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Digital Bureaucracy, Transparency, and Public Trust in Government A Systematic Literature Review

Abstract: The study examines the growing role of digital bureaucracy in transforming public administration by enhancing efficiency, transparency, and public trust. The purpose of the research is to analyze how digital tools, such as e-government platforms, AI, and data analytics, have reshaped bureaucratic systems and their relationship with citizens. A systematic literature review methodology was employed, reviewing studies that assess the integration of digital technologies in government operations. The findings reveal that while digital transformation significantly improves service delivery and transparency, it also introduces challenges, such as the digital divide and concerns over data privacy and security. Digital platforms, by making government processes more accessible, foster greater public trust, yet these tools must be inclusive and secure to prevent alienating marginalized groups. The research suggests that governments need to address digital exclusion through investments in infrastructure and digital literacy programs, and prioritize data protection measures to maintain public trust. The implications of this study are far-reaching, urging policymakers to ensure the equitable distribution of digital services and the ethical use of technology, which is crucial for fostering a well-informed, engaged, and trustful relationship between the government and citizens.

Keywords: Digital Bureaucracy, Transparency, and Public Trust

INTRODUCTION

The rise of digital bureaucracy has emerged as a pivotal force reshaping the way public administration operates in the 21st century (Parent et al., 2005). This transformation is driven by the increasing adoption of digital technologies within the public sector to enhance governance, improve transparency, and foster greater public trust in government institutions (Persson & Goldkuhl, 2010). A systematic literature review reveals the multifaceted impacts of digital bureaucracy on transparency, trust, and the efficiency of public administration. As governments worldwide embrace digital tools, such as e-government platforms, artificial intelligence, and data analytics, these changes are

reshaping not only the operational structure of bureaucracies but also their relationship with citizens (S. Grimmelikhuijsen, 2012).

The concept of digital bureaucracy involves the integration of digital technologies to streamline government processes, making them more efficient, transparent, and responsive to public needs. This shift from traditional administrative systems to digital forms of governance reflects a broader global trend toward digitalization in the public sector (Persson & Goldkuhl, 2010). The use of digital platforms allows governments to manage vast amounts of data, automate decision-making processes, and enhance service delivery. However, these transformations are not without challenges, including issues related to data privacy, digital divides, and the readiness of public servants to embrace these technologies (Parent et al., 2005).

The primary goal of digital bureaucracy is to enhance transparency in government operations. Transparency, in this context, refers to the openness of government actions, policies, and decision-making processes. Transparency is crucial for building public trust, as it allows citizens to hold their governments accountable for their actions. As governments adopt digital tools, they can more easily disseminate information to the public, making governmental processes more accessible and understandable (Grigorescu, 2007). According to Cordella (2007), increasing transparency through digital means can significantly enhance the perceived trustworthiness of government organizations. This aligns with the findings of Grimmelikhuijsen and Meijer (2014), who observed that digital participation platforms allow citizens to engage more actively in the decision-making process, ultimately fostering trust in local government.

The role of e-government platforms in promoting transparency cannot be overstated. These platforms enable governments to provide citizens with real-time access to information about policies, budgets, and administrative decisions (S. G. Grimmelikhuijsen & Meijer, 2014). By ensuring that information is readily available, e-government platforms facilitate a more informed citizenry, which in turn contributes to a more engaged and participatory public (Kim & Lee, 2012). Moreover, transparency through digital platforms can also reduce opportunities for corruption, as it limits the discretion of bureaucrats and enhances oversight mechanisms (Mappisabbi, 2024).

However, the challenge of ensuring transparency through digital bureaucracy goes beyond the mere availability of information. It requires a concerted effort to design and implement systems that promote the flow of accurate and relevant data (Albu & Flyverbom, 2016). Governments must invest in developing platforms that are user-friendly, accessible, and capable of handling the complexities of modern governance (Ahmad, 2025). While transparency is essential, the issue of public trust in government is equally important. Trust is a foundational element of democratic governance, as it shapes citizens' willingness to engage with government institutions and participate in civic life. The literature suggests that transparency and trust are deeply intertwined. According to Androniceanu (2021), the more transparent government actions are, the more likely citizens are to trust their leaders. Transparency helps demystify governmental processes, making them more predictable and fair. As governments embrace digital tools, they can offer greater transparency, which in turn builds public trust (Virnandes et al., 2024).

The relationship between digital bureaucracy and public trust is complex, as it depends on several factors, including the effectiveness of the technology, the integrity of the information provided, and the perceived accountability of government officials (Steege et al., 2016). Public trust is not solely based on the availability of information but also on the accuracy and reliability of that information (Malizal & Pratama, 2025). Moreover, trust is influenced by the public's perception of how government officials use digital tools. If citizens believe that digital platforms are being used to benefit the public, they are more likely to trust their government. On the other hand, if these tools are seen as tools of control or manipulation, they may erode trust (Aneta et al., 2025).

