

Public Service Innovation in Public Administration: Case Analysis of E-Government Implementation in Surabaya City Government

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Abstract

The implementation of e-government has emerged as a critical catalyst for public service innovation, with the primary goals of enhancing efficiency, transparency, and citizen participation in public administration. This qualitative case study explores the e-government initiatives implemented by the Surabaya City Government, establishing Surabaya as a leader in digital governance within Indonesia. Despite the global and national focus on e-government systems, a substantial research gap persists in understanding the specific challenges and outcomes faced by local governments, particularly within Indonesia's socio-political framework. Employing qualitative methods, such as in-depth interviews with government officials and citizens, this study analyzes the implementation strategies, the impact on public service delivery, and the influence of government officials, technological infrastructure, and organizational culture on the success of e-government. The findings indicate that while e-government has enhanced administrative efficiency and service accessibility, significant challenges, including digital literacy, infrastructural limitations, and political resistance, remain. Additionally, although citizen engagement has improved, certain population segments continue to face barriers due to the digital divide. This research advances the existing literature by providing a detailed examination of local e-government implementation and offering practical recommendations for overcoming challenges in similar settings.

I. Introduction

E-government has emerged as a transformative tool in public administration, reshaping interactions between governments and citizens and enhancing the delivery of public services. The integration of information and communication technologies (ICT) within public sector operations has played a crucial role in this transformation, shifting traditional bureaucratic processes to streamlined, user-centric service models that improve efficiency, transparency, and citizen engagement. For instance, e-government initiatives in Ghana have demonstrated substantial gains in operational efficiency, reducing costs, and expanding service accessibility (Tiika, 2024), while similar developments in Indonesia reveal how social media can enhance citizen engagement and participatory governance (Yusmanizar, 2023). By fostering active citizen engagement, e-government is seen not only as a technical solution but as a foundation for more inclusive governance.

Moreover, the adoption of ICT in public administration has been instrumental in establishing coherent governance frameworks, effectively bridging political divides and enhancing overall governance (Liu & Yuan, 2015). As Sudrajat highlights, e-government's capacity to provide good public service significantly contributes to community welfare and satisfaction (Sudrajat, 2023). This transformative potential is particularly notable in its ability to foster transparency and accountability, thereby promoting trust between government institutions and citizens (Susanto, 2015). In developing regions, where administrative capacity may be a challenge, robust e-government systems have proven essential for enhancing operational efficiency and enabling governments to meet citizen needs more effectively (Stier, 2015; Tiika, 2024).

The impact of e-government also extends to fostering greater citizen participation. Studies underscore that e-government platforms facilitate civic engagement by providing citizens with tools to voice opinions, access government information, and participate in decision-making processes (Munyoka & Maharaj, 2019). This inclusiveness has been especially critical during challenges like the COVID-19 pandemic, when digital governance platforms were instrumental in maintaining service continuity and public access to essential services (Syahputri & Kusdarini, 2021). E-government initiatives globally have been pivotal in sustaining efficient and responsive governance structures, adapting to societal needs, and incorporating emerging technologies such as blockchain for enhanced transparency and security (S. Khan et al., 2022; Lykidis et al., 2021).

Indonesia serves as a compelling example of e-government's broad impact, particularly in the city of Surabaya. Here, local government initiatives have

earned recognition for pioneering digital governance and setting a model for other regions. Surabaya's commitment to e-government is evident through mobile applications and programs like the Broadband Learning Center, which aim to bridge the digital divide and promote digital literacy (Arista & Prabawati, 2021). This local initiative emphasizes citizen empowerment, as these applications not only increase service accessibility but also enhance communication between citizens and officials, fostering a culture of transparency and responsiveness (Alfayn, 2022; Nafi'ah, 2023).

Furthermore, Surabaya's success in e-government implementation is attributed to its collaborative governance model that actively engages government, private sector, and civil society stakeholders. This model fosters a sustainable, inclusive environment for public service delivery that prioritizes citizen needs (Maulana, 2020). Such examples illustrate that e-government, when implemented thoughtfully, can enhance administrative effectiveness, encourage citizen participation, and foster trust in government institutions by promoting accountability, transparency, and accessibility—core tenets of a responsive and resilient governance system.

The implementation of e-government in Indonesian municipalities represents a promising pathway for enhancing public service delivery, yet there is a marked lack of in-depth, case-specific studies that examine how these initiatives are developed, implemented, and evaluated within the unique socio-political contexts of Indonesian municipalities. This research gap limits an understanding of local e-government strategies, particularly regarding how they address specific challenges and leverage opportunities unique to Indonesia's local governance landscape. Existing studies on e-government, such as those by Ingrams et al., provide a global perspective on digital governance but lack the granularity needed to capture the contextual dynamics of individual Indonesian municipalities (Ingrams et al., 2018). Without localized research, critical factors influencing e-government implementation—such as resource constraints and administrative capacity—remain underexplored within the Indonesian context.

Further complicating this research gap is the absence of empirical frameworks tailored to Indonesian municipalities. While Mabizela underscores the significance of monitoring and evaluation in enhancing local government performance, there is limited discussion on how these practices can be adapted to Indonesia's unique challenges, such as capacity limitations and limited resources (Mabizela, 2023). Studies from other contexts, like Rooks et al.'s research on Dutch municipalities, discuss stages of e-government development but have not been fully applied to the Indonesian context (Rooks et al., 2017). This oversight limits the potential for Indonesian municipalities to benchmark and adapt successful e-government practices from global counterparts, leading instead to a phenomenon of "mimicking" practices without fully assessing their

suitability for local challenges and capacities (Rooks et al., 2017).

Moreover, there is a notable lack of research into the tangible impacts of e-government on local governance outcomes, such as service delivery quality, citizen engagement, and administrative efficiency. Studies by Dias discuss the determinants of e-government implementation at a general level but fall short in exploring the practical outcomes of these implementations, particularly how they translate into improved accessibility and quality of services in Indonesian municipalities (Dias, 2020). Furthermore, while theoretical frameworks suggest that e-government should enhance citizen engagement, empirical studies specifically documenting its impact on citizen participation in Indonesian municipalities remain scarce. For example, while Nurdin et al. highlight the importance of social systems in supporting sustainable local e-government, they do not provide concrete evidence on how these systems function within Indonesian municipalities to foster citizen involvement (Nurdin et al., 2022). This absence of empirical insights into citizen engagement constrains the development of participatory governance models in Indonesia.

Internal administrative structures within local governments, which are significantly impacted by e-government, are another under-researched area. Research by Nani and Ali points to the importance of efficient e-procurement systems within local governance but does not explore the broader implications of e-government on administrative effectiveness and process efficiency (Nani & Ali, 2020). Understanding these internal dynamics is essential, as digital governance initiatives often necessitate shifts in organizational workflows, inter-departmental coordination, and overall administrative efficiency—factors that directly influence the success of e-government initiatives.

Surabaya emerges as a significant case study in addressing these research gaps, offering insights into the practical impacts of e-government on local public service innovation (Dewi & Yafiz, 2024; Justisia et al., 2024; Tristiana et al., 2024). As one of Indonesia's largest cities, Surabaya has pioneered e-government strategies that have led to advancements in service delivery, citizen engagement, and internal administrative processes, positioning it as a model for other municipalities. Surabaya's adoption of mobile governance applications, for instance, operationalizes citizen engagement in practice, filling a gap in the literature that often emphasizes theoretical benefits without concrete examples (A. Khan & Krishnan, 2021). Furthermore, Surabaya's commitment to transparency and accountability through open data platforms and citizen feedback mechanisms provides empirical evidence on how local governments can build trust with citizens, thus strengthening the theoretical foundation of trustworthiness in digital governance (Indama, 2022).

