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THE EFFECTIVENESS OF PUBLIC SERVICE DIGITALIZATION IN CORRUPTION PREVENTION FOR GOOD GOVERNANCE IN INDONESIA

Fery Muchtar Ashari[1)]*, Rob van Gestel[2)]

[1)]Faculty of Law, University of Airlangga, Indonesia
[2)]University of Law, Vietnam
*Corresponding Author, E-mail: feryma-mhs@fh.unair.ac.id

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ABSTRACT

Background. The digital transformation of public administration has become a central strategy for governments seeking to improve service delivery, enhance transparency, and strengthen accountability. In Indonesia, digitalization initiatives such as electronic government systems, online licensing platforms, digital procurement, electronic taxation, and integrated public service applications have been promoted as instruments for improving governance and reducing opportunities for corruption. While digital technologies have the potential to minimize direct interactions between citizens and public officials, thereby reducing discretionary decision-making and rent-seeking behavior, questions remain regarding their actual effectiveness in preventing corruption. This study aimed to analyze the effectiveness of public service digitalization as an anti-corruption mechanism from a legal and governance perspective.
Research Methods. This study uses a normative juridical approach to analyze Indonesian legislative frameworks pertaining to public administration, electronic government, anti-corruption laws, and digital public services. It also incorporates international and comparative viewpoints.
Findings. Digitalization contributes significantly to corruption prevention through enhanced transparency, traceability, accountability, and procedural standardization. However, challenges remain regarding institutional capacity, digital inequality, cybersecurity risks, regulatory fragmentation, and the persistence of corruption in digitally mediated environments. **Conclusion.** Digitalization should not be viewed as a purely technological solution but as part of a broader legal and institutional reform agenda aimed at strengthening integrity, public accountability, and good governance.

Keywords: E-Government, Digital Governance, Public Services, Corruption Prevention, Administrative Law, Indonesia.

BACKGROUND

Corruption remains one of the most significant obstacles to sustainable development, democratic governance, and public trust in government institutions. Corrupt practices not only result in financial losses for the state but also undermine the effectiveness of public policies, reduce service quality, weaken legal certainty, and erode citizens' confidence in public institutions. Consequently, governments around the world have increasingly sought innovative strategies to strengthen transparency and accountability while reducing opportunities for corrupt behavior [1].

One of the most prominent developments in contemporary public administration is the adoption of digital technologies to improve government services. The emergence of e-government and digital governance has fundamentally transformed the relationship between citizens and public institutions. Through online platforms, electronic transactions, automated processes, and integrated information systems, governments are increasingly capable of delivering services more efficiently and transparently than traditional bureaucratic models [2].

In Indonesia, public service digitalization has become a major component of administrative reform and anti-corruption strategies. Various initiatives, including electronic procurement systems, online licensing services, digital tax administration, electronic identity management, and integrated government service platforms, have been implemented to improve public service delivery and reduce opportunities for abuse of authority. These initiatives are based on the assumption that digital systems can reduce face-to-face interactions, minimize discretionary decision-making, and create auditable records that strengthen accountability [3].

The relationship between digitalization and corruption prevention is particularly important because corruption often thrives in environments characterized by information asymmetry, administrative complexity, excessive discretion, and limited oversight. Traditional bureaucratic procedures frequently create opportunities for bribery, extortion, favoritism, and abuse of power. By introducing automated and transparent systems, digital governance has the potential to reduce such opportunities and strengthen public oversight [4].

However, digitalization does not automatically eliminate corruption. While technology can increase transparency and efficiency, it may also create new forms of risk, including cyber fraud, manipulation of digital systems, algorithmic bias, unauthorized data access, and technologically sophisticated corruption schemes. Moreover, the effectiveness of digital governance depends not only on technological infrastructure but also on legal frameworks, institutional capacity, political commitment, and public participation [5].

Despite significant investments in digital government initiatives, relatively few studies have comprehensively examined the effectiveness of public service digitalization as a corruption prevention mechanism from a legal perspective. Most existing research focuses on technological implementation or administrative efficiency rather than legal accountability and governance implications. Therefore, this study seeks to evaluate the effectiveness of public service digitalization in preventing corruption within the Indonesian context and to identify legal reforms necessary for strengthening digital governance and public integrity.

The relationship between digital governance and corruption prevention has attracted increasing scholarly attention. Existing studies generally suggest that e-government initiatives can improve transparency, reduce administrative burdens, and strengthen accountability [2,6]. Several international studies have also demonstrated a negative correlation between digital government development and perceived corruption levels [7]. Nevertheless, important gaps remain within the current literature.