Another crucial aspect of digital bureaucracy is its impact on government efficiency. The automation of bureaucratic processes can significantly reduce the time and resources required to manage government functions (Castillo, 2021). Digital tools allow governments to streamline operations, making them more agile and responsive to public needs. In particular, artificial intelligence and machine learning algorithms are being increasingly used to automate decision-making processes, which can lead to faster and more accurate outcomes. This reduction in administrative overhead can also free up resources that can be redirected toward other important initiatives, such as public health or education (Vogl et al., 2019).

While the digital transformation of bureaucracy has the potential to enhance efficiency, it also presents challenges related to the discretion of public servants. In traditional bureaucratic systems, public officials often have considerable discretion in decision-making (Paulin et al., 2016). This discretion allows for flexibility in responding to complex or unique situations but can also lead to inconsistencies and bias. In a digital bureaucracy, decision-making processes are increasingly automated, reducing the scope for individual discretion (Indartuti & Sukristyanto, 2022). While this can improve efficiency and consistency, it also raises concerns about the loss of human judgment in decision-making processes. As Rihi et al. (2025) point out, finding a balance between efficiency and discretion is one of the most significant challenges in the digital transformation of bureaucracy.

Furthermore, digital bureaucracy can affect the culture within public administration. The integration of digital tools into governmental processes often necessitates a shift in organizational culture (Nyeleker et al., 2024). Bureaucracies are traditionally hierarchical, with strict rules and procedures governing behavior. Digitalization, on the other hand, tends to promote more decentralized and flexible organizational structures (Anggara et al., 2024). As such, the implementation of digital technologies can disrupt established practices and require bureaucrats to develop new skills and adapt to new ways of working. This cultural shift can be met with resistance, as public servants may feel threatened by the changing dynamics of their roles (Meilani & Hardjosoekarto, 2020).

One of the major challenges of digital bureaucracy is the risk of deepening digital divides. Not all citizens have equal access to digital technologies, and this inequality can exacerbate existing disparities in access to public services (Lekkas & Souitaris, 2023). Digital platforms may inadvertently exclude marginalized groups, such as the elderly, low-income

families, and rural populations, who may lack access to the necessary tools or skills to navigate digital platforms (Muhlbauer, 2004). Governments must take steps to ensure that digital transformation does not leave certain segments of the population behind. This may involve investing in digital literacy programs, providing access to affordable technology, and ensuring that offline alternatives to digital platforms remain available for those who need them (Akbar et al., 2025).

In addition to these challenges, there are also concerns about data privacy and security. As governments collect and store large amounts of data on citizens, ensuring the security and privacy of this information becomes paramount. Digital bureaucracy relies heavily on data, and any breach of privacy or misuse of information can severely damage public trust (Huber & Ting, 2021; Parent et al., 2005). Governments must implement robust cybersecurity measures to protect citizens' personal data and ensure that digital platforms are secure. Furthermore, transparency about how data is collected, stored, and used is essential to maintaining public trust (Parent et al., 2005).

The digital transformation of bureaucracy also has implications for the relationship between government and civil society. Digital platforms offer new opportunities for citizens to participate in governance processes, such as through e-participation and online consultations (Persson & Goldkuhl, 2010). These platforms allow citizens to provide feedback on government policies, suggest improvements, and engage in discussions about key issues. As a result, digital bureaucracy can facilitate more inclusive and participatory governance. However, for this to be effective, governments must ensure that digital platforms are accessible, user-friendly, and capable of engaging citizens in meaningful ways (Fountain, 2007).

The implementation of digital bureaucracy has also led to the emergence of new governance models, such as smart governance and digital government. These models emphasize the use of digital technologies to enhance the efficiency, transparency, and accountability of government operations (S. Grimmelikhuijsen, 2012). Smart governance focuses on the integration of digital tools with urban planning, infrastructure management, and service delivery, creating smart cities that are more sustainable and responsive to the needs of residents (Grigorescu, 2007). Digital government, on the other hand, focuses on the use of e-government platforms to improve public administration and enhance citizen engagement. Both models rely heavily on data and technology to drive decision-making processes and improve public sector performance (Cordella, 2007).

As the digital transformation of bureaucracy continues to unfold, it is essential for governments to carefully consider the implications of these changes on democratic governance. Digital bureaucracy has the potential to enhance the efficiency, transparency, and trustworthiness of government institutions (S. G. Grimmelikhuijsen & Meijer, 2014). However, it also raises important questions about the balance between automation and human judgment, the potential for digital exclusion, and the risks associated with data privacy and security. Future research should focus on exploring these challenges in greater depth and providing recommendations for how governments can navigate the complexities of digital transformation while maintaining public trust (Mappisabbi, 2024).

