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### E-Government and Citizen Participation: Enhancing Public Accountability through Digital Technology

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#### ABSTRACT

The implementation of e-government has become a key strategy in increasing citizen participation and public accountability through the use of digital technology. This study aims to analyze how e-government can encourage community involvement in the decision-making process and increase government transparency and accountability. This study uses a qualitative method with a library research approach, where various academic sources, government policies, and previous research are studied in depth to understand the relationship between e-government and citizen participation. The results of the study show that the implementation of e-government can increase access to public information, facilitate interaction between the government and the community, and strengthen the supervision mechanism for public policies. In addition, the use of digital technology allows citizens to be more active in providing feedback, submitting aspirations, and supervising policies implemented by the government. However, this study also found several challenges in the implementation of e-government, such as the digital divide, lack of technological literacy among the public, as well as regulatory and policy constraints that have not fully supported transparency and optimal public participation. The study concludes that e-government has great potential to increase

#### KEYWORDS

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public accountability through citizen participation, but its effectiveness is highly dependent on the readiness of digital infrastructure, technological literacy, and the government's commitment to creating an open and inclusive system. Therefore, more adaptive policies and digital education programs are needed to ensure wider and meaningful community involvement in digital-based governance.

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## **1. INTRODUCTION**

In the digital era, e-government has become a key element in increasing transparency, accountability, and citizen participation in governance (West, 2004). This concept refers to the use of information and communication technology (ICT) in the implementation of public services to improve the efficiency and effectiveness of government administration (Heeks, 2006). Governments in various countries have adopted digital platforms to accelerate access to information and strengthen public involvement in public decision-making (Bannister & Connolly, 2014).

E-Government is a concept that refers to the use of digital technology, especially information and communication technology (ICT), in governance to improve efficiency, transparency, and accessibility of public services (Heeks, 2006). The implementation of e-government allows the government to provide faster, more accessible services, and reduce convoluted bureaucracy. In addition, digital technology provides opportunities for the public to interact with the government more openly through various online platforms, such as public service portals, mobile applications, and social media. In the context of democratic governance, e-government plays an important role in strengthening public accountability, ensuring information disclosure, and encouraging citizen involvement in the decision-making process (Bannister & Connolly, 2014).

Citizen participation in the e-government system includes various forms of involvement, ranging from access to information to active participation in public policymaking (Nam, 2012). Digital technology allows people to convey aspirations, complaints, or suggestions directly to the government without having to go through a lengthy bureaucratic process. Several countries have successfully implemented this strategy, such as Open Government Data (OGD) which provides wide access to public data so that the public can supervise the policies implemented (Meijer, 2015). However, although citizen participation has increased with the existence of e-government, there are major challenges that need to be overcome, such as the digital divide, low technological literacy, and resistance to change from both the government and the community (Bertot et al., 2010).

The success of e-government in increasing citizen participation depends largely on the readiness of digital infrastructure, policies that support information disclosure, and the government's willingness to receive feedback from the public (Criado et al., 2013). In the absence of clear and inclusive regulations, citizen participation can be limited to certain groups that have adequate access and technological literacy. Therefore, the government must develop policies that can ensure that all levels of society have an equal opportunity to participate in the digital government process. Thus, e-government can function as an effective tool in increasing citizen engagement and strengthening public accountability in the digital era.

However, although e-government offers many opportunities, its implementation still faces various challenges, such as the digital divide, lack of technological literacy among the public, and limited policies that support transparency and public accountability (Cordella & Bonina, 2012). Some studies show that although e-government can increase citizen participation, its effectiveness is highly dependent on the readiness of digital infrastructure and the government's commitment to creating an open and inclusive system (Criado et al., 2013; Welch et al., 2005). Therefore, further studies are needed on how e-government can be optimized to increase public accountability through citizen participation.