Additionally, Surabaya's case illustrates how digital governance can streamline internal administrative processes, improve communication across departments, and create a more efficient governance model. Studies like those by Keco et al., which evaluate e-government quality in varied contexts, typically overlook the internal administrative impact on local governance (KECO et al., 2023). Surabaya's experiences offer a practical example of how e-government can be implemented to enhance administrative efficacy, creating a more responsive and integrated governance structure.

Moreover, Surabaya's approach to navigating common e-government barriers—such as resource constraints and public awareness—offers valuable insights for other municipalities facing similar challenges. By examining Surabaya's strategies for overcoming these obstacles, such as fostering public digital literacy through initiatives like the Broadband Learning Center, this research can offer lessons in sustainable e-government practices that are adaptable to varying socio-political and economic contexts across Indonesia (Arista & Prabawati, 2021). In sum, Surabaya's experience exemplifies how local-level e-government can effectively bridge the gap between theoretical benefits and practical implementation, contributing to a more nuanced understanding of e-government's transformative potential within Indonesia's diverse municipal landscape.

The implementation of e-government in Surabaya stands as a critical case study for examining strategies, impacts, and challenges in digital governance at the local level. Surabaya, as one of Indonesia's most progressive cities in terms of digital transformation, has adopted a range of e-government initiatives to enhance public service delivery, bolster citizen engagement, and streamline internal administrative processes.

Strategies for E-Government Implementation

Surabaya's e-government strategy centers on leveraging technology to improve the efficiency and accessibility of public services. A prominent example is the Surabaya Command Center, which consolidates various public services into a single, accessible platform for citizens (Mudjahidin et al., 2022). By integrating services, this centralized approach facilitates communication between government agencies and the public, thereby improving service delivery quality. Additionally, Surabaya utilizes advanced technologies, including Geographic Information Systems (GIS) for urban planning, enhancing public transportation routes, and optimizing service areas (Azhali & Widyastuti, 2023). The city also applies big data analytics in public service management, allowing for data-driven decisions and efficient resource allocation (Budiarti, 2023). These strategies reflect a larger trend in e-government, where technology is used to create more responsive and effective governance structures.

Impacts of E-Government

The impacts of Surabaya's e-government initiatives are multifaceted. Firstly, digital transformation has improved service delivery efficiency, as citizens can now access various services online, reducing the need for physical visits to government offices—a shift particularly beneficial during the COVID-19 pandemic (Megawati et al., 2023). This digital transition has not only enhanced convenience for citizens but has also contributed to operational cost reductions for the local government.

Secondly, e-government initiatives have strengthened citizen engagement in governance processes. Platforms for feedback, complaints, and public forums enable citizens to actively participate in governance, fostering transparency and trust (Hertati, 2023). Through these channels, citizens can voice concerns and provide input on policy decisions, helping build a participatory governance model that aligns with citizens' needs. Furthermore, digital platforms improve transparency in local governance by making government activities more visible, reducing opportunities for corruption, and increasing accountability (Adiputra et al., 2018). This transparency is essential for public trust and ensures that government actions reflect citizen expectations.

Challenges of E-Government Implementation

Despite its successes, Surabaya faces several challenges in implementing e-government effectively. A major barrier is the digital divide, where differences in access to technology and digital literacy prevent segments of the population, particularly in rural and marginalized areas, from fully engaging with e-government services (Abdul & Zohurul, 2015). This divide can lead to unequal access to services, exacerbating existing inequalities in public service delivery. Another challenge is the technical complexity of integrating various e-government systems. Rahayu notes that managing multiple digital platforms and ensuring they work cohesively can lead to inefficiencies if not effectively coordinated (Prabawa et al., 2022; Rahayu, 2023). Ensuring interoperability among systems and safeguarding data security are crucial for sustaining the benefits of digital governance. Additionally, resistance to change within government institutions is a significant challenge, as employees may hesitate to adopt new technologies or shift from established workflows, slowing the overall effectiveness of e-government initiatives (Elgohary & Abdelazyz, 2020).

Addressing the Challenges: Mitigation Strategies

To address these barriers, the Surabaya government has implemented several mitigation strategies aimed at enhancing the effectiveness and inclusivity of e-government initiatives:

1. **Digital Literacy Programs:** Surabaya has initiated digital literacy programs

targeting marginalized communities to bridge the digital divide. By offering training sessions and workshops, these programs empower citizens with the skills needed to access and use e-government services effectively (Ambarwati et al., 2021).

2. **Change Management Initiatives:** To overcome internal resistance, the government has introduced change management strategies, engaging employees in the digital transformation process. Training and support are provided to help staff adapt to new technologies, fostering a collaborative culture for e-government adoption (Choi et al., 2018).
3. **Enhancing Trust through Transparency:** Surabaya has focused on transparency to build trust in its digital governance initiatives. Open data platforms and clear communication about data privacy have been prioritized to alleviate public concerns regarding data security (Choudrie et al., 2017). This approach is crucial for encouraging citizen engagement with e-government services.
4. **Infrastructure Investments:** Recognizing the importance of robust infrastructure, Surabaya has invested in upgrading its IT systems and expanding internet access, including collaborations with telecommunications providers to improve connectivity (Hassan et al., 2011). This infrastructure is fundamental for reliable access to e-government services across the city.
5. **Capacity Building for Employees:** To ensure that staff members are proficient in digital tools, Surabaya has implemented capacity-building programs for government employees. These programs equip the workforce with the skills needed to manage and improve e-government systems, supporting long-term success in digital governance (Adiputra et al., 2018).

Broader Implications of E-Government in Public Administration

The e-government experience in Surabaya underscores a broader understanding of e-government's transformative role in public administration. E-government has been shown to improve service delivery by automating processes and enhancing resource allocation, as noted by Pham, who highlights the efficiency gains of self-service digital platforms (Pham, 2023). Additionally, as Gable observes, e-government initiatives can lead to cost savings by minimizing physical infrastructure needs and reducing bureaucratic delays (Gable, 2014).

In enhancing citizen participation, digital platforms facilitate direct engagement with government, enabling citizens to express opinions and participate in governance processes, which strengthens transparency and accountability (Kim & Lee, 2012). This engagement is essential for a democratic and responsive governance framework, as illustrated by studies showing that citizens who engage with government through digital platforms during crises, such as COVID-19, are more likely to participate in governance processes (Amosun et al., 2021).

Finally, the quality of governance is significantly enhanced through e-government, as digital initiatives promote transparency, accountability, and reduced opportunities for corruption (Giedraitytė et al., 2022). The transition to digital governance, however, must be managed carefully to balance efficiency with citizen engagement, as Gable notes the potential for prioritizing efficiency over participation (Gable, 2014). By addressing the barriers and leveraging strategies for successful implementation, Surabaya demonstrates the potential for e-government to create a more equitable, responsive, and trusted governance model within Indonesia's municipal landscape.

2. Research Method

This study employs a qualitative research design with a case study approach, focusing specifically on the implementation of e-government in the municipality of Surabaya, Indonesia. This approach is chosen to capture the unique socio-political and administrative context of Surabaya, exploring the depth of local practices, challenges, and impacts associated with e-government. The case study method allows for an in-depth analysis of complex variables within the real-world setting of Surabaya's e-government framework, aiming to provide a comprehensive understanding of digital governance at the local level. The research investigates how e-government initiatives affect public service delivery, citizen engagement, and administrative processes by collecting and interpreting data that reveal the lived experiences and perspectives of both government officials and citizens.