METHOD

The flowchart above outlines the systematic process used for selecting articles in a literature review. The process begins with Stage 1: Identification, where a total of 125 articles were collected, including 47 from Google Scholar and 78 from Semantic Scholar. In Stage 2: Screening, 23 non-English articles were excluded, leaving 102 articles that met the inclusion criteria. In Stage 3: Eligibility, 20 articles identified as duplicates were removed, leaving 82 unique articles for the next phase. Finally, in Stage 4: Included, a quality assessment was conducted, resulting in the exclusion of 52 articles that did not meet the standards, leaving 30 articles eligible for inclusion in the systematic review. This process ensures that only relevant and high-quality sources are selected for analysis.

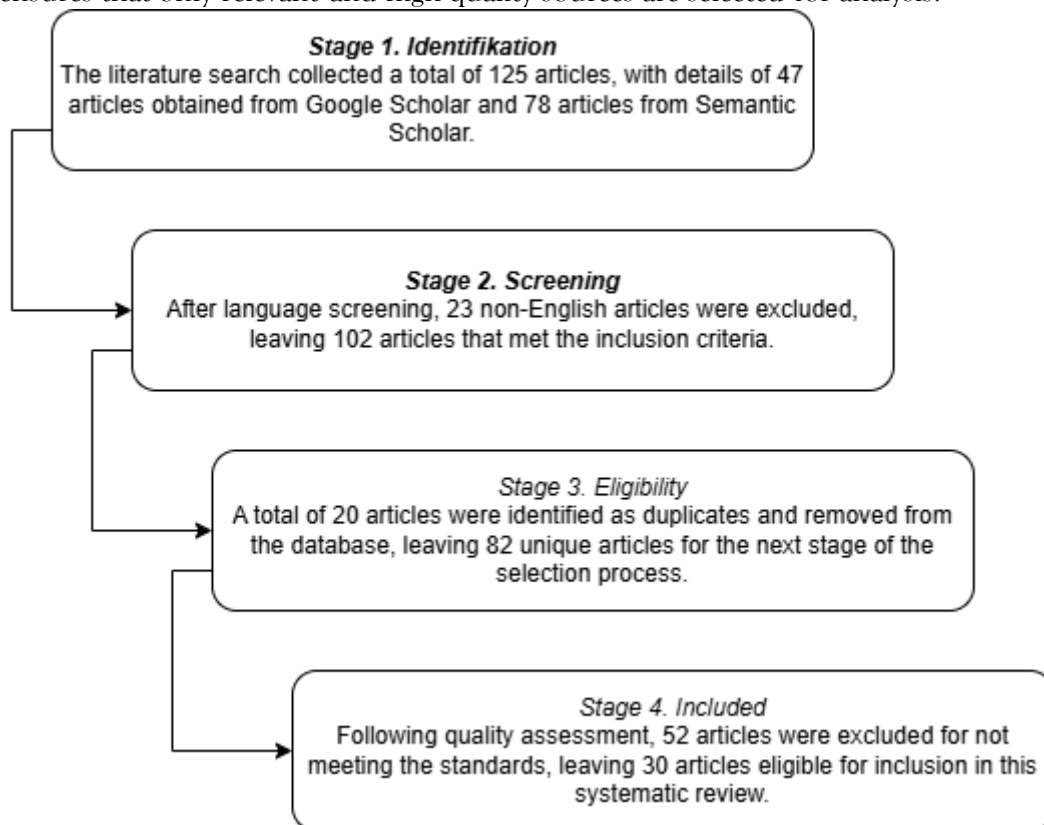


Figure 1. Article selection

RESULTS AND DISCUSSION

The discussion contains theories that assist researchers in analyzing data to make a brief summary or synopsis of the data and relationships and to suggest trying new things or even giving birth to new theories. There are at least three functions of theory that have been agreed upon by scientists, namely: (a) describing, (b) explaining, and (c) predicting. The Arabic-Latin transliteration refers to the Arabic-Indonesian transliteration according to the 3 Ministerial Decree.

The discussion also contains sub-chapters as research results

This chapter contains research findings and discussion (can be described in sub-chapters). Write down the findings obtained from the results of research that have been carried out, and they must be supported by adequate data. Research results and findings must be able to answer questions/problems and be in accordance with the research objectives in the introduction. If there is a table, it is written in the following format:

