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E-GOVERNMENT UTILIZATION AND THE POLITICAL LOGIC OF NETWORK GOVERNANCE IN INDONESIA'S LOCAL ADMINISTRATION

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ABSTRACT. This article investigates the utilization of E-Government applications within the framework of network governance in Indonesia's local administration. Drawing on both qualitative and quantitative methods, this study captures public perceptions of electronic information-based government services and explores the political and institutional dynamics underlying their implementation. Data were collected through questionnaires, document analysis, interviews, and focus group discussions (FGDs) with purposively selected informants, including leaders and staff from local government institutions. The findings demonstrate that e-government platforms enhance service efficiency, transparency, and public satisfaction. Moreover, these applications promote openness in financial management and intra-organizational communication, contributing to greater trust and comfort among citizens. Framed within the theory of network governance, the study reveals how digital service delivery is not merely a technical process but a political one—shaped by inter-institutional collaboration, administrative adaptability, and the evolving role of the state in a digitally mediated environment. These insights affirm the growing necessity of integrating digital infrastructure with political and organizational readiness to achieve effective and sustainable governance in the digital age.
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Keywords: E-goverment; Network Governance; Public Service; Digital Administration

INTRODUCTION

Government in today's digital era is increasingly dependent on electronic administrative service structures. Every government needs an administrative service system based on electronic information technology (e-government) to streamline its operations, improve service delivery, and ensure transparent governance. The use of information technology has the potential to perform many high-quality services, provide satisfaction, and increase customer trust and loyalty (Zyberi & Luzo, 2022). Information technology is seen as a powerful tool for enhancing government services, providing efficient, user-centered, and scalable solutions for the public. These systems, when designed and executed properly, can lead to increased citizen satisfaction, improved public trust, and greater accountability.

The utilization of information technology applications in administrative services has increased acceptance and successful implementation by both governments and consumers (Lim et al., 2020). This digital transformation in public administration enables governments to deliver services more efficiently, thereby improving the performance of public institutions. It facilitates the development of efficient workflows that ensure the provision of services in a more timely and cost-effective manner, while simultaneously reducing bureaucracy (Baillieu et al., 2020). The digitization of government operations is not only about streamlining processes but also about fostering a more responsive governance system that aligns with the needs and expectations of the public.

Information technology-based government administration services also play a crucial role in governance by ensuring that data is managed and processed in a way that upholds its integrity, reliability, and security. By leveraging digital technologies, governments can facilitate the creation of clean, accurate, and trustworthy reports, analyses, and conclusions, thereby mitigating the risks of poor decision-making that often arise from inaccurate data (Smallwood, 2014). The ability of information technology to safeguard economic growth, national competitiveness, and address complex societal challenges has become a central feature of modern governance (Nam et al., 2022). For example, by utilizing data-driven decision-making processes, governments can more effectively respond to emerging crises, enhance strategic policy implementation, and manage public resources more equitably.

Moreover, the application of ICT in administrative services contributes to cost reduction, making it easier for governments to manage expenses while ensuring that public resources are used efficiently. ICT can help minimize resource consumption, which is critical in the face of growing fiscal constraints faced by governments worldwide (Mandičák et al., 2021). Beyond economic advantages, ICT enables social connectivity, promoting a more inclusive society by bridging gaps between individuals, organizations, and geographical regions (Q. Guo et al., 2016). This

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social connectivity is a crucial component in fostering a more engaged and participatory citizenry, which is essential for sustaining democratic governance in the digital age.

The evolution of ICT in public administration also leads to advances in knowledge competencies within government institutions, allowing for greater innovation and the ability to adapt to changing public expectations (Hernández-Dionis et al., 2022). The integration of digital tools into public service delivery fosters greater collaboration, knowledge sharing, and learning, ultimately benefiting both government agencies and the citizens they serve. Additionally, ICT enhances learning opportunities for both public service employees and citizens by enabling them to acquire new skills that are essential in the digital economy (Komar et al., 2022). This ongoing learning process, combined with a culture of continuous improvement, is critical in achieving the long-term success of e-government initiatives.