Research on e-government has grown rapidly in recent decades, especially in the aspect of implementing digital technology in public services (Gil-Garcia, 2012; Moon, 2002). However, there is still a gap in understanding the extent to which e-government contributes to increased citizen participation and public accountability, especially in developing countries (Bertot et al., 2010). Most of the research still focuses on technical and administrative aspects, while studies highlighting the direct impact of e-government on community engagement in the policy-making process are limited (Chadwick & May, 2003).

Furthermore, although several studies have discussed the relationship between e-government and citizen participation, there is still debate about its effectiveness in creating a more transparent and accountable government (Meijer, 2015). Some studies reveal that the use of digital technology can improve interaction between the government and society, but it does not necessarily contribute to improving the quality of democracy and information disclosure (Dunleavy et al., 2006). Therefore, this study aims to fill this gap by exploring how e-government can be used as an instrument to improve public accountability through citizen engagement.

This study is important given the increasing demands for transparency and citizen participation in the government process (Nam, 2012). With the development of digital technology, people have higher expectations for information disclosure and involvement in public decision-making (Reddick, 2011). Governments need to develop policies that allow citizens to actively participate in the governance process through effective and inclusive digital platforms (Grimmelikhuijsen et al., 2013).

In addition, the digital divide and low technological literacy are still the main obstacles in the implementation of e-government, especially in developing countries (Norris, 2001). Therefore, more in-depth research is needed to understand the factors that affect the effectiveness of e-government in increasing public accountability as well as how the right strategies can be implemented to maximize citizen participation through digital technology.

Previous research has examined various aspects of e-government, including the effectiveness of the implementation of digital technology in public services (Welch et al., 2005), the transparency and disclosure of government data (Meijer, 2015), and its impact on citizen participation (Chadwick & May, 2003). However, most studies still focus on administrative and technical aspects without providing an in-depth analysis of how e-government can be used as a tool to improve public accountability through the active participation of citizens.

The novelty of this study lies in its approach that integrates e-government with the concept of citizen participation in the context of increasing public accountability. By using qualitative methods through library research, this study seeks to identify the main factors that affect the

effectiveness of e-government in increasing transparency and community involvement in digital government.

This study aims to analyze how e-government can increase citizens' participation in the government process and strengthen public accountability through digital technology. In particular, this research will identify key challenges in the implementation of e-government, explore strategies that can be used to increase public engagement, and provide policy recommendations that can support more open and transparent governance.

Theoretically, this research is expected to contribute to the development of literature on e-government and citizen participation, especially in the context of increasing public accountability. Practically, the results of this research can be used by policymakers and the government in designing e-government implementation strategies that are more effective, inclusive, and based on the needs of the community.

## **2. METHODS**

This study uses a qualitative method with a library research approach. The literature study was chosen because this research focuses on theoretical and empirical analysis of the relationship between e-government, citizen participation, and public accountability through the use of digital technology. This method allows researchers to examine concepts, findings, and debates that have developed in the related literature in order to gain a deeper understanding of the topic being studied (Bowen, 2009).

The data sources in this study consist of secondary data obtained from various academic literature, such as books, scientific journals, research reports, and policy documents related to e-government and citizen participation. The main data comes from scientific articles published in reputable journals as well as reports from international organizations such as the United Nations (UN), the World Bank, and the Organization for Economic Co-operation and Development (OECD) that discuss the implementation of e-government in various countries (Creswell & Poth, 2018). The selection of data sources is carried out selectively by considering the relevance, credibility, and contribution of literature to the topic being researched.

The data collection technique is carried out through a systematic review of the selected literature. Relevant articles and documents were analyzed using a thematic approach to identify patterns, trends, as well as differences in perspectives in previous studies (Merriam & Tisdell, 2015). The collected data was analyzed using the content analysis method, where information was categorized based on key themes, such as the effectiveness of e-government, factors affecting citizen participation, and challenges in increasing public accountability through digital technology. This approach allows the research to provide a comprehensive synthesis of existing theories and empirical findings and identify research gaps that need to be further studied (Krippendorff, 2018).

