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Public Leadership and Accountability in the Digital Governance of Public Funds in Indonesia

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Abstract

This study examines the relationship between public leadership and accountability in the digital governance of public funds in Gowa Regency, South Sulawesi, Indonesia. Using a qualitative case study approach, the research investigates how local government leaders shape the adoption and operation of digital systems and how leadership behaviors mediate the translation of these systems into fiscal accountability outcomes. Data were collected through semi-structured interviews with key informants across different levels of government, complemented by document analysis and field observations. Data analysis followed the interactive model developed by Miles, Huberman, and Saldaña. The findings reveal that visionary, adaptive, and ethically committed leadership plays a decisive role in enabling digital infrastructure to function effectively as a mechanism for public accountability. These findings contribute to the achievement of Sustainable Development Goal (SDG) 16, particularly the promotion of effective, accountable, and transparent institutions through digital governance reforms. Based on these findings, the study proposes a Digital Public Leadership Model as a theoretical contribution to the literature on local government digital transformation in developing-country contexts.

1. Introduction

Over the past two decades, governments around the world have restructured public administration around digital systems. From the European Union's e-government initiatives to digital public service reforms in South Korea, Singapore, and Estonia, the trajectory of change has consistently involved replacing paper-based administrative procedures with integrated information platforms. As a result, citizen–government interactions have increasingly moved online, while automated systems have strengthened the management and monitoring of public financial flows (Dunleavy et al., 2006; Janowski, 2015; OECD, 2020). The World Bank characterizes this transformation as a fundamental shift in the way governments deliver public services and manage public resources (World Bank, 2016). Beyond administrative modernization, digital governance has become an important instrument for advancing the Sustainable Development Goals (SDGs), particularly SDG 16, which emphasizes the development of effective, accountable, and transparent institutions through improved public sector governance, financial accountability, and citizen participation (United Nations, 2015).

The academic literature on digital government has expanded alongside these developments. Scholars have examined the adoption of e-procurement systems, electronic budgeting, and open data platforms across a wide range of institutional and economic contexts (Bertot et al., 2010; Ndou, 2004; Wirtz et al., 2019). Collectively, these studies suggest that digital technologies can create conditions conducive to greater transparency, efficiency, and accountability in public administration.

Furthermore, public administration scholarship has devoted considerable attention to the challenges posed by disparities in technical capacity and institutional performance across government organizations (Heeks, 2006; Rotberg, 2014). From this perspective, digital governance refers to the use of information and communication technologies (ICTs) to transform public decision-making processes

and the management of public resources (Bannister & Connolly, 2011; Gil-García & Pardo, 2005). In the field of public financial management, digital governance encompasses the electronic recording, reporting, and auditing of public expenditures. These systems generate audit trails and documentation that facilitate both internal oversight and external scrutiny (Diamond & Khemani, 2005).

Nevertheless, transparency and accountability are analytically distinct concepts. Transparency refers to the visibility of government actions through the accessibility of information regarding decisions, processes, and outcomes (Florini, 1999). Accountability, by contrast, concerns the obligation of public officials to explain and justify their conduct and to bear the consequences of their actions (Bovens, 2007). Although digital systems can enhance transparency by making financial information more accessible and searchable, they do not automatically guarantee accountability. The existence of publicly available information does not necessarily ensure that officials will be held responsible for their decisions and actions. Ultimately, accountability depends on institutional arrangements and the quality of leadership that shape how information is used, monitored, and enforced.

Public leadership remains a relatively underexplored dimension within the digital governance literature. Most studies treat technology adoption primarily as an organizational challenge, focusing on technical factors such as information technology capacity, interoperability standards, and regulatory frameworks (Homburg, 2008; Luna-Reyes & Gil-Garcia, 2014). Rather than conceptualizing leadership as an independent mechanism shaping governance outcomes, these studies often regard it as a contextual variable. From the perspective of public administration theory, however, leadership occupies a central role. Leadership serves as the bridge between formal institutional arrangements and actual organizational behavior (Burns, 1978; Van Wart, 2013). In the context of digital governance, leaders establish norms governing the use of technology, allocate resources among competing priorities, and shape accountability mechanisms within public organizations (Hartley, 2005; Tummers & Kneis, 2016).

