Quality of Public Services." *Cogent Business and Management* 11, no. 1 (2024). <https://doi.org/10.1080/23311975.2024.2392324>.
- Al-Shbail, T, and A Aman. "E-Government and Accountability: How to Mitigate the Disorders and Dysfunctions of Accountability Relationships." *Transforming Government: People, Process and Policy* 12, no. 2 (2018): 155–90. <https://doi.org/10.1108/TG-09-2017-0057>.

- Alshaikh, H B A. "A Comparative Analysis Of Public Accountability Mechanisms." *International Comparative Jurisprudence* 10, no. 2 (2024): 221–34. <https://doi.org/10.13165/j.icj.2024.12.004>.
- Androniceanu, Armenia, and Irina Georgescu. "E-Government in European Countries, a Comparative Approach Using the Principal Components Analysis." *NISPAcee Journal of Public Administration and Policy* 14, no. 2 (2021): 65–86. <https://doi.org/10.2478/nispa-2021-0015>.
- Baena Rojas, J J, C Sánchez García, and A D Grajales Ramírez. "A Bibliometric Approach to the Publications in the Field of International Business in the Scopus Database." *IBIMA Business Review* 2020 (2020). <https://doi.org/10.5171/2020.213756>.
- Cooper, J. "The Puzzle of Distrust." In *Congress and the Decline of Public Trust*, 1–26. Johns Hopkins University, United States: Taylor and Francis, 2018. <https://doi.org/10.4324/9780429501418>.
- Cristóvam, J S S, and J C L Bergamini. "The centrality of accountability concept as an instrument for implementing the sustainable Public Administration model." *A e C - Revista de Direito Administrativo e Constitucional* 21, no. 84 (2021): 87–108. <https://doi.org/10.21056/aec.v21i84.1372>.
- Efthymiou, I.-P. "The Role of E-Government and e-Governance in Modern Societies." In *Public Governance Practices in the Age of AI*, 45–68. University of Greenwich, United Kingdom: IGI Global, 2025. <https://doi.org/10.4018/979-8-3693-9286-7.ch003>.
- Fathonih, A, H Prabowo, S Hartati, and F Redjeki. "Transparency and Corruption: Does E-Government Effective to Combat Corruption?" *International Journal of Psychosocial Rehabilitation* 24, no. 4 (2020): 5396–5404. <https://doi.org/10.37200/IJPR/V24I4/PR201636>.
- Ferreira, A, and C Santos. "Digital Transformation in Public Sector: Systematic Literature Review." In *Enhancing Public Sector Accountability and Services Through Digital Innovation*, 265–88. University of Aveiro, Portugal: IGI Global, 2025. <https://doi.org/10.4018/979-8-3693-9251-5.ch008>.
- Hidayat, R. "Digital Governance And Transparency: How Open Data Initiatives Enhance Government Accountability." *Journal of Governance and Regulation* 14, no. 3 (2025): 194–204. <https://doi.org/10.22495/jgrv14i3art18>.



- Ingrams, A. "Transparency." In *Global Encyclopedia of Public Administration, Public Policy, and Go.: With 294 Figures and 229 Tables*, 6002–8. School of Public Affairs and Administration, Rutgers University - Newark, Newark, NJ, United States: Springer International Publishing, 2018. [https://doi.org/10.1007/978-3-319-20928-9\\_2256](https://doi.org/10.1007/978-3-319-20928-9_2256).
- Kao, C. "Evaluation and Improvement of E-Government: The Case of European Countries." In *2015 2nd International Conference on EDemocracy and EGovernment, ICEDEG 2015*, edited by Teran L., Teran L., Departamento de Ciencias de la Computacion Universidad de las Fuerzas Armadas (ESPE) Av. General Ruminahui s/n, Sangolqui, and Meier A., 104–7. Department of Industrial and Information Management, National Cheng Kung University, Tainan, Taiwan: Institute of Electrical and Electronics Engineers Inc., 2015. <https://doi.org/10.1109/ICEDEG.2015.7114488>.