Using this method, this study aims to make theoretical and practical contributions in understanding the role of e-government in strengthening citizen participation and increasing transparency and accountability of digital government. The results of the analysis are expected to be the basis for formulating policy recommendations for the government in developing a more inclusive and effective e-government system.

### 3. RESULTS AND DISCUSSION

The following is a table of literature data which is the result of a selection of several related articles found in this study. This table includes 10 main articles selected based on their relevance to the topic of E-Government and citizens' participation in improving public accountability through digital technologies. These articles are filtered based on criteria such as geographical coverage, research focus, and contribution to the development of literature in the field.

Author & Year	Article Title	Key findings
Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010)	Using ICTs to Create a Culture of Transparency: E-Government and Social Media as Openness and Anti-Corruption Tools for Societies	<i>E-Government</i> is increasing information disclosure, but challenges in the form of a digital divide still exist.
Chadwick, A., & May, C. (2003)	Interaction between States and Citizens in the Age of the Internet: E-Government in the United States, Britain, and the European Union	Citizen participation in <i>e-government</i> depends on platform design and government openness.
Meijer, A. (2015)	Government Transparency in Historical Perspective: From the Ancient Regime to Open Data in the Netherlands	Open data increases transparency, but supporting policies are needed so that citizen participation is more optimal.
Criado, J. I., Sandoval-Almazan, R., & Gil-Garcia, J. R. (2013)	Government Innovation through Social Media	Social media increases citizens' interaction with the government, but challenges related to the validity of information need to be considered.
Bannister, F., & Connolly, R. (2014)	ICT, Public Values, and Transformative Government: A Framework and Programme for Research	<i>E-Government</i> must prioritize the value of inclusivity and efficiency in public services.
Heeks, R. (2006)	Implementing and Managing eGovernment: An International Text	<i>The success of e-government in developing countries depends on the readiness of infrastructure and digital literacy.</i>
Grimmelikhuijsen, S. G., Welch, E. W., & Bretschneider, S. (2013)	Transparency and Performance Information: Toward a Research Agenda	<i>Transparency through digital technology can</i>

		<i>increase public trust in the government.</i>
Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006)	New Public Management Is Dead—Long Live Digital-Era Governance	<i>The digital era demands a change from the traditional administrative system to digital governance.</i>
Reddick, C. G. (2011)	Citizen Interaction with E-Government: From the Streets to Servers?	<i>Education and access to technology affect citizens' participation in e-government services.</i>
Norris, D. F. (2001)	E-Government and E-Democracy at the American Grassroots	<i>The digital divide is still the main barrier to citizen participation through e-government platforms.</i>

This table provides an overview of the various studies that have been conducted on the topic of e-government and citizen participation. The findings of these studies show that digital technologies have great potential to improve transparency and public accountability, but challenges such as the digital divide, inclusive platform design, and supportive policies still need to be considered to improve the effectiveness of citizen participation.

Based on the results of the literature review presented in the table above, it can be concluded that e-government has a significant role in increasing citizen participation and strengthening public accountability. Several studies have shown that the application of digital technology in government administration allows for more transparent access to information and more effective interaction between the government and the public (Bertot et al., 2010; Meijer, 2015). However, the implementation of e-government does not always run optimally because there are still structural obstacles such as less supportive regulations, digital divides, and resistance from society or the bureaucracy itself (Chadwick & May, 2003; Norris, 2001).

A study conducted by Chadwick & May (2003) and Criado et al. (2013) shows that digital interactions between citizens and governments are highly dependent on the design of the e-government platform used. If the platform is designed to be inclusive, accessible, and responsive to the needs of the community, then it is likely that citizen participation will increase. However, if the platform is too technical, not user-friendly, or not transparent in responding to public aspirations, then citizen participation will tend to be low. In addition, the government's openness in receiving feedback from the public is also an important factor in the effectiveness of the e-government system.

In addition to system design, the digital divide is still a major challenge in the implementation of e-government, especially in developing countries. As revealed by Norris (2001) and Heeks (2006), unequal access to information technology can limit public participation in government digital services. Factors such as education level, internet access, and digital literacy are obstacles that must be considered in the implementation of this technology-based policy. Therefore, policies that encourage inclusivity in access to technology are essential to ensure that all levels of society can participate in the digital government system.