In addition to the technical aspects, information and communication technologies play a vital role in promoting transparency and accountability in government operations. Public service information technology can encourage the implementation of administrative services in a more transparent manner, increase efficiency, and reduce disparities between urban and rural areas, as well as between different socioeconomic strata (Schulz & Feist, 2021). By facilitating the exchange of standardized, accessible data, digital technologies contribute to more efficient monitoring, accreditation, and regulatory processes, enhancing public confidence in government actions (Oliveira et al., 2020).

The application of ICT has also led to advances in urban planning, governance, and community participation. For example, smart city initiatives and digital governance platforms have enabled cities to become more sustainable, efficient, and inclusive by fostering innovation in technology that is both transparent and environmentally responsible (Oliveira et al., 2020). Through these advancements, ICT is reshaping how governments interact with citizens, enabling greater participation, responsiveness, and inclusiveness in decision-making processes.

However, the adoption of ICT in governance is not without its challenges. Despite the numerous benefits that digital technology brings, there are still significant barriers to its implementation. One of the primary challenges is the digital divide, which exists both within countries and between different regions. In many cases, local governments, especially in rural areas, face difficulties in adopting and implementing e-government systems due to inadequate infrastructure, limited resources, and a lack of digital literacy (Choi et al., 2016). Additionally, governments that fail to fully integrate ICT into their operations are at risk of being left behind, marginalized by the rapid pace of technological change and the increasing expectations of citizens in terms of service delivery.

The process of adopting e-government requires more than just technological infrastructure; it necessitates changes in governance structures and the development of new practices and norms. The Network Governance Theory provides a useful framework for understanding how digital technologies are reshaping governance. Network governance refers to the collaborative processes and relationships that emerge between various actors—government agencies, the private sector, and civil society—in the design and delivery of public services. Unlike traditional hierarchical models of governance, network governance relies on the decentralized coordination of actors through networks that emphasize mutual trust, shared objectives, and collective decision-making (Sørensen & Torfing, 2005).

In the context of e-government, network governance enables multi-level coordination and the seamless integration of digital services across different sectors. By facilitating cooperation between governmental bodies, non-governmental organizations, and the private sector, e-government systems create an environment where resources, knowledge, and expertise can be shared, resulting in more effective and inclusive public service delivery (Provan & Kenis, 2008). In Indonesia, local governments such as Kendari have begun to implement e-planning, e-budgeting, and e-health initiatives, exemplifying how network governance principles can be applied to digital public administration (Janssen et al., 2012).

However, the shift towards network governance also requires addressing several key challenges. Political will, leadership commitment, and organizational coherence are critical in ensuring that e-government initiatives succeed. These elements are essential in overcoming resistance to change and fostering an environment conducive to innovation and collaboration (Gupta et al., 2019; Pavlichev, 2004). Furthermore, governments must invest in capacity building, education, and training to ensure that public sector employees are equipped with the skills necessary to navigate and manage the complexities of digital governance.

This study aims to critically examine the utilization of e-government applications within Indonesia's local administration by emphasizing the political logic that underpins network governance

practices. Rather than treating e-government merely as a technical or administrative innovation, the research positions it as a politically embedded process—one that involves complex interactions among government institutions, non-governmental actors, and citizens within a digitally mediated environment.

METHOD

The research adopts a mixed methodology that includes qualitative and quantitative approaches. The focus of this research is on government organizations that implement electronic-based public services, such as the Regional Planning and Development Agency (e-planning), the Regional Financial and Asset Management Agency (e-budgeting), the Population and Civil Registry Office (electronic population administration services), the Kendari City Regional General Hospital (electronic health services), and the Investment and One-Stop Integrated Service Office (e-service).