- Khadafi, R, A Nurmandi, E J Hasibuan, M S Harahap, A Saputra, A Mahardika, and J R Izharasyah. "Assessing the Indonesian Government's Compliance with the Public Information Disclosure Law in the Context of COVID-19 Data Transparency." *Frontiers in Political Science* 6 (2024). <https://doi.org/10.3389/fpos.2024.1339506>.
- Kohlborn, T, E Fieft, and M Boentgen. "One-Stop Government Portals: Transformation or Navigation?" In *Public Affairs and Administration: Concepts, Methodologies, Tools, and Applications*, 3:1386–1408. Queensland University of Technology, Australia: IGI Global, 2015. <https://doi.org/10.4018/978-1-4666-8358-7.ch068>.
- Lestari, A P, Y Fernando, R B Ikhsan, and I S Wahyuni-Td. "A Direct Path Modeling of Mobile Banking Systems on User Satisfaction." In *2022 IEEE 8th International Conference on Computing, Engineering and Design, ICCED 2022*. Bina Nusantara University, Binus Online Learning, Management Department, Jakarta, Indonesia: Institute of Electrical and Electronics Engineers Inc., 2022. <https://doi.org/10.1109/ICCED56140.2022.10010693>.
- Li, J, and R Wei. "VOSviewer Application Status and Its Knowledge Base." *Journal of Library and Information Science in Agriculture* 34, no. 6 (2022): 61–71. <https://doi.org/10.13998/j.cnki.issn1002-1248.21-0843>.
- Liu, G, and Z Zhang. "Improving Public Service in Economic Downturns: Strategies from Three Governance Frameworks." In *Handbook of Public Service Delivery*, 340–58.

- Atlantic University, United States: Edward Elgar Publishing Ltd., 2024.  
<https://doi.org/10.4337/9781035315314.00029>.
- Makanga, C N, L K Orobias, T K Kaawaase, I N Nabeta, R K Mindra, and J C Munene. "Oversight Mechanisms and Public Accountability in an Emerging Economy." *Cogent Business and Management* 12, no. 1 (2025).  
<https://doi.org/10.1080/23311975.2025.2507216>.
- Melo, S. "New Public Management." In *Elgar Encyclopedia of Critical Management Studies*, 333–38. Queen's Management School, Queen's University Belfast, United Kingdom: Edward Elgar Publishing Ltd., 2025.  
<https://doi.org/10.4337/9781800377721.00082>.
- Oktaviani, R F, D P Faeni, R P Faeni, and R Meidiyustiani. "E-Budgeting for Public Finance Transparency and Accountability." *International Journal of Recent Technology and Engineering* 8, no. 2 Special Issue 4 (2019): 854–57.  
<https://doi.org/10.35940/ijrte.B11700782S419>.
- Pacios, A R, and S Martínez-Cardama. "A Comparison of Public Disclosure in Archives and Libraries Using TransPa\_BA." *Profesional de La Informacion* 32, no. 1 (2023).  
<https://doi.org/10.3145/epi.2023.ene.01>.
- Prifti, V, and D Sinoimeri. "Digital Transformation of Public Services in Albania: Evaluating the Impact of the e-Albania Platform." *WSEAS Transactions on Information Science and Applications* 22 (2025): 545–51.  
<https://doi.org/10.37394/23209.2025.22.45>.
- Puja Nugraha, Y M, and T Dwi Susanto. "Factors Influencing Government Employees to Adopt E-Government Innovation: Systematic Literature Review." In *2022 International Seminar on Application for Technology of Information and Communication: Technology 4.0 for Smart Ecosystem: A New Way of Doing Digital Business, ISemantic 2022*, 249–56. Institut Teknologi Sepuluh Nopember, Department of Information System, Surabaya, Indonesia: Institute of Electrical and Electronics Engineers Inc., 2022.  