The study involves purposive sampling of participants from key stakeholder groups involved in or affected by e-government initiatives in Surabaya. These participants include municipal government officials who manage and implement e-government services, as well as citizens who use these digital platforms. Government officials selected for the study include representatives from departments focused on digital services, public relations, and urban planning. Citizen participants are drawn from diverse demographic groups across Surabaya to ensure a comprehensive representation of different perspectives, including variations in age, socioeconomic status, and digital literacy levels. This diversity aims to provide insights into the accessibility and effectiveness of e-government services for various community segments within the city.

The primary research instruments used in this study are semi-structured interviews and focus group discussions. Semi-structured interviews are conducted with government officials to explore their insights into the objectives, challenges, and outcomes associated with e-government initiatives. This method allows for flexibility in questioning, encouraging participants to elaborate on specific topics relevant to their roles. Focus group discussions are conducted with citizen participants, allowing them to share experiences, expectations, and feedback about the e-government platforms they engage with. Additionally, observational notes are taken during interactions on e-government portals and mobile applications to gather contextual data on user interfaces and the overall digital experience.

Data collection for this study includes in-depth interviews, focus group discussions, and document analysis. Interviews with government officials are conducted in person or virtually, lasting approximately 45-60 minutes each. Focus group discussions with citizens are organized to encourage dialogue on shared experiences, lasting 60-90 minutes per session. To complement primary data, document analysis is also undertaken, examining government reports, policy documents, and user feedback on e-government services to provide additional insights into the strategic objectives and operational challenges of digital governance in Surabaya. All interviews and discussions are recorded with participant consent and transcribed for analysis.

The data analysis in this study employs thematic analysis to identify key patterns, themes, and insights from the qualitative data collected, using NVivo software to support a structured and systematic approach. NVivo, a powerful qualitative data analysis tool, facilitates organization, coding, and analysis through nodes, which serve as containers for codes that represent specific themes or concepts derived from the data (Shakeela & Weaver, 2014; Zamawe, 2015). Using NVivo, interview and focus group transcripts are coded to capture recurring themes around service delivery, citizen engagement, transparency, and administrative efficiency, essential themes for understanding the impact and barriers of e-government initiatives (Dalkin et al., 2021).

The coding process begins with open coding, where the data are broken down into discrete segments and initial codes are assigned, allowing researchers to identify key themes or significant phrases expressed by participants (Cervantes et al., 2017; Grossman et al., 2021; Julier & Benfield, 2022). Following this, axial coding is applied to connect and relate codes, refining the analysis by identifying relationships between different codes and developing a cohesive framework of findings (Patwardhan et al., 2021; Reichert et al., 2023). NVivo's hierarchical node structure is instrumental in this process, allowing researchers to categorize overarching themes into "parent" nodes and further refine these into "child" nodes representing more specific sub-themes. This hierarchical organization aids in visualizing relationships between themes, offering a nuanced understanding of the socio-political implications and operational aspects of Surabaya's digital governance (Clifford et al., 2020; Elfarargy et al., 2022).

Additionally, NVivo supports the iterative nature of qualitative research, enabling researchers to revisit and refine codes as new insights arise throughout the analysis (Lawhaishy & Othman, 2022; Sholehah, 2024). Document analysis data are also coded within NVivo to highlight policy trends and operational directives within Surabaya's e-government framework, enriching the thematic analysis by adding context-specific directives and strategies. The software's tools for data retrieval and visualization further enhance analytical rigor, as NVivo allows users to run queries, explore relationships between nodes, and generate reports that summarize coding patterns (Lawhaishy & Othman, 2022; Widayat et al., 2023). These features not only streamline the coding process but also improve the reliability and transparency of the analysis, providing a robust framework for data organization and validating the study's findings (Kashan et al.,

2021; Musa et al., 2017).

This combination of thematic analysis and NVivo's advanced functionalities ensures a comprehensive and reliable examination of the barriers, strategies, and impacts of e-government in Surabaya, revealing the socio-political and administrative complexities in a structured and accessible format.

3. Results and Discussion

This study involved conducting interviews with two key groups: government employees responsible for managing E-Government systems and citizens who have benefited from the public services provided through these systems. By including both administrators and end-users, the research aimed to gain a comprehensive understanding of the E-Government experience from multiple perspectives.

The data collected during these interviews were processed using the NVIVO method, a qualitative data analysis tool that helps organize and interpret complex information. Through NVIVO, the interview responses were systematically converted into codes, allowing for clearer identification of recurring themes, patterns, and insights within the dataset.

The results of this coding process form the basis of the analysis, providing structured insights into the effectiveness, challenges, and user satisfaction associated with E-Government services. These findings are detailed in the following sections to highlight key observations and implications.

Table of Coding

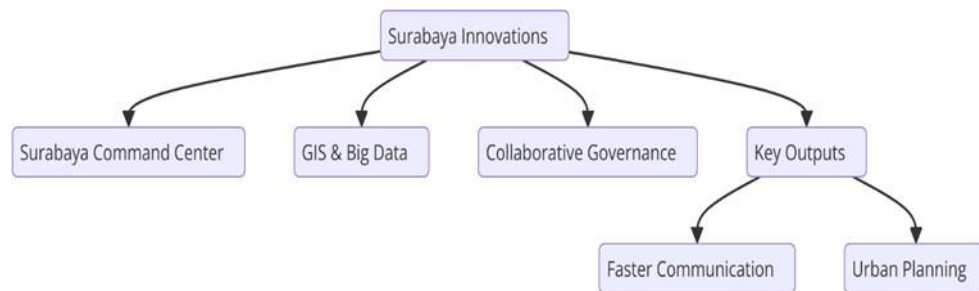
Type of Coding	Definition	Examples Based on Provided Data
Open Coding	The process of identifying, labeling, and categorizing concepts in the raw data. It involves breaking the text into discrete parts to understand the meaning of each segment.	- Code: Partnerships with local startups ("Local technology companies were involved in developing public service applications.") - Code: Public Wi-Fi installations ("Wi-Fi hotspots were set up across neighborhoods, especially underserved areas.")
Axial Coding	The process of relating codes (categories and subcategories) to each other. It focuses on identifying relationships among open codes and	- Category: Collaborative Efforts - Codes Included: Partnerships with startups, academic collaboration, NGO-led training programs. - Category: Digital Inclusivity - Codes Included: Public Wi-Fi installations, digital literacy workshops, multilingual platforms.

	clustering them into categories.	
Selective Coding	The process of integrating and refining categories to form overarching themes that provide insights into the central research question.	- Theme: Collaborative Governance for Digital Inclusion (Surabaya's partnerships with stakeholders enhance e-government accessibility and inclusivity.) - Theme: Addressing the Digital Divide (Focused initiatives aim to reduce barriers for marginalized communities.)

The findings from the coded interviews are illustrated in the diagrams below.

A. E-Government Strategies and Implementation

The diagram provides a detailed representation of the e-government strategy, highlighting its core components and how they are implemented in practice. It visually outlines the key objectives, processes, and mechanisms that drive the development and execution of e-government initiatives. By breaking down the strategy into its individual elements, the diagram offers a clear understanding of how these components work together to deliver public services efficiently and effectively.



Surabaya has implemented a series of innovative strategies to enhance public services and improve administrative efficiency. Central to these efforts is the **Surabaya Command Center**, which centralizes multiple services, providing a unified platform for citizens and government departments to interact. This system enables real-time communication, reducing bureaucratic delays and allowing faster responses to public concerns. By acting as a hub for monitoring, decision-making, and issue resolution, the Command Center has significantly streamlined workflows and increased transparency.