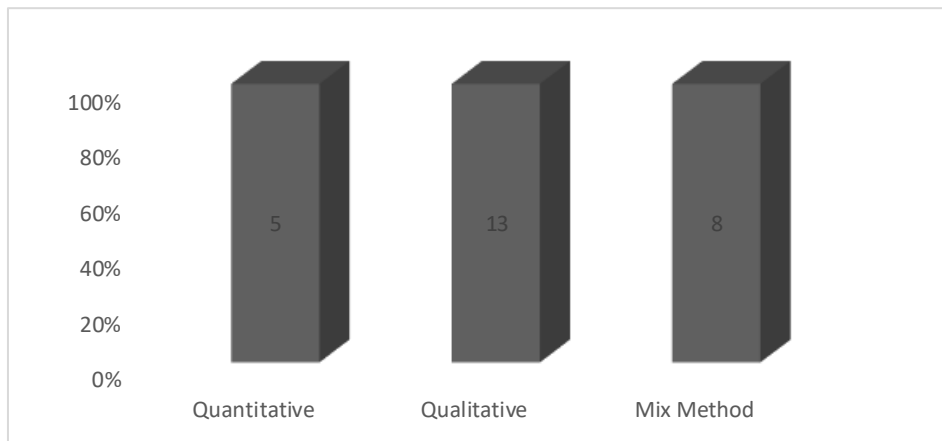
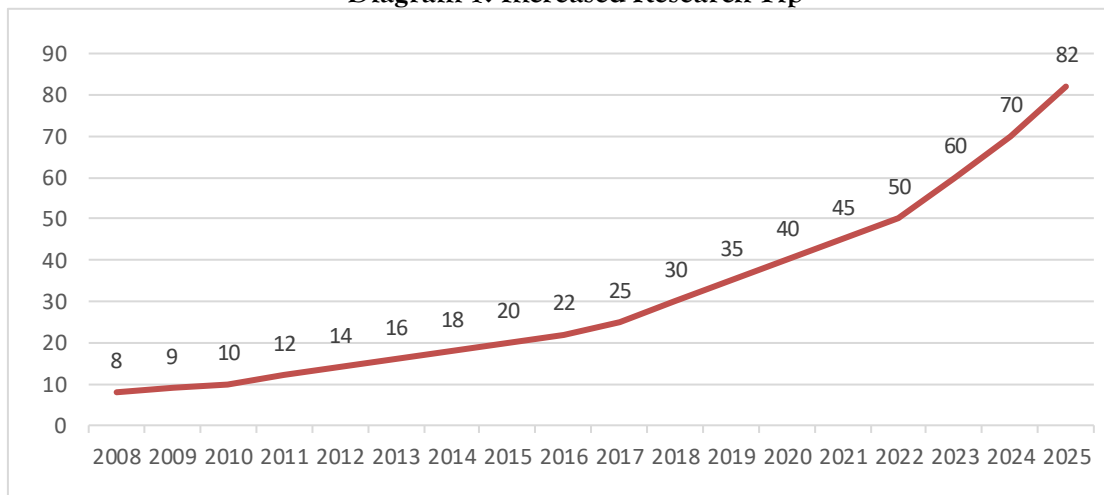


Figure 2 Application Research Method

The bar chart above shows the distribution of research methods used in a certain dataset, categorized into three groups: Quantitative, Qualitative, and Mixed Methods. The chart highlights that the majority of the studies (13 out of 26) employed a Qualitative research method, which accounts for the largest proportion. The Mixed Methods category follows with 8 studies, while Quantitative methods are the least used, with only 5 studies. This visualization provides a clear understanding of the preference for qualitative approaches in the sample, with a substantial, though smaller, portion of research combining both quantitative and qualitative methods, and a relatively minimal use of strictly quantitative approaches.

Diagram 1. Increased Research Tip



The line chart above illustrates a steady upward trend in a particular measure (likely related to a number or a count) over the span of several years, from 2008 to 2025. The value starts at 8 in 2008 and gradually increases, with a particularly sharp rise beginning around 2017. By 2025, the value reaches 82, representing a significant growth compared to the earlier years. This indicates a consistent and accelerating growth trajectory, especially in the later part of the period. The steep slope in the latter years suggests a potential surge or major development during this time, highlighting an important shift or expansion in the data represented.

Table 1: Result of Resheard

Author	Purpose	Method	Findings
(Castillo, 2021)	Understand the relationship between digitalization and public sector employment.	Panel data analysis (European countries, 2008-2018).	Digitalization is positively correlated with public sector employment, especially professionals. Negative correlation found for technicians.
(Aneta et al., 2025)	Explore how AI determines the flexibility, accountability, and effectiveness of bureaucracy in Gorontalo Province.	Qualitative research with in-depth interviews in Gorontalo.	AI plays a key role in algorithmic bureaucracy, automating discretionary functions and improving decision-making.
(Malizal & Pratama, 2025)	Examine regional disparities, digital participation, and citizen trust in Indonesia.	Quantitative analysis (EGDI scores, governance metrics, citizen trust).	Effective digital governance requires citizen-centric design, transparency, and infrastructure policy alignment.
(Nyeleker et al., 2024)	Foster digitally smart employees for world-class bureaucracy in Indonesia.	Qualitative case study with secondary data analysis.	SmartASN's transformational impact is seen in HR policies and work systems, aligning with legal reforms and resource requirements.
(Nenobais et al., 2023)	Evaluate the effectiveness of online population administration services.	Descriptive qualitative method with an interactive model from Miles and Heberman.	Success and improvements have been noted in population administration services.
(Indartuti & Sukristyanto, 2022)	Evaluate the role of technological innovation in	Descriptive qualitative research using secondary data.	Technological innovation has improved the effectiveness, efficiency, and openness of services,