<https://doi.org/10.1109/iSemantic55962.2022.9920391>.
- Pulubuhu, D A T, A A Unde, and S Sumartias. "E-Government Technology and the Policy Implications to Food Security in Conflict Area." In *IOP Conference Series: Earth and Environmental Science*, Vol. 681. Sociology Department, Social and Political Sciences

- Faculty, Universitas Hasanuddin, Indonesia: IOP Publishing Ltd, 2021. <https://doi.org/10.1088/1755-1315/681/1/012057>.
- Raaphorst, N, and S Van de Walle. "Trust in and by the Public Sector." In *The Routledge Companion to Trust*, 469–82. Institute of Public Administration, Leiden University, Netherlands: Taylor and Francis, 2017. <https://doi.org/10.4324/9781315745572>.
- Şahin, B. "Comparative Analysis of New Public Management Policies of Developed and Developing Countries." In *New Public Management in Turkey: Local Government Reform*, 267–85. Istanbul Governorship, Turkey: Taylor and Francis, 2016. <https://doi.org/10.4324/9781315641287-21>.
- Salim, M M, D A A Ridha, and T M Jumaah. "The Role of Integration between Artificial Intelligence and Management Accounting Methods in Supporting Corporate Governance." *AgBioForum* 26, no. 3 (2024): 21–30.
- Sampson, C, and L.-S. Wong. "Using Qualitative Data Analysis Software to Help Explore Critical Research Questions: A Tool, Not a Replacement." In *Handbook of Critical Education Research: Qualitative, Quantitative, and Emerging Approaches*, 637–54. Division of Educational Leadership and Innovation, Arizona State University, United States: Taylor and Francis, 2023. <https://doi.org/10.4324/9781003141464-38>.
- Saputra, A A, C I Ratnasari, and N W Rahayu. "Payroll System: Digital Transformation in Government (A Case Study of an Indonesian Social Service)." In *Smart Innovation, Systems and Technologies*, edited by So In C., Londhe N.D., Bhatt N., and Kitsing M., 379:531–42. Department of Informatics, Universitas Islam Indonesia, Yogyakarta, Indonesia: Springer Science and Business Media Deutschland GmbH, 2024. [https://doi.org/10.1007/978-981-99-8612-5\\_43](https://doi.org/10.1007/978-981-99-8612-5_43).
- Sarjito, A. "Leveraging Virtual Organizations for E-Government Effectiveness: A Case Study of Indonesia's SP4N-LAPOR! Program." *EJournal of EDemocracy and Open Government* 17, no. 3 (2025): 25–58. <https://doi.org/10.29379/jedem.v17i3.996>.
- Setyarto, D B, and L Judijanto. "The Role of E-Government in Increasing Transparency and Accountability of Public Administration in the Digital Era." *Edelweiss Applied Science and Technology* 9, no. 2 (2025): 1771–83. <https://doi.org/10.55214/25768484.v9i2.4908>.
- Setyawan, Y, A Erliyana, E Makarim, F A Sjarif, L R Dewi, and A N A Sukma. "Digital Government Post-Reform in Indonesia: Normative Developments and

- Implementation by State Organizing Institutions.” *Law Reform: Jurnal Pembaharuan Hukum* 21, no. 1 (2025): 155–79. <https://doi.org/10.14710/lr.v21i1.68556>.
- Sheoran, Sudesh, and Sanket Vij. “A Review of E-Government Assessment Frame-Works: E-Readiness, Adoption, Citizen Engagement and Quality.” *EJournal of EDemocracy and Open Government* 14, no. 2 (2022): 197–213. <https://doi.org/10.29379/jedem.v14i2.717>.
- Suradi, A, and H D Purnomo. “A Proposed Model for Assess E-Government Adoption in Local Government.” In *AIP Conference Proceedings*, edited by Firdaus R., Multazam M.T., Fudholi A., and Jamaaluddin null, Vol. 3167. Faculty of Computer Science, Universitas Widya Dharma, Klaten, Indonesia: American Institute of Physics, 2024. <https://doi.org/10.1063/5.0218211>.