Another key innovation is the integration of Geographic Information Systems (GIS) and Big Data. These advanced technologies are leveraged for urban planning and resource management. GIS facilitates precise zoning, land use planning, and infrastructure development, while big data analytics optimizes resource allocation and service delivery. Together, these tools enable evidence-based decision-making, ensuring that

urban development aligns with the city's long-term sustainability goals.

Surabaya's success in digital governance is also underpinned by collaborative governance, which fosters partnerships between government entities, private companies, NGOs, and academic institutions. These partnerships bring diverse expertise and resources to the table, making e-government initiatives more inclusive and sustainable. Collaborative governance ensures that policies are not only innovative but also address the specific needs of the community, bridging gaps in resources and knowledge.

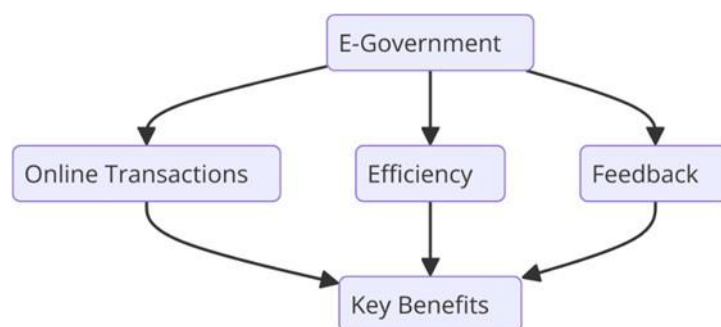
The outputs of these innovations are evident in two major areas: faster communication and improved urban planning. Faster communication has been achieved through centralized platforms that streamline interactions between citizens and government departments, fostering trust and transparency. Simultaneously, GIS-powered urban planning has resulted in more organized infrastructure and proactive governance, supporting sustainable development objectives.

The implications of these innovations highlight Surabaya's leadership in e-government. The centralized systems ensure seamless service delivery, while data-driven planning strengthens the city's ability to address infrastructure needs effectively. Furthermore, the emphasis on collaboration promotes inclusivity, ensuring that the benefits of digital governance reach all segments of society.

To maximize the potential of these innovations, the city must focus on bridging the digital divide by expanding literacy programs and improving internet access in underserved areas. Strengthening data security frameworks and raising public awareness of data privacy will further enhance trust in digital systems. Additionally, scaling collaborative efforts with international organizations and leveraging emerging technologies such as AI and blockchain will allow Surabaya to maintain its status as a pioneer in digital governance.

B. Impact on Public Service Delivery

This diagram provides a clear depiction of the impact of public service delivery, showcasing how various elements of the e-government system contribute to improving the efficiency and effectiveness of services offered to citizens.



E-government in Surabaya has significantly transformed public service delivery by integrating online transactions, improving operational efficiency, and incorporating citizen feedback mechanisms. Online transactions enable citizens to access essential services such as tax payments, permit applications, and healthcare services digitally. This shift has reduced the need for in-person visits to government offices, saving time and effort for citizens while ensuring uninterrupted service delivery during the COVID-19 pandemic. The accessibility and convenience offered by these platforms have made government services more user-friendly and efficient.

Operational efficiency has been another critical outcome of Surabaya's e-government initiatives. By automating administrative processes and streamlining workflows, the city has reduced bureaucratic bottlenecks, cut down on paperwork, and lowered administrative costs. Faster processing times for applications and approvals have further improved citizen satisfaction. Additionally, data-driven decision-making has optimized resource allocation, enabling the government to respond more effectively to the needs of its citizens.

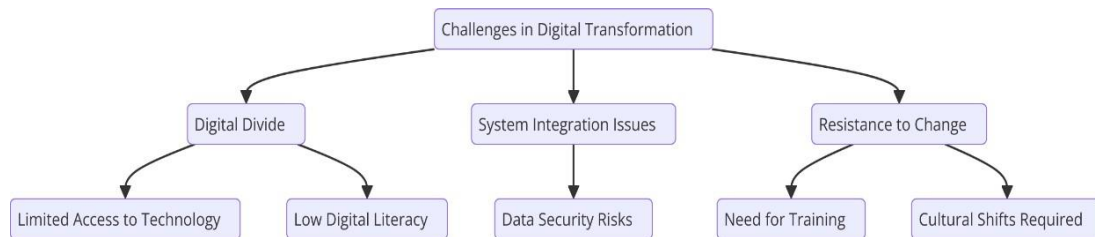
Citizen feedback mechanisms have also played a pivotal role in the success of Surabaya's e-government system. These platforms provide citizens with channels to voice their concerns, offer suggestions, and provide input on public services. The government uses this feedback to align its services with community expectations, fostering greater trust and transparency. As a result, citizens feel more engaged and empowered to participate in governance, creating a more inclusive and participatory public administration framework.

The synergy between these components—online transactions, efficiency, and feedback mechanisms—has resulted in several key benefits. Enhanced service accessibility has made it easier for citizens to interact with the government, especially in urban areas with reliable internet access. Operational efficiency has not only improved service quality but also allowed the government to reallocate resources to critical areas. Furthermore, citizen-centric governance, driven by feedback mechanisms, has strengthened transparency and accountability, building trust in government institutions.

While the benefits of e-government in Surabaya are evident, there are opportunities for further improvement. Expanding internet access and digital literacy programs to rural and underserved areas can bridge the digital divide and ensure equitable access to e-government services. Strengthening feedback mechanisms through advanced analytics and targeted campaigns can enhance citizen participation. Additionally, implementing robust cybersecurity measures will protect sensitive data and boost public confidence in digital platforms. Finally, integrating emerging technologies such as Artificial Intelligence (AI) for decision-making and blockchain for secure transactions can further enhance the effectiveness of Surabaya's e-government initiatives.

A. Challenges in E-Government Implementation

This diagram provides a comprehensive overview of the challenges faced during the implementation of e-government initiatives. It identifies key obstacles that hinder progress, such as technological limitations, resource constraints, and issues related to user adoption and engagement.



The diagram highlights the significant challenges in digital transformation, particularly in the context of e-government. One critical challenge is the digital divide, which encompasses limited access to technology and low digital literacy among citizens. Rural and economically disadvantaged communities often lack reliable internet, smartphones, and computers, creating unequal opportunities to engage with digital services. Even when access to technology is available, many citizens lack the necessary skills to navigate e-government platforms effectively. This disparity restricts their ability to participate in digital governance and contributes to widening social and economic inequalities. Addressing the digital divide is crucial to ensuring that digital transformation benefits all segments of the population equally.

Another prominent challenge is system integration issues, which arise from the need to seamlessly connect various platforms and systems. A key concern is data security risks, as interconnected systems are more susceptible to cyberattacks and data breaches. Without robust cybersecurity measures, sensitive citizen information could be compromised, eroding public trust in digital services. Additionally, interoperability challenges between systems often lead to inefficiencies, delayed service delivery, and increased operational costs. Effective system integration is essential to building reliable and efficient digital platforms that meet the needs of citizens and government institutions alike.