	improving public service processes.		especially in permitting processes (14-30 days).
(Rihi et al., 2025)	Investigate challenges in implementing the Electronic-Based Government System (SPBE) in Sabu Raijua Regency.	Qualitative approach with in-depth interviews, field observations, and document analysis.	Key challenges include policy barriers, institutional limitations, infrastructure issues, and application system weaknesses. SPBE enhances innovation and public participation.
(Paulin et al., 2016)	Discuss challenges in the intersection of society, technology, and governance beyond e-governance research.	Workshop-based approach.	Discusses challenges in the intersection of governance, technology, and society.
(Vogl et al., 2019)	Explore the growth of data science and its impact on local government work in the UK.	Empirical research (Data Science for Local Government project).	Local authorities are overcoming challenges, applying Algorithmic Bureaucracy in government processes.
(Albu & Flyverbom, 2016)	Conceptualize organizational transparency across three dimensions.	Literature review using Scopus, Web of Science, and Google Scholar.	Proposes a distinction between verifiability and performativity in organizational transparency.
(Agustina & Ardi, 2021)	Investigate the role of unrealistic optimism bias and public trust in non-compliance behavior during the COVID-19 pandemic.	This quantitative research involved 740 participants in Indonesia with an age range of early adulthood (18-25 years). Data were analyzed using stepwise regression techniques.	Simultaneously together with optimism bias contributes to non-compliance. However, this research found that higher trust in government (especially in aspects of integrity and benevolence) can actually increase the adoption of health behaviors if managed with transparent communication
(Anggara et al., 2024)	Provide a framework for implementing digital service transformation in the public sector.	Theoretical approach (meta-synthesis) and empirical approach (surveys and interviews).	Meta-synthesis and surveys identify strategies for implementing digital service transformation across public institutions.

(Meilani Hardjosoekarto, 2020)	&	Analyze disaster risk reduction by measuring actor contributions post-Sunda Strait calamity.	Social Network Analysis (Gephi Software), Correspondence Analysis (SPSS), and digital questionnaires.	Weak integration of early warning systems in disaster management, providing theoretical contributions to digital disaster risk reduction.
(Lekkas Souitaris, 2023)	&	Examine the impact of decentralized management approaches (e.g., platforms) on bureaucratic authority systems.	Multiple-case methodology with within-case and cross-case analysis.	Platform governance creates organizational tensions within municipal governments and their external partners.
(Winarni Bundianto, 2024)	&	Analyze bureaucratic digitalization and good governance in post-New Order Indonesia.	Qualitative narrative literature review.	Indonesia has made progress in digital regulation but faces structural and institutional constraints.
(Ahmad, 2025)		Evaluate the impact of transparency and accountability reforms on public trust in Pakistan's public sector institutions.	Qualitative research with semi-structured interviews.	Public trust requires transparency and accountability reforms; international examples show the importance of independent boards, outcome-based financing, and strong audit systems.
(Androniceanu, 2021)		Identify the degree of transparency in Romanian government ministries.	Public data analysis and online questionnaires.	Ministries have made progress in ensuring transparency but face ongoing challenges in administrative transparency.
Virnandes et al., 2024		Explore how digital government transformation (DGT) can generate trust.	Qualitative approach with semi-structured interviews with Indonesian government employees.	DGT enhances trust through digital capability, governance, leadership, organizational partnerships, and transparency.
(Steegeen et al., 2016)		Study the effects of digital transparency on citizen trust in government.	Empirical research supported by KU Leuven research fund.	Digital transparency increases citizen trust in government organizations, especially in improving transparency outcomes.
Parent et al., 2005		Test the relationship between internet	Internet-based survey of Canadian voters.	Trust in government is influenced by prior

	transparency and trust in government.		knowledge and political self-efficacy.
(Meijer, 2013)	Provide a framework for assessing government transparency.	Framework for development.	Introduces a structured framework for contextual assessment of government transparency.
(Paselle et al., 2025)	Analyze theories, policies, and studies on e-government implementation in various countries.	Qualitative approach (library research method).	E-government significantly reduces corruption, improves efficiency, and expands public involvement, though it faces challenges in implementation.
(Grigorescu, 2003)	Explore transparency in international organizations and its impact on government transparency.	Comparative analysis.	Factors affecting transparency in international organizations mirror those at the domestic level.
(Cordella, 2007)	Examine the role of e-government in improving public administration services.	Conceptual framework on e-government and public administration.	E-government improves service speed, transparency, and accountability, but can alter the nature of public services when enforced under new public management policies.
(S. Gimmelikhuijsen, 2012)	Study the relationship between transparency and perceived trustworthiness in government organizations.	Online experiment with a municipality's citizen panel.	Prior knowledge and predisposition to trust are crucial in understanding the relationship between transparency and trustworthiness.