Prior research has mostly concentrated on 1)the use of technology in e-government systems, 2)results related to administrative efficiency, 3)public services are being transformed digitally, 4)indices of governance and corruption perception. There hasn't been much focus on the legal efficacy of digitalization in preventing corruption, the effects of digital governance on administrative law, digital public services' accountability systems, and the relationship between electronic government regulation and anti-corruption legislation. This study aimed to analyze the effectiveness of public service digitalization as an anti-corruption mechanism from a legal and governance perspective.

This research makes a contribution by: 1. Analyzing digitization of public services from a legal governance standpoint; 2. Combining digital governance theory, anti-corruption legislation, and administrative law; 3. Examining digital systems' built-in anti-corruption measures; 4. Putting forth a legal framework to improve digital public administration's integrity.

RESEARCH METHOD

This study employs a normative juridical research method utilizing statutory, conceptual, and comparative legal approaches. The statutory approach examines relevant legal instruments, including: 1) Law No. 30 of 2014 concerning Government Administration, 2) Law No. 19 of 2016 concerning Electronic Information and Transactions, 3) Law No. 25 of 2009 concerning Public Services, 4) Presidential Regulation No. 95 of 2018 concerning Electronic-Based Government Systems, 5) Anti-corruption legislation and public procurement regulations.

The conceptual approach applies theories of good governance, administrative accountability, transparency and public participation, digital governance, and corruption prevention. The comparative approach analyzes international experiences in digital governance and anti-corruption reforms, particularly in countries recognized for successful e-government implementation. Data were collected from peer-reviewed international journals, legal documents, government reports, and academic literature concerning digital governance and anti-corruption policies.

FINDINGS

Public Service Digitalization as a Governance Reform Strategy

Public service digitalization represents a significant transformation in the way governments interact with citizens and manage administrative processes. Traditionally, public services relied heavily on face-to-face interactions, paper-based procedures, and discretionary decision-making by public officials. Such systems often generated inefficiencies, administrative delays, and opportunities for corrupt practices. Digitalization seeks to address these challenges by replacing manual procedures with electronic systems that improve accessibility, efficiency, and transparency [2].

The concept of digital governance extends beyond the mere use of technology. It involves the restructuring of administrative processes to promote accountability, transparency, and citizen participation. Through online platforms, citizens can access government services, submit applications, monitor administrative processes, and receive decisions without direct interaction with public officials. This transformation reduces opportunities for informal transactions and strengthens procedural consistency [6].

In Indonesia, digitalization initiatives have expanded rapidly over the past decade. Electronic procurement systems, online business licensing platforms, digital tax administration, electronic court services, and integrated population administration systems have significantly altered public service delivery mechanisms. These reforms reflect broader efforts to modernize public administration and strengthen anti-corruption measures through technological innovation [3].

From a legal perspective, digital governance introduces new mechanisms for enforcing administrative accountability. Electronic systems generate digital records that document decisions, transactions, and procedural steps. Such records enhance transparency and facilitate auditing, thereby strengthening oversight mechanisms and reducing opportunities for discretionary abuse of authority.

Digitalization and the Reduction of Corruption Opportunities

One of the primary theoretical justifications for public service digitalization is its ability to reduce opportunities for corruption. Corruption frequently emerges in situations where public officials possess broad discretion, information is inaccessible, procedures are opaque, and oversight mechanisms are weak. Digital systems can address these vulnerabilities by increasing transparency and standardizing administrative processes [4].

Electronic service platforms reduce direct interactions between citizens and public officials, thereby minimizing opportunities for bribery and extortion. In conventional bureaucratic systems, individuals seeking licenses, permits, or administrative approvals may encounter demands for unofficial payments or preferential treatment. Digital procedures reduce the necessity of personal contact and limit opportunities for informal negotiations [7].

Furthermore, digitalization promotes procedural standardization. Automated systems apply predetermined rules and criteria consistently across applications, reducing the influence of personal discretion. Such standardization is particularly important in areas vulnerable to corruption, including procurement, taxation, licensing, and public resource allocation. By reducing discretionary authority, digital systems decrease opportunities for favoritism, nepotism, and abuse of power [1].

Another significant contribution of digital governance involves transparency. Electronic systems enable real-time monitoring of administrative processes, making information more accessible to citizens, oversight institutions, and civil society organizations. Transparency increases the likelihood that irregularities will be detected and reported, thereby creating deterrent effects against corrupt behavior [8].