In collecting data, this study used questionnaires, semi-structured interviews, document studies, and focus group discussions (Husain et al., 2025). Questionnaires were designed to measure user satisfaction and frequency of application use, while interviews provided in-depth insights from stakeholders. Document studies and focus groups helped understand the perceptions and experiences of users and technical staff. The research involved 30 informants consisting of application users, IT staff, and leaders in local agencies, selected through purposive sampling based on criteria such as experience and position in the organization.

Scheduled for six months, the study allocated one month for data collection, two months for analysis, and the rest for report writing. Interviews were organized for one hour, group discussion sessions for two hours, and questionnaire completion took about 30 minutes per respondent. Qualitative data analysis techniques include data reduction, data presentation, conclusion drawing and verification, while quantitative analysis uses Simple Regression with the formulation $Y = a + b1X1$, where Y represents community satisfaction as the dependent variable.

RESULT AND DISCUSSION

The discussion of this research begins with an examination of the utilization of e-government applications across various local government agencies and institutions. These include platforms such as e-planning, e-budgeting, e-health, licensing services, and population administration services, all of which are implemented through integrated systems like the Local Government Information System (SIPD), Hospital Management Information System (SIMRS), Online Single Submission (OSS), Smart Licensing Applications, the Population Administration Information System (SIAK), and the Jaga Kendari app. These digital tools represent the backbone of local public service delivery in the digital age.

However, in line with the study's central focus on the political logic of network governance, these applications are not viewed solely as administrative or technological innovations. Instead, they are understood as part of a complex political process that reflects how digital transformation in public services is deeply intertwined with institutional collaboration, governance culture, and power dynamics within and across local government units.

Following this, the research discusses how these e-government applications contribute to the improvement of service standards—specifically in terms of strategic vision, accountability, efficiency and effectiveness, fairness, consensus, responsiveness, transparency, legal certainty, and participation. These standards are not merely outcomes of system functionality, but rather products of coordinated governance efforts where multiple actors—government officials, civil servants, developers, and the community—interact within a shared digital governance network. In this context, network governance becomes a lens to understand how local governments build digital ecosystems that aim not only to serve efficiently, but to govern responsively and collaboratively in a digitally mediated environment.

Utilization of E-Government in Government Services

The implementation of e-government intended in this study is the implementation in the implementation of local government management and public services, including the implementation of e-planning, e-budgeting, e-health services, licensing and non-licensing services and population administration services. The City Government through the Regional Planning and Development Agency has implemented e-planning through a web-based application, namely the regional government information system since 2020. The stages of planning, budgeting, implementation, reporting and accountability have followed the mechanism stipulated in the Minister of Home

Affairs Regulation Number 70 of 2019 concerning Regional Government Information Systems. The Local Government Information System functions to make it easier for the central government to control and synchronize the budget. The implementation of e-budgeting at the Regional Finance and Asset Agency, which previously used the Regional Management Information System, and the Regional Financial Information System, always coordinates with all regional apparatus organizations in serving the community. The utilization of information technology applications is responsive to the level of service, and in accordance with the wishes of the community, and monitoring performance related to overall costs (Street, 2001). E-government facilitates service, information security, satisfaction and effectively increases public awareness (Almehmadi, 2020). The adoption of e-government services affects ease of use on attitudes, perceived usefulness, and public trust (Ahmad et al., 2021). Government information technology involves processes and controls to ensure that information is correct and accurate (Smallwood, 2014). Data technology systems ensure efficiency and reliability, optimizing management quality issues (Kulkarni et al., 2021).

Public services in the health sector based on e-government have been utilized by the Regional General Hospital, an application-based health service to facilitate urban community services. One of the applications developed is the hospital management information system since 2019, and this has been integrated with all local government health service units. The application is centered on one service, namely health services aimed at the private medical care cantre building, by providing good public health services. Similarly, the situation of licensing and non-licensing services, at the One Stop Integrated Service Investment office, has utilized online single submission, so that the application for investment permits is now much faster and more accountable. Utilization of the Smart application of Integrated Licensing Services for the Public since 2018, intended for registration in the field of licensing and data services, and has issued licenses around 14,000 letters. E-government is beneficial in public administration, it can improve the provision of information and interactive services that can be accessed through various channels (Androniceanu et al., 2020). E-government facilitates the opportunity for every citizen in administrative services and decision making (Aljazzaf et al., 2020). E-government in government is effective for sustainable development, and improves corruption control, competitiveness and accountability (Dhaoui, 2022). E-government technology can reduce costs and time, increase satisfaction and trust (Aranyossy, 2022).