In Indonesia, the digital transformation of the public sector was formally institutionalized through Presidential Regulation No. 95 of 2018 concerning Electronic-Based Government Systems (Sistem Pemerintahan Berbasis Elektronik—SPBE). This initiative represents one of the most ambitious administrative reform programs in Southeast Asia. SPBE requires both central and local governments to integrate administrative processes through shared digital platforms. Within the SPBE framework, several systems are particularly relevant to fiscal governance. The Regional Government Information System (Sistem Informasi Pemerintahan Daerah—SIPD) supports local government planning, budgeting, and financial management processes. Meanwhile, the Village Financial System (Sistem Keuangan Desa—Siskeudes), developed by the Financial and Development Supervisory Agency (Badan Pengawasan Keuangan dan Pembangunan—BPKP), provides a dedicated financial management platform for village governments receiving Village Fund transfers under Law No. 6 of 2014 on Villages. Collectively, these systems constitute the digital infrastructure through which subnational governments are expected to record, report, and account for the use of public funds.

Indonesia’s institutional landscape is considerably more complex. The country’s decentralized governance system distributes fiscal and administrative authority across 514 regency and municipal governments and 75,265 villages throughout the archipelago (Kementerian Keuangan RI, 2026). This complexity has contributed to uneven levels of digital governance performance across subnational government units. Such variation is influenced by differences in local leadership capacity, investment in digital infrastructure, human resource competencies, and organizational culture.

Gowa Regency has positioned itself as a regional leader in the digital transformation of local government under the Electronic-Based Government System (SPBE) framework. Through sustained political commitment and administrative continuity, the regency has invested in the integration of SPBE components, implemented the Village Financial System (Siskeudes) across all village governments, and actively participated in inter-regional knowledge exchange initiatives on digital public administration. Nevertheless, despite encompassing 121 villages, Gowa continues to face significant challenges in the digital governance of village funds. The transition from manual to digital financial management systems has not progressed uniformly across villages, and variations in reporting quality and accountability outcomes remain evident. These outcomes do not always align with the technological ambitions promoted by local leaders. Consequently, Gowa Regency provides a valuable setting for examining the mechanisms through which public leadership shapes digital governance outcomes. The diversity of experiences across villages offers opportunities for comparative analysis and deeper understanding of the relationship between leadership, digital governance, and accountability.

The literature on digital governance in Indonesia has grown substantially in recent years. Existing studies have documented the challenges of implementing the Electronic-Based Government System (SPBE), examined the adoption of the Village Financial System (Siskeudes) in village governments, and investigated the effects of digital transparency on public service performance and citizen satisfaction (Fauziah & Biduri, 2021; Subhan & Sartika, 2025; Winarna et al., 2021). Parallel streams of research have explored public accountability through legislative oversight, civil society engagement, and audit mechanisms as key instruments for ensuring responsible public administration (Birdayanthi et al., 2025; Makanga et al., 2025; Parker & Favotto, 2026). Despite these contributions, the existing literature provides limited analysis of public leadership as an active and relational process that mediates the relationship between digital systems and accountability outcomes. Studies of digital governance tend to treat leaders primarily as facilitators of technology adoption rather than as agents who shape governance outcomes through their decisions, behaviors, and organizational influence. Similarly, research on public accountability has largely focused on formal mechanisms of oversight and control, while paying less attention to the informal leadership dynamics that determine whether such mechanisms function effectively in practice. To the best of the author's knowledge, no previous study has developed or examined a Digital Public Leadership Model as a theoretical construct that integrates leadership processes, digital systems, and accountability outcomes within a specific governance context, particularly in relation to village fund governance.

Accordingly, this study seeks to address this gap by examining three research questions. First, what role does public leadership play in the digital governance of village funds in Gowa Regency? Second, what factors determine accountability in the digital governance of public funds? Third, how can a Digital Public Leadership Model explain the realization of accountability in village fund management?

2. Conceptual Framework

2.1 Public Leadership

Public leadership has been widely examined through classical leadership theories, particularly the distinction between transactional and transformational leadership. Transactional leaders emphasize compliance and exchange-based relationships, whereas transformational leaders inspire commitment through shared values and organizational vision (Bass, 1985; Burns, 1978). In the public sector, transformational leadership plays a crucial role in strengthening accountability and sustaining organizational commitment to governance reforms. An integrated perspective further suggests that effective public leadership combines personal traits, leadership behaviors, situational adaptability, and transformational capacities to address evolving organizational challenges (Van Wart, 2013).