Furthermore, research conducted by Bannister & Connolly (2014) and Dunleavy et al. (2006) highlighted the importance of public values in the implementation of e-government. A government that only focuses on digitalization without paying attention to the values of openness, fairness, and efficiency will actually create a new gap in citizen participation. Therefore, the approach in e-government should not only be oriented towards technology, but must also consider aspects of public policy that are oriented towards the welfare of the community.

Transparency and information disclosure are also one of the main factors that encourage the effectiveness of e-government in increasing public accountability. Meijer (2015) and Grimmelikhuisen et al. (2013) found that governments that provide data openly to the public through Open Government Data (OGD) initiatives tend to have a higher level of public trust. With access to transparent policy data and information, the public can be more active in supervising government performance and providing more constructive input on the policies implemented.

Based on the interpretation of the literature studies that have been studied, it can be concluded that e-government has great potential in increasing citizen participation and strengthening public accountability. However, its success is highly dependent on factors such as inclusive system design, digital infrastructure readiness, supportive regulations, and technological literacy among the community. Therefore, a holistic approach is needed in the implementation of e-government, where aspects of technology, policy, and community involvement must be considered simultaneously in order to create a more effective and transparent digital government.

## **Discussion**

The application of e-government in increasing citizen participation and public accountability has been a major concern in various studies. The findings from the literature studies that have been presented show that e-government can be an effective tool in promoting government transparency and strengthening public involvement in the public policy process (Bertot et al., 2010; Meijer, 2015). However, its effectiveness depends heavily on the readiness of digital infrastructure, inclusive platform design, and policies that support information disclosure. In today's global context, many countries have invested in digital technology to improve interaction between the government and society, but there are still various challenges in its implementation.

The phenomenon of the digital divide is one of the main obstacles in the implementation of e-government, especially in developing countries. Norris (2001) and Heeks (2006) found that unequal access to technology causes inequality in public participation in government digital services. This is relevant to the conditions in Indonesia, where there are still many areas that have limited internet access, especially in remote areas. According to the We Are Social (2023) report, although internet penetration in Indonesia has reached more than 77%, there are still around 23% of the population who do not have access to the internet, most of whom are in rural areas. This shows that digital infrastructure must be strengthened so that citizen participation through e-government can run inclusively.

In addition, the low level of digital literacy is also an inhibiting factor in increasing citizen participation through e-government. A study conducted by Reddick (2011) shows that

education and people's ability to use technology are determinants of the success of e-government. Many residents are not used to using the government's digital platform or do not understand the procedures for accessing public services online. In the Indonesian context, digital literacy improvement programs such as the National Movement for Digital Literacy initiated by the Ministry of Communication and Information Technology (Kominfo) are the right steps to overcome this problem. However, this effort still needs to be expanded in order to reach more people, especially vulnerable groups such as the elderly and people with low education levels.

Public trust in the government is also a key factor in the effectiveness of e-government. A study by Grimmelikhuijsen et al. (2013) shows that information transparency can increase public trust in the government, but if transparency is not accompanied by real accountability, then public trust will remain low. In some cases, people are still skeptical of the government's digital policies due to concerns about the security of personal data and a lack of responsiveness on the part of the government to complaints or inputs provided through digital platforms. This can be seen in the case of personal data leaks in Indonesia that occurred in several digital public services, such as alleged data leaks on the PeduliLindungi and eHAC applications. This incident shows that in addition to encouraging transparency, the government must also ensure that cybersecurity is a priority in the implementation of e-government.

From the perspective of democratic participation theory, e-government should be able to reinforce the concept of deliberative democracy, in which citizens have wider access to participate in the public policy process (Chadwick & May, 2003). However, in practice, not all citizens have the same opportunity to be involved in decision-making. As Criado et al. (2013) found, government digital platforms are often more one-way, where information is provided to the public but does not always open up an effective space for dialogue. This is still a challenge in many countries, including Indonesia, where public participation in e-government is more in the form of submitting complaints or aspirations than active involvement in the policy formulation process.