1. Digital Transformation in Bureaucracy

The first theme of digital transformation in bureaucracy reflects a profound shift in the way public administration operates, driven largely by the adoption of digital tools and technologies. In the past, bureaucratic systems were often characterized by rigid hierarchies, slow decision-making processes, and a heavy reliance on manual work and paperwork (Parent et al., 2005). These traditional systems, while functional in many ways, were also marked by inefficiencies, delays, and a lack of responsiveness to the rapidly changing needs

of the public. However, with the advent of digital technologies such as e-government platforms, artificial intelligence (AI), and data analytics, the public sector is undergoing a significant transformation that aims to enhance efficiency, streamline administrative processes, and make governments more responsive to public demands (Persson & Goldkuhl, 2010).

This transformation is not just about implementing new technologies but also reshaping the very culture of bureaucracy. Traditional bureaucratic practices, often associated with slow, top-down decision-making, are being replaced by more agile, decentralized, and technology-driven models (Meijer et al., 2018). Digital systems allow public administration to move from a focus on procedure and control to one of results and service delivery. AI and data analytics, for example, enable governments to analyze vast amounts of data quickly, providing real-time insights that can inform policy decisions and improve service delivery (Paselle et al., 2025). Automation of routine tasks reduces human intervention, freeing up public servants to focus on more complex issues and allowing for quicker responses to citizen needs. This shift is making bureaucracies more efficient and less burdened by outdated processes, ultimately leading to better service outcomes for citizens (Fountain, 2007).

However, the adoption of digital tools in the public sector brings with it a number of challenges and complexities. One of the central challenges is the issue of organizational adaptation (S. Grimmelikhuijsen, 2012). Traditional bureaucratic structures, with their hierarchical decision-making processes, are not naturally aligned with the decentralized and flexible models required for successful digital transformation. The introduction of digital platforms often necessitates a shift in organizational culture and structure. For example, as noted by (Grigorescu, 2007), digital systems tend to promote a more networked, horizontal organizational model, where decision-making is more collaborative and data-driven rather than based on rigid hierarchical lines. This shift can create resistance within the bureaucracy, as employees may be accustomed to more traditional ways of working. Furthermore, the digitalization of public administration may require new skills, competencies, and an overall shift in mindset, especially among employees who are not familiar with new technologies. The integration of digital tools requires that public servants undergo training and upskilling to keep pace with technological advancements (Cordella, 2007).

While the promise of digital transformation is substantial, it also introduces new ethical concerns and challenges, particularly in relation to discretion and decision-making. As governments move towards more automated systems, AI and machine learning algorithms are increasingly being used to make decisions that were once within the domain of human judgment (S. G. Grimmelikhuijsen & Meijer, 2014). These systems can process large datasets, identify patterns, and generate insights far more efficiently than human workers. However, as Vogl et al. (2019) argue, the reliance on algorithms to make decisions introduces the risk of algorithmic biases. These biases can arise from the data used to train AI systems, reflecting historical inequalities or prejudices that the system might inadvertently perpetuate (Kim & Lee, 2012). Moreover, there is concern that the growing reliance on automated systems in decision-making may lead to the loss of human judgment,

particularly in complex or sensitive situations where nuance and context are important. This raises the question of how much discretion should be afforded to machines, and how much should remain in the hands of human administrators. For instance, a purely automated system might be efficient in processing benefits claims, but it might fail to account for the personal circumstances of applicants, leading to decisions that feel impersonal or unjust to the public (Mappisabbi, 2024).

Moreover, the ethical concerns surrounding AI in bureaucracy are not limited to biases in decision-making. The use of AI to handle sensitive public data and automate decision-making processes also raises significant issues regarding data privacy and security. The vast amount of data processed by government systems, from personal identification numbers to health records, increases the risk of breaches and misuse (Albu & Flyverbom, 2016). Ensuring that AI systems are transparent, fair, and accountable is paramount to maintaining public trust in the digital transformation of bureaucracy. Without proper safeguards, the move towards digital bureaucracy could exacerbate inequalities or even infringe on citizens' rights (Ahmad, 2025).

2. Transparency and Accountability

The second theme explores the vital role that transparency plays in the context of digital governance. As governments increasingly adopt digital tools, such as e-government platforms and digital databases, they gain the ability to provide real-time, accessible information to citizens about various governmental actions, including policies, budgets, decision-making processes, and administrative decisions (Androniceanu, 2021). This shift to digital systems fundamentally changes the relationship between government institutions and the public. It creates an environment where government actions become more visible and comprehensible, promoting openness and accountability. Transparency, in this sense, is not merely about making information available but also about enabling citizens to engage with and scrutinize government decisions in ways that were previously difficult or impossible in traditional bureaucratic systems (Agustina & Ardi, 2021).