The third challenge is resistance to change, particularly within government institutions. Many employees require targeted training to adapt to new technologies and workflows. Without adequate support, they may lack the confidence or skills to use digital tools effectively, slowing the adoption of innovative solutions. Furthermore, cultural shifts within organizations are needed to embrace digital transformation fully. Long-standing practices and traditional mindsets often hinder progress, as institutions prioritize established methods over adopting modern,

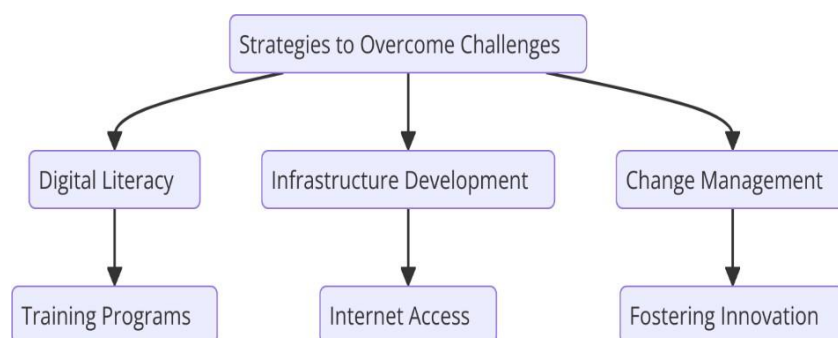
technology-driven approaches. This resistance can lead to delays, increased costs, and underutilization of digital systems.

These challenges are interconnected and amplify one another. For instance, the digital divide among citizens mirrors resistance to change within institutions, as both groups require education and training to adapt to digital systems. Similarly, poor system integration exacerbates security vulnerabilities, making it essential to address integration and data protection simultaneously. Resistance to change also affects integration efforts, as employees hesitant to transition from traditional workflows can delay progress.

To address these challenges, several strategies can be implemented. Bridging the digital divide requires targeted digital literacy programs for underserved communities and investments in expanding technological infrastructure, such as rural broadband and public Wi-Fi initiatives. Improving system integration involves standardizing platforms, adopting interoperability frameworks, and implementing robust cybersecurity protocols. Managing resistance to change can be achieved through comprehensive training programs for employees and fostering a culture of innovation within institutions. Encouraging collaboration, flexibility, and adaptability is essential to overcoming resistance and ensuring the success of digital transformation.

B. Addressing Challenges

This diagram provides an in-depth representation of strategies designed to address challenges in e-government implementation. It highlights practical approaches that can be employed to mitigate potential issues and ensure effective problem resolution.



To overcome the challenges of implementing e-government, Surabaya has introduced a set of targeted strategies focusing on digital literacy, infrastructure development, and change management. These initiatives aim to address barriers such as the digital divide, limited technological access, and resistance to change

within institutions, fostering a more inclusive and effective digital governance system.

Improving digital literacy has been a cornerstone of Surabaya's approach. Targeted training programs have been designed to equip marginalized communities, including older adults, rural populations, and economically disadvantaged groups, with the skills necessary to engage with digital platforms. These programs aim to bridge the digital divide by empowering citizens to use e-government services effectively, fostering greater participation and engagement. By reducing disparities in access to public services, these initiatives ensure inclusivity in digital governance while building confidence in navigating digital tools.

Another critical area of focus is infrastructure development, which involves investments in expanding internet access and improving server reliability to meet the growing demand for digital services. This enhanced infrastructure ensures that citizens, regardless of location, can rely on consistent, fast, and secure connectivity. By reducing technological barriers, these efforts extend the reach of e-government services to underserved rural and remote areas, making digital platforms more accessible and reliable for all users.

Addressing institutional resistance to digital transformation has been tackled through comprehensive change management initiatives. These include employee training programs that help government staff adapt to digital tools and workflows. Additionally, fostering a culture of innovation within institutions encourages employees to embrace new technologies and adopt innovative practices. This strategy reduces resistance to change by addressing skill gaps and hesitancy, while promoting collaboration and adaptability among staff. As a result, government institutions are better equipped to manage and utilize digital tools effectively, ensuring alignment with organizational goals.

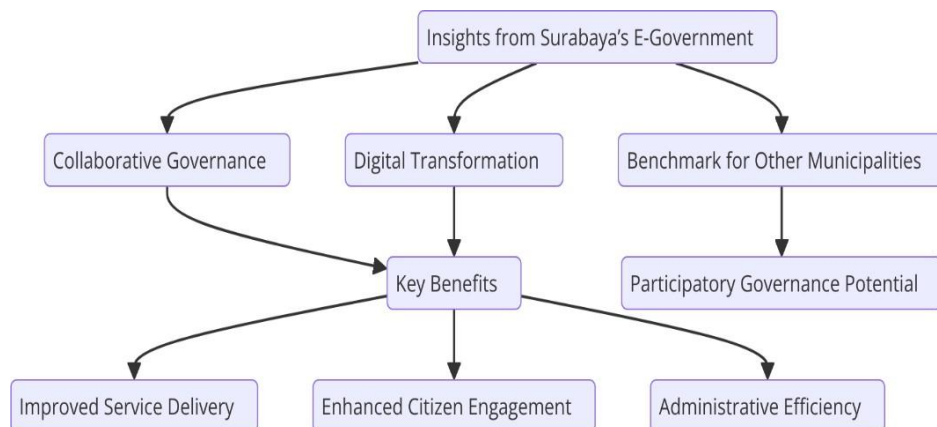
These strategies are interconnected, with each area reinforcing the others to create a holistic approach to overcoming challenges. For instance, expanding internet access complements digital literacy programs by providing the necessary tools for citizens to apply their skills. Similarly, training programs for employees and citizens ensure that both groups are equipped to adapt to digital transformation, fostering innovation and alignment between institutional and public capabilities. Reliable technological infrastructure further supports the integration of new tools and workflows, facilitating smoother transitions to digital operations.

To optimize these strategies, Surabaya can expand the scalability of digital literacy programs to include specialized modules for seniors, women, and differently-abled individuals, collaborating with NGOs and educational institutions to enhance program reach. Sustainable infrastructure investments, such as renewable energy-powered IT systems and community-based internet hubs, can support broader access while addressing environmental concerns. Additionally, fostering innovation through dedicated labs within government institutions and establishing reward

systems to incentivize digital adoption among employees can further enhance the effectiveness of change management efforts.

C. Broader Implications for Public Administration

This diagram outlines the broader implications of e-government for public administration, highlighting how the integration of digital technologies influences the way government functions and interacts with citizens.



Surabaya's e-government strategies have set a benchmark in public administration by combining collaborative governance and digital transformation. These initiatives have significantly improved service delivery, citizen engagement, and administrative efficiency, showcasing the transformative potential of e-government. By fostering partnerships and leveraging technology, Surabaya has created a system that is both innovative and responsive to community needs.

A key pillar of Surabaya's success is collaborative governance, which actively engages stakeholders such as government agencies, private companies, NGOs, and citizens. By fostering partnerships, the city has harnessed diverse expertise and resources to develop effective public services. This inclusive approach has streamlined workflows, reduced redundancies, and made services more accessible. Collaborative efforts have also led to the creation of platforms that empower citizens to provide feedback and participate in decision-making processes, enhancing citizen engagement and trust in governance.

The city's commitment to digital transformation has modernized public administration through the adoption of advanced technologies such as integrated platforms, big data analytics, and automated workflows. These tools have optimized resource allocation, reduced bureaucratic bottlenecks, and enhanced service delivery. For instance, digital platforms have made it possible for citizens to access services online, eliminating the need for physical visits and improving convenience.

These efforts have not only improved administrative efficiency but also strengthened the relationship between citizens and government institutions.

Surabaya's achievements in e-government provide a benchmark for other municipalities in Indonesia and beyond. The city has demonstrated how combining technology with collaborative governance can yield impactful outcomes in public administration. Its use of digital platforms to engage citizens highlights the potential of e-government to foster participatory governance. By providing tools for feedback and involvement, Surabaya has strengthened the connection between citizens and their government, creating a scalable model that other municipalities can adapt to their unique challenges and opportunities.