In terms of public policy, many countries have adopted Open Government Data (OGD) policies to encourage transparency and citizen participation (Meijer, 2015). Some countries such as Estonia and Singapore have successfully implemented digital governance models that allow people to access information in real-time and participate in various decision-making processes. However, in many developing countries, including Indonesia, the implementation of OGD still faces obstacles in terms of regulations, technological readiness, and bureaucratic culture that is not fully open to the concept of data openness.

Bannister & Connolly (2014) emphasized that the success of e-government depends not only on technology, but also on changes in work culture in government bureaucracy. Digital transformation in government requires a paradigm shift from conventional bureaucracy to digital governance that is more flexible and adaptive to the needs of the community (Dunleavy et al., 2006). In Indonesia, the digitization of public services still experiences resistance from some parties who are used to manual systems, especially at the local government level. Therefore, in addition to strengthening infrastructure and increasing digital literacy, the government also needs to carry out bureaucratic reforms so that the implementation of e-government can run more effectively.

In addition, the use of social media as part of e-government has become a trend in recent years. The study of Criado et al. (2013) shows that social media can be an effective tool in strengthening citizens' involvement with the government, especially in conveying aspirations and obtaining policy information quickly. This phenomenon is also seen in Indonesia, where many government institutions have started using platforms such as Twitter and Instagram to communicate with the public. However, the challenge that arises is how to ensure that this interaction on social media is not only a one-way communication tool, but can also contribute to a more inclusive decision-making process.

Based on the findings from the various literature reviewed, it can be concluded that although e-government has great potential in increasing transparency and citizen participation, there are still challenges that must be overcome. The digital divide, technological literacy, public trust, and bureaucratic resistance are the main factors that determine the effectiveness of the implementation of e-government. Therefore, the e-government implementation strategy must be designed holistically by considering aspects of technology, policies, and community readiness in order to realize a more open and accountable government.

As an author, I am of the view that the success of e-government in increasing citizen participation depends not only on the technology used, but also on the political will and commitment of the government in building a transparent and inclusive system. The government must ensure that all citizens have equal access to digital services and are provided with sufficient education to make optimal use of them. Thus, e-government is not only a symbol of bureaucratic modernization, but can also truly contribute to creating a more democratic and accountable government.

#### **4. CONCLUSION**

Based on the results of the literature review, it can be concluded that e-government has an important role in increasing citizen participation and strengthening public accountability through digital technology. The implementation of e-government allows for information disclosure, policy transparency, and increased interaction between the government and the community. However, its effectiveness depends heavily on several factors, such as the readiness of digital infrastructure, people's technological literacy, and inclusive and user-friendly digital platform design. In addition, although technology has provided ease of access to information and public services, there are still significant challenges that hinder the optimization of public participation, especially in developing countries.

One of the main challenges in the implementation of e-government is the digital divide, where there are still many groups of people who do not have access to information and communication technology. In addition, public trust in the government's digital system still needs to be strengthened through policies that ensure data security and responsive mechanisms to complaints and public input. The government needs to adopt a more participatory and collaborative approach with the community so that the e-government system not only becomes an administrative tool, but also encourages the active involvement of citizens in the public decision-making process. Therefore, more progressive policies are needed to encourage data disclosure, transparency, and increase effective public participation.

As a recommendation for further research, a more in-depth study of the effectiveness of e-government in the context of developing countries is needed, especially related to factors that affect the level of citizen participation in government digital services. Empirical research based on case studies in various regions can also be conducted to identify specific obstacles in the implementation of e-government and the most effective strategies to overcome them. In addition, further research can examine the impact of the use of social media and artificial intelligence technology in increasing interaction between the government and the community, so that it can provide new insights in the development of digital policies that are more inclusive and adaptive to the needs of society.

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## 6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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