One of the most significant impacts of digital transparency is that it allows citizens to monitor government activities more effectively, which, in turn, holds public officials accountable for their actions. As governments move towards digital platforms, they increasingly offer real-time access to information that was once locked behind bureaucratic barriers. For instance, e-government platforms provide access to public budgets, the status of public contracts, and the outcomes of government policies (Ahmad, 2025). This ease of access enables citizens to assess how well public resources are being spent, how policies are being implemented, and whether government officials are performing their duties effectively. (Androniceanu, 2021) argue that such transparency mechanisms are fundamental for holding public officials accountable and ensuring that governmental operations are aligned with the public's best interests. By making government actions more visible, citizens can more easily identify inefficiencies, mismanagement, or corruption within government systems, thus enabling more effective citizen oversight (Virnandes et al., 2024).

Transparency through digital platforms also plays a crucial role in reducing corruption. When government processes are open and easily accessible, the opportunities for illicit activities, such as bribery, nepotism, and fraud, diminish. (Steege et al., 2016) argue that the core benefit of digital transparency lies in its ability to expose hidden processes and eliminate the opacity that allows corruption to thrive. With transparent systems, every stage of a process, from decision-making to the allocation of resources, is traceable, which deters corrupt behaviors by increasing the likelihood of detection (Malizal & Pratama, 2025). For example, public procurement processes, which have historically been vulnerable to manipulation and favoritism, can now be monitored and audited by the public and independent watchdog organizations, reducing the scope for corruption. Similarly, budget allocations and spending can be tracked, ensuring that funds are used for their intended purposes, leading to greater public confidence in the integrity of government institutions (Aneta et al., 2025).

However, while the potential for increased transparency is significant, there are several challenges that arise in ensuring the accuracy and clarity of the information that is provided. Castillo (2021) highlight that simply making data available is not enough; it must also be presented in a manner that is clear, accurate, and understandable to the public. The complexity of government data and the often technical language used in official documents can create barriers to effective transparency (Paulin et al., 2016). For example, if budgetary information or policy decisions are made available in formats that are difficult for the average citizen to comprehend, the intended transparency may not translate into increased accountability or trust. Governments must, therefore, not only provide access to information but also ensure that the information is accessible and usable, through clear formatting, summaries, and explanatory notes, especially for those who may not have specialized knowledge (Indartuti & Sukristyanto, 2022).

(Nyeleker et al., 2024) underscores that the quality of information and how it is communicated to the public are central to the effectiveness of digital transparency initiatives. Governments must prioritize the presentation of accurate, timely, and relevant data while ensuring that their communications are clear and contextually appropriate. The effectiveness of digital transparency is also contingent upon the public's ability to interpret and act upon the information provided (Anggara et al., 2024). This creates a responsibility for governments to provide guidance on how to understand the information and to foster digital literacy among citizens, enabling them to engage critically with the data. Moreover, governments must invest in building trust in the data provided, as inaccurate or misleading information could undermine the very goal of transparency. For example, if discrepancies or errors are found in publicly available data, it can erode trust in both the government and the digital tools used for transparency (Meilani & Hardjosoekarto, 2020).

The relationship between digital transparency and accountability extends beyond the government's direct interactions with citizens. Increased transparency also fosters a culture of openness and responsiveness within government organizations. When public officials know that their actions are open to public scrutiny, they are more likely to act with integrity and make decisions that align with the public interest (Winarni & Bundianto, 2024). This can lead to more ethical behavior and greater adherence to the rule of law.

Moreover, by allowing citizens to engage with the data and participate in public debates, governments can foster a more inclusive and democratic governance process. Digital transparency tools such as online feedback mechanisms, public consultations, and participatory budgeting processes allow citizens to have a voice in decisions that affect them, enhancing democratic accountability (Lekkas & Souitaris, 2023).

3. Public Trust and E-Government

The third theme explores the intricate relationship between public trust and the implementation of digital government systems. Trust in government is a foundational element for the functioning of a healthy, democratic society (Parent et al., 2005). It ensures the legitimacy of government institutions and encourages active civic participation. In the context of digital transformation, trust is especially significant because governments are increasingly relying on digital tools to manage public services, communicate with citizens, and make decisions. Public trust in digital government systems is essential for their success, as citizens need to feel confident that these platforms are secure, reliable, and serve their best interests (Persson & Goldkuhl, 2010).