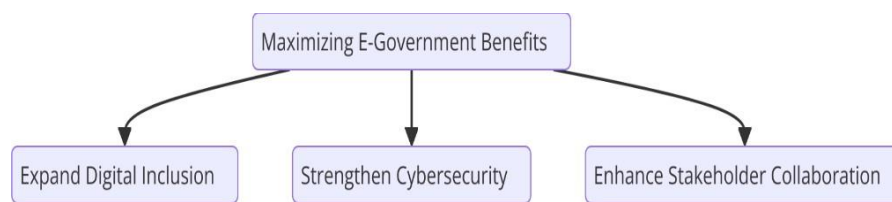
The combined efforts of collaborative governance and digital transformation in Surabaya have resulted in several key benefits. These include improved service delivery, where citizens experience faster and more reliable services, enhanced citizen engagement, which empowers the public to actively participate in governance, and administrative efficiency, as automation and integration have streamlined internal processes. Together, these benefits underscore the transformative potential of e-government in creating a more inclusive, efficient, and responsive public administration system.

The elements of Surabaya's e-government model are highly interconnected. Collaborative governance has driven the adoption of technologies that enhance service delivery and engagement, while digital platforms have facilitated more effective collaboration among stakeholders. The tangible outcomes of these initiatives, such as improved efficiency and citizen engagement, serve as a model for other municipalities aiming to implement e-government strategies.

To ensure the broader adoption of these practices, other municipalities can take several steps. Fostering collaboration between governments, private sectors, and civil society can replicate Surabaya's collaborative governance model. Investing in technology to develop integrated platforms and user-friendly digital tools is essential for enhancing efficiency and accessibility. Municipalities should also focus on sharing best practices by documenting and disseminating the successes and lessons from Surabaya's initiatives. Finally, scaling citizen participation through expanded use of digital platforms and targeted inclusivity measures can ensure that e-government benefits all segments of the population.

D. Future Directions and Recommendations

This diagram outlines various suggestions that can be considered for future governments, focusing on strategies and approaches to enhance governance in the digital era.



To maximize the benefits of e-government, focusing on three key areas—expanding digital inclusion, strengthening cybersecurity, and enhancing stakeholder collaboration—is critical. These strategies ensure that e-government systems are inclusive, secure, and innovative, ultimately driving equity and trust in public administration.

Expanding digital inclusion is fundamental to ensuring that all citizens, including marginalized and underserved communities, can access and utilize e-government services. This requires prioritizing investments in connectivity and infrastructure, particularly in rural and remote areas, to bridge the digital divide. User-friendly platforms that cater to diverse demographics, such as seniors and individuals with disabilities, are equally important. Additionally, digital literacy programs play a vital role in equipping populations with the skills needed to engage effectively with e-government platforms. Together, these efforts broaden access to public services, foster greater participation in governance, and reduce inequalities in service delivery.

Strengthening cybersecurity is essential for maintaining secure and reliable e-government systems. As these platforms handle sensitive citizen data, robust data protection frameworks, such as encryption, multi-factor authentication, and regular security audits, are necessary to safeguard information. Proactive threat monitoring through AI-driven tools can detect and mitigate cyber risks in real time. Furthermore, clear and transparent privacy policies are crucial for building public trust, ensuring citizens feel confident that their data is protected. By enhancing cybersecurity, governments can reduce the risk of cyberattacks, maintain uninterrupted service delivery, and foster trust in digital platforms.

Enhancing stakeholder collaboration is another crucial pillar for maximizing e-government benefits. Partnerships with private technology firms, NGOs, and community organizations bring diverse expertise, resources, and funding to e-government initiatives. Public-private collaborations can accelerate the development of advanced digital tools, while community involvement ensures that services are tailored to local needs. Resource-sharing among stakeholders further enhances efficiency and scalability. By fostering collaboration, governments can drive innovation, address unique community challenges, and create sustainable solutions that align with citizens' needs.

These three focus areas are interconnected and reinforce one another. For instance,

expanding digital inclusion through partnerships with stakeholders can accelerate infrastructure expansion and promote digital literacy. Similarly, robust cybersecurity measures instill confidence in new users, encouraging broader adoption of e-government platforms. Collaborative efforts with cybersecurity experts also ensure the development of resilient systems that protect user data and maintain operational integrity.

To optimize these strategies, governments should consider several key recommendations. Expanding digital literacy campaigns, in partnership with educational institutions and NGOs, can ensure widespread adoption of e-government services. Tailored training programs for marginalized groups, such as women, seniors, and persons with disabilities, are particularly important. Implementing advanced cybersecurity measures, such as AI-driven threat detection systems, can help mitigate emerging risks. Governments should also establish innovation hubs where public and private stakeholders can co-develop e-government solutions. Continuous evaluation of digital inclusion initiatives, cybersecurity measures, and stakeholder collaborations is essential to address emerging challenges and refine services based on citizen feedback.

4. Conclusion

The implementation of e-government in Surabaya stands as a transformative model for public service innovation in Indonesia, showcasing how strategic use of technology can enhance administrative efficiency, transparency, and citizen engagement. Surabaya's initiatives, including the establishment of the Surabaya Command Center and the integration of Geographic Information Systems (GIS) and big data analytics, have streamlined workflows, improved urban planning, and promoted data-driven decision-making. Collaborative governance, a cornerstone of Surabaya's success, has fostered partnerships between government entities, private companies, and civil society, ensuring that e-government initiatives are inclusive and sustainable.

Despite these advancements, the challenges of e-government implementation remain evident. Issues such as the digital divide, system integration complexities, and resistance to change among government institutions pose significant barriers. To address these challenges, Surabaya has undertaken targeted strategies including digital literacy programs, infrastructure investments, and change management initiatives. These efforts have enhanced accessibility to digital services, strengthened the city's technological foundation, and cultivated a culture of innovation within government institutions.

The broader implications of Surabaya's e-government model extend beyond local governance. Its achievements in fostering participatory governance and administrative efficiency serve as a benchmark for other municipalities in

Indonesia and globally. By leveraging technology to create transparent and accountable governance structures, Surabaya demonstrates the potential for e-government to build trust between citizens and government institutions. However, for sustained progress, future strategies must prioritize expanding digital inclusion, strengthening cybersecurity, and deepening stakeholder collaboration. These efforts will not only address existing challenges but also position Surabaya as a leader in resilient and responsive digital governance, setting an example for cities navigating the complexities of e-government in the digital era.