- Tamilarasi, R, P N S Kumar, G S P Ghantasala, D N Rao, P Bathla, and G Gupta. “Machine Learning Challenges of E-Government Models of Cloud Computing in Developing Countries.” In *Proceedings of the 18th INDIAcom; 2024 11th International Conference on Computing for Sustainable Global Development, INDIACom 2024*, edited by Hoda M.N., 1804–9. Alliance University, Department of Computer Science and Engineering, Bengaluru, India: Institute of Electrical and Electronics Engineers Inc., 2024. <https://doi.org/10.23919/INDIACom61295.2024.10498915>.
- Tariq, M U. “Digital Accountability: Revolutionizing Public Sector Transparency and Service Delivery.” In *Enhancing Public Sector Accountability and Services Through Digital Innovation*, 129–54. Abu Dhabi University, United Arab Emirates: IGI Global, 2025. <https://doi.org/10.4018/979-8-3693-9251-5.ch004>.
- Tchao, E T, E Keelson, C Aggor, and G A M Amankwa. “E-Government Services in Ghana - Current State and Future Perspective.” In *Proceedings - 2017 International Conference on Computational Science and Computational Intelligence, CSCI 2017*, edited by Tinetti F.G., Tran Q.-N., Deligiannidis L., Yang M.Q., Yang M.Q., and Arabnia H.R., 624–31. Dept of Computer Engineering, KNUST, Kumasi, Ghana: Institute of Electrical and Electronics Engineers Inc., 2018. <https://doi.org/10.1109/CSCI.2017.108>.
- Trinkley, K E, R J Guerin, J Pittman, A G Huebschmann, R E Glasgow, and B A Rabin. “Applying the Practical, Robust Implementation and Sustainability Model.” In

- Implementation Science: Theory and Application*, 193–206. University of Colorado, Department of Family Medicine, United States: Taylor and Francis, 2024. <https://doi.org/10.4324/9781003318125-19>.
- Wagola, R, A Nurmandi, and D Subekti. “Government Digital Transformation in Indonesia.” In *Communications in Computer and Information Science*, edited by Stephanidis C., Antona M., Ntoa S., and Salvendy G., 1835 CCIS:286–96. Department of Government Affairs and Administration, Yogyakarta Muhammadiyah University, Yogyakarta, Indonesia: Springer Science and Business Media Deutschland GmbH, 2023. [https://doi.org/10.1007/978-3-031-36001-5\\_37](https://doi.org/10.1007/978-3-031-36001-5_37).
- Walle, S Van de. “NPM: Restoring the Public Trust through Creating Distrust?” In *The Ashgate Research Companion to New Public Management*, 309–20. Erasmus University, Rotterdam, Netherlands: Taylor and Francis, 2016. <https://doi.org/10.4324/9781315613321-31>.
- Yigzaw, G S. “Collaborative Governance: A New Paradigm Shift for the Smart Cities.” In *Examining the Socio-Technical Impact of Smart Cities*, 1–35. Department of Governance and Development Studies, Bahir Dar University, Ethiopia: IGI Global, 2021. <https://doi.org/10.4018/978-1-7998-5326-8.ch001>.
- Zhang, Mengzhong, and Manpreet Kaur. “Toward a Theory of E-Government: Challenges and Opportunities, a Literature Review.” *Journal of Infrastructure, Policy and Development* 8, no. 10 (2024). <https://doi.org/10.24294/jipd.v8i10.7707>.
- Zia ud din, M, X Yuan yuan, N U Khan, and H Han. “Linking Local Collaborative Governance and Public Service Delivery: Mediating Role of Institutional Capacity Building.” *Humanities and Social Sciences Communications* 10, no. 1 (2023). <https://doi.org/10.1057/s41599-023-02421-3>.