Leadership is also a key determinant of innovation and reform success in public organizations. Public leaders shape governance outcomes through managerial decisions that contribute to public value creation and organizational performance (Tummers & Kneis, 2016). Leadership is also a key determinant of innovation and reform success in public organizations. Public leaders shape governance outcomes through managerial decisions that contribute to public value creation and organizational performance (Fernandez & Pitts, 2011). while effective leadership in reform contexts requires both managerial competence and political acumen (Hartley, 2005). Accordingly, this study defines public leadership as the exercise of formal and informal authority by government officials to provide strategic direction, align organizational behavior, and maintain accountability in the management of public resources, including the implementation and oversight of digital governance systems.

2.2 Digital Governance

Digital governance refers to the use of digital technologies to support the structures, processes, and norms of public administration and decision-making (Bannister & Connolly, 2011). Unlike e-government, which primarily focuses on the digitalization of public services, digital governance encompasses broader institutional and organizational dimensions, including data management, interoperability, cybersecurity, and socio-technical arrangements that shape the use of digital systems. In public financial management, digital governance systems facilitate the recording of expenditures, monitoring of fund disbursement, preparation of financial reports, and support for audit processes, thereby enhancing transparency and accountability (Diamond & Khemani, 2005). However, the effectiveness of digital governance depends not only on technological infrastructure but also on organizational and human factors. Studies in developing countries show that although digital systems are often formally adopted, implementation challenges frequently emerge in the form of incomplete data, inconsistent system usage, and unreliable

reporting outcomes (Heeks, 2006; Welp et al., 2007). This condition is reflected in the concept of the design–reality gap, which describes the mismatch between system design assumptions and organizational realities. In this context, public leadership plays a crucial role in ensuring effective system utilization and in narrowing the gap between technological potential and actual governance outcomes at the local government level.

2.3 Public Accountability

Public accountability refers to the obligation of public officials to explain and justify their actions to relevant stakeholders and institutions that have the authority to evaluate and sanction their conduct (Bovens, 2007; Romzek & Dubnick, 1987). In the context of local government financial management, accountability encompasses the responsible collection, management, and expenditure of public funds in accordance with established regulations and intended policy objectives (Shah, 2007). Financial accountability therefore includes both procedural compliance and the effective use of public resources to achieve desired outcomes. At the village government level, accountability is assessed through formal audit mechanisms as well as the quality of daily financial management and oversight practices.

The relationship between digital governance and accountability is not automatic. While digital systems can enhance transparency by providing accessible financial information, accountability depends on how such information is utilized by oversight institutions, civil society, and citizens (Fox, 2007). This study conceptualizes public accountability as the outcome of interactions between leadership and digital governance processes. Public leadership influences accountability by shaping organizational values, guiding technology adoption, and ensuring effective implementation of digital governance systems. Accordingly, visionary, adaptive, and ethical leadership are expected to strengthen digital governance quality and, in turn, improve public accountability outcomes.

3. Method

3.1 Research Design

This study employs a qualitative case study design to examine the relationship between public leadership, digital governance, and accountability in Gowa Regency. A case study is appropriate for understanding how and why a phenomenon occurs within its real-world context, particularly when the boundaries between the phenomenon and its context are closely intertwined (Yin, 2018). This approach enables an in-depth exploration of governance processes and leadership practices across district and village government settings, allowing for comparative analysis of variations in digital governance implementation and accountability outcomes (Miles et al., 2014).

3.2 Research Site

The study was conducted in Gowa Regency, South Sulawesi Province, Indonesia. The regency was selected based on its active engagement in the implementation of the Electronic-Based Government System (SPBE) and the Village Financial System (Siskeudes), the substantial number of village

governments receiving Village Fund transfers, and the variation in digital governance adoption across local administrative units. Data collection was undertaken at the regency government offices in Sungguminasa as well as in selected districts and villages representing high, moderate, and low levels of digital governance adoption.