The utilization of e-government-based public services has been applied to population administration services and Civil Registry, the services have been optimal and satisfying for the community, such as fast service, the number of queues that do not accumulate, and good officer response. The use of e-government emphasizes the quality of technology-based community services in accordance with the main tasks and functions, namely population administration services. Technology-based governance. has used an information technology-based online system through the population administration system application, electronic identity cards, child identity cards have been printed on white paper, and are based on electronic signatures (QR codes), systemically connected to integrated population administration system data. Utilization of information and communication technology can improve service functions, electronic services in accordance with the expectations and needs of the community (Toleikienė et al., 2022). The application of information technology is significant with public administration, easily accessible and transparent (Androniceanu et al., 2020). E-government innovation through the development of the guard application, which is an application where people can check the number of queues online at any time, the application is used for consultation. The use of e-government is the starting point for adapting Smart City, and through the optimization of information communication technology, it can also be used to identify, analyze and control various kinds of data effectively and efficiently. (Table 1)

Framed within the lens of Network Governance Theory, the utilization of e-government applications in Kendari City cannot be understood solely as a matter of technological adoption. Rather, these efforts signify the emergence of a governance network involving multiple actors—government departments, IT system developers, service delivery staff, and the community—that coordinate across administrative boundaries. According to Sørensen & Torfing (2005), network governance is characterized by interdependent actors working collaboratively within negotiated frameworks, emphasizing trust, mutual gains, and flexibility (Sørensen & Torfing, 2005).

The implementation of applications like e-planning, e-budgeting, and hospital information systems reflects how governance becomes increasingly horizontal and decentralized, requiring adaptive collaboration among agencies. These digital

Table 1. Matrix of E-Goverment Application Utilization in Government Administration in Kendari City

No	Institution	E-Gov Application	Governance area
1	Regional Development Planning Agency	Local Government Information System	*E-Planning*
2	Regional Financial and Asset Management Agency	Local Government Information System	*E- Budgeting*
3	Regional General Hospital	Hospital Management Information System	*E- Health*
4	Investment and One-Stop Integrated Service Office	Online Single Submission, Smart Application for Integrated Licensing Services for Public	Licensing and Non-Licensing Services
5	Population and Civil Registry Office	Population Administration Information System, Jaga Kendari	Population administration services

Source: Processed by Researchers, 2024

tools represent a new form of public administration where decision-making is no longer hierarchical but distributed across a network of institutions and actors. Hence, the utilization of e-government in Kendari showcases not only technological progress but also a political logic of negotiation, coordination, and co-responsibility within a digitally mediated governance environment.

Improvement of Government Service Standards Based on Electronic Information

The system of services to the public based on electronic information, in planning, population and civil registration systems, health services, licensing, staffing and regional finances, has provided and convenience for employees in carrying out tasks, namely the lack of paper use, streamlining the planning and budgeting process, and all stages must go through the process and recording in the application, facilitating data documentation and in managing work programs from each regional apparatus, more efficiently saving time and energy in the planning process, more transparent. The utilization of technology through E-government, contributes to managing the sustainable development of developed countries, facilitating integrated policies, driving change, and increasing transparency, accountability, and efficiency (Castro & Lopes, 2022). The utilization of information and communication technology provides additional opportunities to make energy systems smarter, more efficient, transparent, and secure in the long term (Khatoon et al., 2019). The success of Information Systems can improve organizational effectiveness, strengthen organizational learning, increase opportunities to achieve success, and maximize overall returns for an organization (J. X. Guo, 2019). Technology becomes a tool for changing human habits regarding information accessibility, improving experiences and fulfilling needs for consumers (Trung & Van Thanh, 2022).