In addition, digital platforms generate detailed audit trails documenting every administrative action. These records facilitate investigations, improve institutional accountability, and strengthen enforcement efforts. The availability of comprehensive digital evidence can significantly enhance the effectiveness of anti-corruption institutions and judicial processes.

DISCUSSIONS

Legal and Institutional Challenges in Digital Corruption Prevention

Although digitalization can reduce traditional forms of corruption, it does not eliminate corruption entirely. Instead, digital governance may alter the nature of corruption and create new forms of risk. Consequently, the effectiveness of digitalization depends on the robustness of legal and institutional safeguards [5].

One significant challenge concerns cybersecurity and data integrity. Digital government systems store large volumes of sensitive information related to public services, financial transactions, and administrative decisions. Unauthorized access, cyberattacks, and system manipulation may compromise the integrity of public administration and create opportunities for digital fraud. Therefore, legal frameworks governing cybersecurity and data protection play a critical role in maintaining public trust and ensuring the effectiveness of digital governance [9].

Institutional capacity also remains a major concern. Successful digitalization requires adequate technological infrastructure, skilled personnel, effective inter-agency coordination, and continuous system maintenance. Inadequate institutional capacity may result in system failures, service disruptions, and implementation inconsistencies that undermine anti-corruption objectives [10].

Another challenge involves regulatory fragmentation. Digital governance often intersects with multiple legal domains, including administrative law, information technology law, public procurement law, privacy law, and anti-corruption legislation. Inconsistent or overlapping regulations may create legal uncertainty and hinder effective implementation. Harmonized regulatory frameworks are therefore essential for ensuring coherent governance of digital public services.

Moreover, digital inequality presents an important concern. Citizens lacking internet access, digital literacy, or technological resources may experience difficulties accessing digital public services. Such inequalities may inadvertently exclude vulnerable populations and undermine the principle of equal access to public services. Therefore, digitalization strategies must incorporate inclusive approaches that ensure broad accessibility and participation.

Digital Governance, Transparency, and Public Accountability

Transparency constitutes one of the most important principles underlying both good governance and corruption prevention. Digital governance enhances transparency by increasing the availability of information and facilitating public monitoring of government activities [8]. Open government initiatives increasingly utilize digital platforms to publish budget data, procurement information, policy documents, and performance indicators. Such disclosures empower citizens, journalists, academics, and civil society organizations to scrutinize government actions and identify potential irregularities. Public access to information strengthens democratic accountability and reduces opportunities for hidden transactions [6].

Digital platforms also facilitate citizen participation in governance processes. Through online complaint mechanisms, feedback systems, and participatory platforms, citizens can report misconduct, monitor public services, and engage directly with government institutions.

These mechanisms contribute to social accountability and strengthen oversight beyond traditional institutional controls [2].

However, transparency alone is insufficient if not accompanied by effective accountability mechanisms. Information disclosure must be supported by legal frameworks that enable investigation, enforcement, and sanctioning of misconduct. Consequently, digital governance should be integrated with broader anti-corruption institutions and accountability systems capable of responding effectively to identified irregularities.

Strengthening the Legal Framework for Digital Anti-Corruption Governance

The findings indicate that public service digitalization can significantly contribute to corruption prevention by reducing discretionary authority, increasing transparency, strengthening accountability, and facilitating oversight. However, technological solutions alone cannot address the structural causes of corruption. Future legal reforms should focus on strengthening digital governance frameworks through clearer regulatory standards, enhanced cybersecurity protections, improved interoperability among government systems, and stronger accountability mechanisms. Legal provisions governing electronic public services should explicitly incorporate anti-corruption objectives and establish responsibilities for maintaining transparency and integrity.

Furthermore, regulatory frameworks should require regular audits of digital systems to identify vulnerabilities and ensure compliance with governance standards. Public institutions should also establish mechanisms for algorithmic accountability and oversight where automated decision-making systems are employed. Ultimately, the effectiveness of digitalization depends on its integration within broader governance reforms emphasizing rule of law, institutional integrity, and citizen participation. Technology can enhance transparency and accountability, but sustainable corruption prevention requires strong legal institutions capable of enforcing ethical and legal standards consistently.

This study has several limitations that should be considered when interpreting its findings. First, the research employs a normative juridical approach that primarily focuses on legal frameworks, regulations, policy documents, and scholarly literature. Consequently, the study does not directly measure the practical effectiveness of digital public service systems in reducing corruption through empirical field data. The findings therefore reflect legal and theoretical assessments rather than actual corruption outcomes observed in public institutions. Future studies may complement this approach with quantitative analyses of corruption cases, public service performance indicators, and user experiences.