The widespread adoption of e-government platforms—digital platforms that facilitate the delivery of public services and the exchange of information between citizens and government agencies—has the potential to significantly enhance public trust. Research indicates that when these digital services are accessible, user-friendly, and lead to tangible improvements in service delivery, they can foster greater trust in government institutions. Meijer et al. (2018) highlight that effective digital tools that promote transparency, accountability, and active citizen engagement contribute to an increase in public trust. The ability of citizens to access government services more conveniently and participate in decision-making processes via digital platforms can empower them and make them feel more involved in their governance, strengthening the bond of trust between government and the public.

However, while digital transformation has the potential to strengthen public trust, it also presents significant challenges. The digital divide—the gap between those who have access to digital technologies and those who do not—is one of the most critical issues facing governments in their pursuit of digital inclusion (Paselle et al., 2025). As governments increasingly rely on digital tools, marginalized groups, including low-income citizens, the elderly, and rural populations, are at risk of being excluded from the benefits of digital government. Fountain (2007) point out that without equitable access to technology and digital services, certain segments of the population may become disenfranchised, leading to greater inequalities in service delivery and undermining public trust. The digital divide can create a sense of alienation and disillusionment among those who are unable to access or use e-government platforms effectively, leading to lower levels of trust in government institutions (S. Grimmelikhuijsen, 2012).

To address the digital divide, governments must prioritize digital inclusion initiatives. This includes ensuring that digital platforms are designed to be accessible and inclusive for all citizens, regardless of their economic status, geographic location, or technical abilities (Cordella, 2007). Governments can invest in infrastructure, such as

affordable internet access, and provide digital literacy programs to ensure that citizens are equipped with the skills needed to engage with digital government services. Additionally, public awareness campaigns can help to increase understanding of the benefits of e-government and encourage citizens to take advantage of these platforms. Ensuring that digital services are accessible to everyone, including vulnerable and underserved populations, is crucial to building trust and maintaining a fair and equitable digital government system (S. G. Grimmelikhuijsen & Meijer, 2014).

Another significant concern that impacts public trust in digital government systems is data privacy and security (Kim & Lee, 2012). As governments collect and store vast amounts of personal and sensitive data, citizens are increasingly concerned about how their information is being used, stored, and protected. The protection of personal data has become one of the most pressing issues in the digital age, as data breaches, identity theft, and misuse of information can severely damage public trust in government institutions. Research by Mappisabbi (2024) emphasizes the importance of ensuring robust data privacy and security measures to maintain the public's confidence in digital government platforms. Citizens need assurance that their personal information is safe from unauthorized access and misuse, and that they can engage with digital platforms without fear of exploitation.

Governments must implement strict data protection policies, adopt best practices in cybersecurity, and ensure that digital platforms comply with relevant privacy regulations (Cordella, 2007). Moreover, governments must be transparent about how they collect, store, and use citizens' data, providing clear and understandable information about data privacy practices. Citizens are more likely to trust digital government platforms if they feel confident that their personal information is being handled securely and that their privacy rights are respected (S. G. Grimmelikhuijsen & Meijer, 2014).

In addition to data privacy concerns, governments must also be transparent about how digital platforms are used and the decisions made by automated systems. When citizens are able to understand the processes behind government decisions—whether through digital tools or AI-driven systems—they are more likely to feel that the government is acting in their best interest (Kim & Lee, 2012). Transparency in the use of artificial intelligence and machine learning algorithms is crucial to avoid potential biases or mistakes in automated decision-making processes. This transparency helps build trust in the fairness and accountability of government actions, ensuring that citizens believe they are being treated equitably and not subject to unfair or discriminatory practices (Parent et al., 2005).

Beyond these technical concerns, the cultural and organizational readiness of government institutions to embrace digital transformation is equally important in building public trust. Governments must ensure that public servants and officials are adequately trained to use digital tools and engage with citizens through these platforms (Persson & Goldkuhl, 2010). The human element of e-government cannot be overlooked, as the success of digital government systems relies on effective interaction between citizens and government representatives. Public servants must be approachable, responsive, and committed to using digital tools to improve service delivery. A positive user experience is essential to fostering trust, as citizens who have seamless and efficient interactions with digital government services are more likely to trust the system overall (Paselle et al., 2025).

CONCLUSION

The study concludes that digital tools such as e-government platforms, AI, and data analytics play a critical role in enhancing efficiency, transparency, and public trust in public administration. While these tools improve service delivery and accessibility, they also present challenges, such as digital exclusion and data privacy concerns. For governments to successfully foster trust and inclusivity, addressing these challenges is essential. Future research should focus on the long-term impacts of digital bureaucracy on marginalized communities and explore the ethical implications of AI in governance, particularly its effect on public trust. The study highlights the need for investments in digital literacy and infrastructure to ensure equal access to government services, urging policymakers to not only focus on the digitalization of government processes but also prioritize the ethical use of technology, particularly concerning data privacy, to maintain and build public trust in digital systems.

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