The strategy of service to the community based on electronic information has improved the quality of service optimally, improved task-oriented human resources through education and training, improved facilities and infrastructure as needed, increased cross-sector cooperation and the private sector through mutually responsible and profitable cooperation. This is in accordance with the statement of service officers to the community, that the implementation of communication technology-based governance has been utilized such as the use of management information system applications, integrated service delivery information systems, tool infrastructure applications, recording and reporting systems, e-budgeting, e-claims, and information disclosure applications, has improved service quality and satisfaction to the community (Interview Results with Asrul, June 2022). Service system innovations follow the principles of good governance, such as the principle of participation, providing a forum for the community to submit suggestions and complaints, also considering the principle of legal capacity where services at Rumash Sakit are carried out according to Standard Operating Procedures, fairly without differentiating the status of the community, and according to the principle of transparency providing access to the community, according to applicable terms and conditions. The adoption of e-government is easy to use, reliable, moderate transparency, and accountability (Nofal et al., 2021). Generate consensus to increase the resilience and sustainability of a country's life (Kennedy et al., 2020).

The utilization of electronic applications in serving urban communities, based on the results of the research conducted, that there is efficiency both efficiency in service and efficiency in the use of applications. Similarly, the effectiveness of both effectiveness in service and effectiveness in the use of applications, everything runs optimally judging from the speed and achievement of application goals. There is transparency in services, openness

in financial matters, openness between leaders and employees, thus providing a sense of comfort to the community. The research results based on statistical analysis are as in the following table.

Table 2. Simple Analysis Results

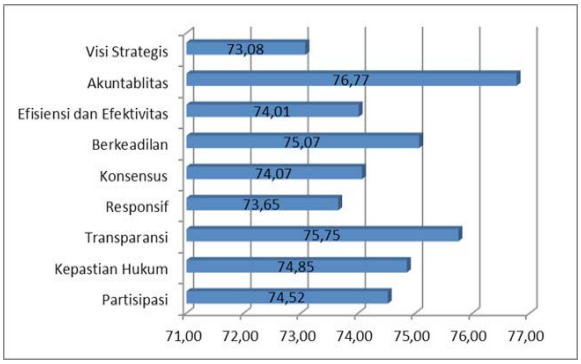
Variable	Regression Coefficient (b)	t_{hitung} (db=30)	t_{sig}
Government Service System (X)	0.619	6.751	0.000
Constanta (a)	88.139		
Koefisien Regresi	0.639		
(R)	0.408		
R Square	0.000		
F_{sig}			

Source: Researcher's analysis 2024

Based on the results of the regression analysis, the multiple linear regression equation can be found as follows: Y = 88.139a + 0.619x. The regression equation has the following meaning:

a. The constant (a) is 88.139, indicating that community satisfaction before being influenced by the government service system is positive 88.139 when measured on a Likert measurement scale.
b. The regression coefficient for the government service system variable (X) is 0.619, indicating that there is a positive effect of changes in the government service system on community satisfactio

According to the research results, the correlation coefficient between the government service system and community satisfaction in Kendari City is 0.639, which means that there is a very strong and positive relationship. This means that the service system based on information technology will increase public satisfaction. Based on the calculation results, the R Square value is 0.408. This means that the contribution of the government service system variable to community satisfaction is 40.80%. Based on the F test, it shows that the government service system (X) simultaneously has a significant effect on public services (Y). This is indicated by the results of the F test at the 95% confidence level or the real level α = 0.05 free degree 30, where Fsig = 0.000 <0.05. This means that the government service system has a significant effect on public services in Kendari City. And based on the t test, it shows that according to the results of computer analysis (SPSS version 16.0) it can be seen that the government service system (X) partially has a significant effect on public services in Kendari City. This is indicated by the results of the t test at the 0.95% confidence level or the real level α = 0.05 free degree 31, where tsig 0.000 <0.05. This means that good governance has a significant effect on public services in Kendari City.