Second, the study relies heavily on secondary data sources and existing literature. While these sources provide valuable insights into digital governance and anti-corruption mechanisms, they may not fully capture recent developments in Indonesia's rapidly evolving digital government ecosystem. Technological innovations, cybersecurity incidents, and administrative reforms continue to emerge, potentially influencing the effectiveness of digitalization in ways not fully reflected in the available literature.

Third, the research focuses primarily on the Indonesian legal context. Although comparative perspectives are incorporated, the findings may not be entirely generalizable to other jurisdictions with different governance structures, levels of digital maturity, legal traditions, or institutional capacities. The effectiveness of digital governance is highly dependent on contextual factors such as political commitment, administrative culture, regulatory quality, and public trust. Fourth, the study assumes that digitalization can contribute to corruption prevention but does not comprehensively examine emerging forms of electronic corruption (e-corruption)**,** including data manipulation, cyber fraud, algorithmic bias, unauthorized system access, and digital identity misuse. These new forms of corruption may alter the nature of governance risks and require different legal responses than traditional anti-corruption mechanisms.

Fifth, this study does not specifically evaluate variations in digital governance implementation across national, provincial, and local government institutions. In practice, significant disparities may exist regarding infrastructure quality, digital literacy, institutional readiness, and system integration, all of which can affect anti-corruption outcomes. Finally, the research does not empirically investigate citizen perceptions, public trust, or user satisfaction regarding digital public services. Since public participation and citizen engagement are important determinants of digital governance success, the absence of stakeholder perspectives may limit the comprehensiveness of the analysis.

Based on the findings and limitations of this study, several recommendations can be proposed for policymakers, public institutions, and future researchers. First, the Indonesian government should strengthen the legal framework governing digital public services by establishing more comprehensive regulations on digital accountability, cybersecurity, data protection, electronic records management, and algorithmic transparency. Stronger legal safeguards are essential to ensure that digital systems remain effective tools for corruption prevention while protecting citizens' rights.

Second, public institutions should prioritize the integration of digital governance systems across government agencies. Fragmented systems and weak inter-agency coordination may create administrative inefficiencies and new opportunities for corruption. Integrated digital platforms can improve transparency, facilitate monitoring, and strengthen institutional accountability. Third, policymakers should invest in digital literacy programs for both public officials and citizens. Digital transformation cannot effectively reduce corruption if users lack the skills necessary to access, understand, and utilize digital services. Improving digital literacy can enhance transparency, increase public participation, and reduce reliance on intermediaries who may exploit procedural complexities.

Fourth, anti-corruption strategies should move beyond technological solutions alone. Digitalization should be accompanied by broader institutional reforms, including stronger law enforcement, independent oversight mechanisms, transparent procurement systems, and effective whistleblower protection programs. Technology can reduce opportunities for corruption, but sustainable integrity requires strong governance institutions. Fifth, government agencies should conduct regular cybersecurity audits and integrity assessments of digital public service platforms. As digital systems become increasingly central to governance, protecting them from cyberattacks, data breaches, and system manipulation becomes essential for maintaining public trust and administrative reliability.

For future research, scholars are encouraged to adopt mixed-methods approaches combining legal analysis with empirical investigations. Future studies could examine the relationship between digital public service implementation and actual corruption indicators, public trust levels, service efficiency, and citizen satisfaction. Longitudinal studies may also provide a deeper understanding of how digital governance reforms influence corruption trends over time. Additionally, future research should explore emerging issues such as artificial intelligence in public administration, blockchain-based governance systems, algorithmic accountability, and electronic corruption (e-corruption), which are becoming increasingly relevant in the next generation of digital government reforms.

CONCLUSION

Public service digitalization represents an important instrument for strengthening transparency, accountability, and corruption prevention within contemporary governance systems. In Indonesia, digital government initiatives have contributed to reducing opportunities for bribery, increasing procedural standardization, and improving public access to information.

However, digitalization should not be viewed as a standalone solution to corruption. Its effectiveness depends on supportive legal frameworks, institutional capacity, cybersecurity protections, regulatory coherence, and public participation. While digital governance can significantly reduce traditional forms of corruption, it may also generate new risks that require appropriate legal responses.

This study concludes that strengthening digital governance requires comprehensive legal reform integrating administrative accountability, anti-corruption principles, and technological governance. Such an approach can support the development of transparent, accountable, and citizen-centered public administration while contributing to broader sustainable development objectives.

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