References

- Abdul, M., & Zohurul, Md. (2015). E-Service Delivery in Bangladesh: Major Challenges and Plausible Propositions. *International Journal of Applied Information Systems*, 9(5), 1–4. <https://doi.org/10.5120/ijais2015451034>
- Adiputra, I. M. P., Utama, S., & Rossieta, H. (2018). Transparency of Local Government in Indonesia. *Asian Journal of Accounting Research*, 3(1), 123–138. <https://doi.org/10.1108/ajar-07-2018-0019>
- Alfayn, M. A. N. (2022). From E-Government to Good Governance: Examining the Impact of Digitalization on Public Service Delivery in Indonesia. *JPW (Jurnal Politik Walisongo)*, 4(2), 19–40. <https://doi.org/10.21580/jpw.v4i2.14873>
- Ambarwati, R., Astuti, M., Dijaya, R., & Idamayanti, R. F. (2021). The Determinant Factors in Using E-Samsat Services on Motorized Vehicle Tax Payment in East Java, Indonesia. *Binus Business Review*, 12(1), 53–61. <https://doi.org/10.21512/bbr.v12i1.6496>
- Amosun, T. S., Chu, J., Rufai, O. H., Muhideen, S., Shahani, R., & Gonlepa, M. K. (2021). Does E-Government Help Shape Citizens' Engagement During the COVID-19 Crisis? A Study of Mediatonal Effects of How Citizens Perceive the Government. *Online Information Review*, 46(5), 846–866. <https://doi.org/10.1108/oir-10-2020-0478>
- Arista, V. M., & Prabawati, I. (2021). Evaluasi Dampak Program Broadband Learning Center Di Taman Prestasi Surabaya. *Publika*, 283–294. <https://doi.org/10.26740/publika.v9n2.p283-294>
- Azhali, F. M., & Widyastuti, H. (2023). Microbus Stop Optimization Based on Gis for Bus Feeder on the Gunung Anyar – Kenjeran Route. *Journal of Civil Engineering*, 38(1), 46. <https://doi.org/10.12962/j20861206.v38i1.16127>
- Budiarti, R. P. N. (2023). Implementation of Big Data Information System Using Open-Source Metabase for Civil Registration and Vital Statistics Data Visualization in Surabaya. *Joiv International Journal on Informatics Visualization*, 7(4), 2358. <https://doi.org/10.30630/joiv.7.4.1722>
- Cervantes, C. T., García, E. R., & Rivera-Trigueros, I. (2017). *The Use of NVivo in the Different Stages of Qualitative Research*. 381–392. https://doi.org/10.1007/978-3-319-61121-1_32
- Choi, M., Lee, J., & Hwang, K. (2018). Information Systems Security (ISS) of E-Government for Sustainability: A Dual Path Model of ISS Influenced by Institutional Isomorphism. *Sustainability*, 10(5), 1555. <https://doi.org/10.3390/su10051555>
- Choudrie, J., Zamani, E. D., Umeoji, E., & Emmanuel, A. E. (2017). Implementing E-Government in Lagos State: Understanding the Impact of Cultural Perceptions and Working Practices. *Government Information Quarterly*, 34(4), 646–657. <https://doi.org/10.1016/j.giq.2017.11.004>

- Clifford, S., Smith, J. A., & Christie, B. (2020). "You See the Very Sharp Edge of the Problems of Prejudice in Town": Youth Service Providers' Perceptions of a Regional Community Facebook Group. *Social Media + Society*, 6(1). <https://doi.org/10.1177/2056305120904708>
- Dalkin, S., Forster, N., Hodgson, P., Lhussier, M., & Carr, S. M. (2021). Using computer assisted qualitative data analysis software (CAQDAS; NVivo) to assist in the complex process of realist theory generation, refinement and testing. *International Journal of Social Research Methodology*, 24(1), 123–134. <https://doi.org/10.1080/13645579.2020.1803528>
- Dewi, R. S., & Yafiz, M. (2024). *The Role of Law in Encouraging Innovation in Village Financial Management*. 23(03), 844–861.
- Dias, G. P. (2020). Determinants of E-Government Implementation at the Local Level: An Empirical Model. *Online Information Review*, 44(7), 1307–1326. <https://doi.org/10.1108/oir-04-2020-0148>
- Elfarargy, H., Irby, B. J., Abdelrahman, N., Webb, G. C., Abney, A., Holley, S., Villarreal, E., & Fahrenwald, C. (2022). Supporting a Statewide Policy Consideration: Virtual Advancing Educational Leadership Training During COVID-19. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.958908>
- Elgohary, E. M., & Abdelazyz, R. (2020). The Impact of Employees' Resistance to Change on Implementing E-government Systems: An Empirical Study in Egypt. *The Electronic Journal of Information Systems in Developing Countries*, 86(6). <https://doi.org/10.1002/isd2.12139>
- Gable, M. (2014). Efficiency, Participation, and Quality: Three Dimensions of E-Government? *Social Science Computer Review*, 33(4), 519–532. <https://doi.org/10.1177/0894439314552390>
- Giedraitytė, V., Smaliukienė, R., & Vedlūga, T. (2022). The Impact of Citizen Participation on Public Sentiments During Crises: Comparative Study of Estonia, Latvia, and Lithuania. *Sustainability*, 14(24), 16981. <https://doi.org/10.3390/su142416981>
- Grossman, S., Agosto, D. E., Winston, M., Epstein, R. N. E., Cannuscio, C. C., Martínez-Donate, A. P., & Klassen, A. C. (2021). How Public Libraries Help Immigrants Adjust to Life in a New Country: A Review of the Literature. *Health Promotion Practice*, 23(5), 804–816. <https://doi.org/10.1177/15248399211001064>
- Hassan, H., Shehab, E., & Peppard, J. (2011). A Framework for E-Service Implementation in the Developing Countries. *International Journal of Customer Relationship Marketing and Management*, 2(1), 55–68. <https://doi.org/10.4018/jcrmm.2011010104>
- Hertati, D. (2023). Improving the Quality of Public Services Through Innovation of Online Complaints Based on the Wargaku Application. *Journal La Sociale*, 4(3), 97–102. <https://doi.org/10.37899/journal-la-sociale.v4i3.831>
- Indama, V. (2022). Digital Governance: Citizen Perceptions and Expectations of Online Public Services. *Isslp*, 1(2), 12–18. <https://doi.org/10.61838/kman.isslp.1.2.3>
- Ingrams, A., Manoharan, A., Schmidhuber, L., & Holzer, M. (2018). Stages and Determinants of E-Government Development: A Twelve-Year Longitudinal Study of Global Cities. *International Public Management Journal*, 23(6), 731–769. <https://doi.org/10.1080/10967494.2018.1467987>
- Julier, R., & Benfield, J. K. (2022). A Qualitative Exploration of How Oral Trials Are Used in Dysphagia Management in One Inpatient Hospital. *International Journal of Language & Communication Disorders*, 57(2), 340–351. <https://doi.org/10.1111/1460-6984.12698>