Source: Researcher's analysis 2024

Figure 1. Improvement of Information Technology-Based Government Service Standards

From the results of the assessment of the government service system, it is known that all aspects get a score in the high category (67.66-100) or are good, where the strategic vision gets a score of 73.08. Accountability gets the highest score with a score of 76.77, efficiency and effectiveness with a score of 74.01, fairness with a score of 75.07, consensus with a score of 74.07, responsiveness with a score of 73.65, transparency with a score of 75.75, legal certainty with a score of 74.85, and participation with a score of 74.52. From the results of the average assessment of the Government service system, it is known that the accountability indicator is the highest indicator with a score of 76.77 percent.

This section highlights how digital applications contribute to the performance dimensions of governance—such as transparency, accountability, responsiveness, and participation. When assessed through the theory of network governance, these performance indicators are not merely the outcomes of system design but rather the products of inter-institutional alignment and coordination. The digital platforms act as interfaces that connect diverse actors—regional planning bodies, finance departments, and health service units—into an integrated network aimed at co-producing public services.

Moreover, the emphasis on cross-sectoral cooperation, public-private collaboration, and community engagement (as mentioned in the original interviews and evaluations) illustrates that governance is becoming more relational and negotiated. This affirms the argument that in the digital age, service innovation is politically shaped—dependent on how effectively actors within governance networks manage power dynamics, distribute responsibilities, and share data. Thus, the improvements in service quality in Kendari reflect not just digital literacy

or infrastructure availability, but also a maturing networked governance regime capable of fostering sustainable public administration.

Framed within the lens of Network Governance Theory, the utilization of e-government applications in Kendari City cannot be understood solely as a matter of technological adoption. Rather, these efforts signify the emergence of a governance network involving multiple actors—government departments, IT system developers, service delivery staff, and the community—that coordinate across administrative boundaries. According to Sørensen & Torfing (2005), network governance is characterized by interdependent actors working collaboratively within negotiated frameworks, emphasizing trust, mutual gains, and flexibility (Sørensen & Torfing, 2005).

The implementation of applications like *e-planning*, *e-budgeting*, and *hospital information systems* reflects how governance becomes increasingly horizontal and decentralized, requiring adaptive collaboration among agencies. These digital tools represent a new form of public administration where decision-making is no longer hierarchical but distributed across a network of institutions and actors. Hence, the utilization of e-government in Kendari showcases not only technological progress but also a political logic of negotiation, coordination, and co-responsibility within a digitally mediated governance environment.

Viewed through the prism of network governance, the findings of this study confirm that digital public service delivery is a political process as much as a technical one. The high scores in governance values—accountability, transparency, participation—are not accidental, but outcomes of effective coordination and shared norms within the institutional network. The statistically significant relationship (R=0.639) between the government service system and citizen satisfaction underscores how governance quality is co-produced, not commanded.

CONCLUSION

The aforementioned description leads one to the conclusion that the standardization of services related to strategic vision, accountability, efficiency and effectiveness, justice, consensus, responsiveness, transparency, legal certainty, and participation has been the path towards improving the urban government service system through the use of information technology. The community now enjoys convenience and satisfaction as a result of the higher service standards. According to study findings, there is efficiency in both service delivery and application usage when it comes to the use of electronic apps in metropolitan populations. Similar to this, efficiency—both in terms of service delivery and application use—runs smoothly based on the pace at which application goals are met. There is transparency in services, openness in financial matters, openness between leaders and employees, thus providing a sense of comfort to the community. The contribution confirms that the use of information technology in all aspects of service to the community, at this time and in the future, is increasingly needed. These insights affirm the proposition that the integration of digital infrastructure must be matched by institutional readiness and adaptive governance mechanisms. The case of Kendari City demonstrates how local governments can navigate digital transitions by cultivating collaborative ecosystems that align technology with inclusive, legitimate, and politically responsive service delivery.

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