- Justisia, P., Komunikasi, M., & Kajian, D. A. N. (2024). *Pena Justisia*: 23(3).
- Kashan, A. J., Wiewiora, A., & Mohannak, K. (2021). Unpacking Organisational Culture for Innovation in Australian Mining Industry. *Resources Policy*, 73, 102149. <https://doi.org/10.1016/j.resourpol.2021.102149>
- KECO, R., TOMORRI, I., & TOMORRI, K. (2023). Quality Evaluation of E-Government Services – The Case of Albania. *Transylvanian Review of Administrative Sciences*, 68 E, 20–33. <https://doi.org/10.24193/tras.68e.2>
- Khan, A., & Krishnan, S. (2021). Citizen Engagement in Co-Creation of E-Government Services: A Process Theory View From a Meta-Synthesis Approach. *Internet Research*, 31(4), 1318–1375. <https://doi.org/10.1108/intr-03-2020-0116>
- Khan, S., Shael, M., Majdalawieh, M., Nizamuddin, N., & Nicho, M. (2022). Blockchain for Governments: The Case of the Dubai Government. *Sustainability*, 14(11), 6576. <https://doi.org/10.3390/su14116576>
- Kim, S., & Lee, J. (2012). E-Participation, Transparency, and Trust in Local Government. *Public Administration Review*, 72(6), 819–828. <https://doi.org/10.1111/j.1540-6210.2012.02593.x>
- Lawhaishy, Z. B., & Othman, A. H. A. (2022). Introducing an Islamic Equity-Based Microfinance Models for MSMEs in the State of Libya. *Qualitative Research in Financial Markets*, 15(1), 1–28. <https://doi.org/10.1108/qrfm-01-2021-0017>
- Liu, S. M., & Yuan, Q. (2015). The Evolution of Information and Communication Technology in Public Administration. *Public Administration and Development*, 35(2), 140–151. <https://doi.org/10.1002/pad.1717>
- Lykidis, I., Drosatos, G., & Rantos, K. (2021). The Use of Blockchain Technology in E-Government Services. *Computers*, 10(12), 168. <https://doi.org/10.3390/computers10120168>
- Mabizela, H. (2023). Monitoring and Evaluation as Critical Approach to Enhance the Performance of Local Government: South Africa. *International Journal of Research in Business and Social Science (2147-4478)*, 12(7), 74–84. <https://doi.org/10.20525/ijrbs.v12i7.2746>
- Maulana, R. Y. (2020). Collaborative Governance in the Implementation of E-Government-Based Public Services Inclusion in Jambi Province, Indonesia. *Journal of Governance*, 5(1). <https://doi.org/10.31506/jog.v5i1.7317>
- Megawati, S., Epriliantor, D. F., Mahdiannur, M. A., Sidik, R. M., & Fajar, M. (2023). Evaluation of Patient Data Protection in the Implementation of the E-Health Program in the City of Surabaya. *Journal La Sociale*, 4(1), 20–25. <https://doi.org/10.37899/journal-la-sociale.v4i1.744>
- Mudjahidin, Putri, N. A., Parvian, A., Junaedi, A., & Lukman. (2022). Cross-Organizational Performance of E-Government at Surabaya City in Indonesia. *Iadis International Journal on WWW/Internet*, 20(1). https://doi.org/10.33965/ijwi_202220104
- Munyoka, W., & Maharaj, M. (2019). Privacy, Security, Trust, Risk and Optimism Bias in E-Government Use: The Case of Two Southern African Development Community Countries. *Sa Journal of Information Management*, 21(1). <https://doi.org/10.4102/sajim.v21i1.983>
- Musa, M. F., Yusof, M. R., Samsudin, N. S., & Halil, F. M. (2017). The Industrialised Building System Modular System (IBSMS) Framework. *Environment-Behaviour Proceedings Journal*, 2(5), 105. <https://doi.org/10.21834/e-bpj.v2i5.713>
- Nafi'ah, B. A. (2023). Local Government Expansion of Mobile Governance During the Pandemic. *Jurnal Borneo Administrator*, 19(2), 191–204. <https://doi.org/10.24258/jba.v19i2.1129>

- Nani, D. A., & Ali, S. (2020). Determinants of Effective E-Procurement System: Empirical Evidence From Indonesian Local Governments. *Jurnal Dinamika Akuntansi Dan Bisnis*, 7(1), 33–50. <https://doi.org/10.24815/jdab.v7i1.15671>
- Nurdin, N., Scheepers, H., & Stockdale, R. (2022). A Social System for Sustainable Local E-Government. *Journal of Systems and Information Technology*, 24(1), 1–31. <https://doi.org/10.1108/jsit-10-2019-0214>
- Patwardhan, P., Kerr, G., Patwardhan, H., Kelly, L., Habib, S., Mortimer, K., & Laurie, S. (2021). Ad Agency Leadership in the US, UK, and Australia: A Mixed-Method Analysis of Effective Attributes and Styles. *Journal of Advertising*, 51(2), 223–239. <https://doi.org/10.1080/00913367.2021.1891159>
- Pham, L. (2023). E-Government Service Quality, Perceived Value, Satisfaction, and Loyalty: Evidence From a Newly Emerging Country. *Journal of Public Policy*, 43(4), 812–833. <https://doi.org/10.1017/s0143814x23000296>
- Prabawa, E., Widjayanto, J., Ali, Y., Saragih, H., Sarjito, A., & Sufa, S. A. (2022). Strategi Komunikasi Antar Budaya Tentara Nasional Indonesia (TNI) di Papua. *Jurnal Riset Komunikasi*, 5(1), 113–126. <https://doi.org/10.38194/jurkom.v5i1.479>
- Rahayu, T. (2023). Building a Cultural Model of Excellent Service at the Polytechnic Pelayaran Surabaya in Welcoming the Era of Society 5.0. *International Journal of Multidisciplinary Approach Research and Science*, 2(01), 99–106. <https://doi.org/10.59653/ijmars.v2i01.362>
- Reichert, M., Sawatsky, R., Favel, R., Boehme, G., Breitkreuz, L., Dickie, K., & Lovo, S. (2023). Indigenous Community-Directed Needs Assessment for Rehabilitation Therapy Services. *International Journal of Circumpolar Health*, 82(1). <https://doi.org/10.1080/22423982.2023.2183586>
- Rooks, G., Matzat, U., & Sadowski, B. M. (2017). An Empirical Test of Stage Models of E-Government Development: Evidence From Dutch Municipalities. *The Information Society*, 33(4), 215–225. <https://doi.org/10.1080/01972243.2017.1318194>
- Shakeela, A., & Weaver, D. (2014). The Exploratory Social-Mediatized Gaze. *Journal of Travel Research*, 55(1), 113–124. <https://doi.org/10.1177/0047287514532369>
- Sholehah, F. P. F. (2024). Development and Evaluation of Drug Management Information System in Mijen Community Health Center Demak. *Jurnal Manajemen Dan Pelayanan Farmasi (Journal of Management and Pharmacy Practice)*, 14(1), 51. <https://doi.org/10.22146/jmpf.82802>
- Stier, S. (2015). Political Determinants of E-Government Performance Revisited: Comparing Democracies and Autocracies. *Government Information Quarterly*, 32(3), 270–278. <https://doi.org/10.1016/j.giq.2015.05.004>
- Sudrajat, A. R. (2023). Implementation of Ethics in Public Services Towards Good Governance in the Perspective of Public Administration. *Journal of Social Science*, 4(1), 40–44. <https://doi.org/10.46799/jss.v4i1.521>
- Susanto, T. D. (2015). Measuring E-Government Implementation Program: A Case Study of Surabaya City, Indonesia. *International Journal of Information Systems and Engineering*, 3(1), 151–159. <https://doi.org/10.24924/ijise/2015.11/v3.iss1/151.159>
- Syahputri, N. R., & Kusdarini, E. (2021). Implementation of Good Governance Through E-Governance in Modern Law Countries During the Covid-19 Pandemic. *Constitutionale*, 2(2), 103–114. <https://doi.org/10.25041/constitutionale.v2i2.2340>
- Tiika, B. J. (2024). Evaluating E-Government Development Among Africa Union Member States: An Analysis of the Impact of E-Government on Public Administration and

- Governance in Ghana. *Sustainability*, 16(3), 1333.
<https://doi.org/10.3390/su16031333>
- Tristiana, E., Bagus, M., & Wicaksono, A. (2024). *Pena Justisia*: 23(1), 1–8.
- Widayat, R. M., Aji, J. S., & Kurniawan, C. (2023). A Systematic Review of Social Media and Government in the Social Science Discipline. *Journal of Contemporary Governance and Public Policy*, 4(1), 59–74. <https://doi.org/10.46507/jcgpp.v4i1.100>
- Yusmanizar, Y. (2023). Developing E-Government Policy Through Social Media Platform in Makassar City, Indonesia. *Otoritas Jurnal Ilmu Pemerintahan*, 13(3), 454–468. <https://doi.org/10.26618/ojip.v13i3.11641>
- Zamawe, F. C. (2015). The Implication of Using NVivo Software in Qualitative Data Analysis: Evidence-Based Reflections. *Malawi Medical Journal*. <https://doi.org/10.4314/mmj.v27i1.4>