3.3 Research Informants

Informants were selected through purposive and snowball sampling techniques, following a maximum variation logic to capture perspectives from across different levels of the governmental hierarchy. The informant sample included the following categories:

- The Regent and/or Vice Regent of Gowa Regency
- The Regional Secretary
- Officials from the Community and Village Empowerment Agency
- District Heads (Camat) from selected districts
- Village Heads
- Community representatives with direct experience in village fund governance

Theoretical saturation guided decisions regarding the termination of informant recruitment within each category. All informants were assured confidentiality, and identifying information was anonymized in the reporting of findings.

3.4 Data Collection

Data were collected through three complementary methods: semi-structured interviews, document analysis, and field observation. Interviews served as the primary source of data and explored participants' experiences with digital governance, perceptions of leadership practices, accountability outcomes, and implementation challenges. All interviews were conducted in Bahasa Indonesia, audio-recorded with participants' consent, and transcribed verbatim.

Document analysis included local government financial reports (LKPD), BPKP supervisory reports, BPK audit findings, Siskeudes implementation records, SPBE assessments, and relevant regulations on digital financial management. These documents were used to triangulate interview findings and examine the development of digital governance within Gowa Regency. Field observations were conducted at regency and village government offices to assess the practical implementation of digital governance systems, financial reporting processes, and interactions among officials involved in financial management and oversight.

3.5 Data Analysis

Data analysis followed the interactive model developed by Miles, Huberman, and Saldaña (2014), consisting of data condensation, data display, and conclusion drawing and verification. Interview transcripts, field notes, and documents were coded and organized into conceptual categories derived

from both the data and the study's theoretical framework. Data were then presented through matrices and narrative summaries to identify patterns within and across cases. The credibility of findings was strengthened through triangulation of data sources and methods, member checking, and continuous verification during the analytical process. The trustworthiness of the study was assessed using the criteria of credibility, transferability, dependability, and confirmability proposed by Lincoln and Guba (1985).

4. Results and Discussion

4.1 The Role of Public Leadership in the Digital Governance of Public Funds

Across all categories of informants, the meaningful adoption and use of digital financial management systems were consistently associated with direction and support from senior leadership. In districts where the Village Financial System (Siskeudes) had been fully operationalized and financial reports were submitted on time, district heads and village heads reported receiving explicit instructions from the Regent's Office that treated digital compliance as a non-negotiable administrative requirement.

Senior leaders communicated a clear vision regarding the objectives of digital governance and translated that vision into practice through oversight structures that assigned tangible organizational significance to digital performance. As a result, compliance with digital systems was not perceived merely as a technical obligation but as an integral component of accountable public administration.

In locations characterized by lower levels of adoption, leadership signals were often ambiguous or entirely absent. Village heads in these areas described digital reporting as an additional administrative burden with little connection to broader organizational goals. Although they recognized that the system formally existed and that data entry was required, they reported receiving only limited supervisory follow-up and little communication from district or regency leaders regarding the purpose of digital governance systems or the consequences of non-compliance. Consequently, the implementation of digital financial management tended to be viewed as a procedural obligation rather than a governance mechanism designed to enhance accountability.

4.2 Adaptive Leadership and Implementation Challenges

The transition toward digital financial management exposed persistent capacity deficits at the village government level. Many villages financial operators (Siskeudes operators) possessed limited experience with digital systems, while internet connectivity in rural districts remained inconsistent and unreliable. Locations characterized by high levels of digital governance adoption were distinguished by leadership responses that treated these challenges as solvable problems rather than permanent constraints.

In high-adoption areas, district heads (Camat) described playing an active role in securing technical support for village operators, facilitating learning networks among village financial personnel, and

coordinating with regency authorities to address connectivity issues. This adaptive pattern involved identifying implementation barriers, mobilizing resources, and sustaining reform momentum while adjusting strategies to local conditions. Such findings are consistent with the adaptive leadership model proposed by Heifetz et al. (2009), which emphasizes the importance of mobilizing people and institutions to address complex organizational challenges under conditions of uncertainty.

By contrast, this pragmatic orientation toward implementation obstacles was largely absent in low-adoption areas. Connectivity problems and the frequent turnover of village financial operators were commonly cited as explanations for incomplete adoption rather than as challenges requiring active intervention. As a result, digital governance implementation often stagnated, reflecting a reactive rather than adaptive approach to organizational change. These findings suggest that leadership adaptability plays a critical role in determining whether implementation barriers become opportunities for institutional learning or persistent obstacles to digital transformation.

4.3 Ethical Leadership Norms and Accountability

Among the dimensions of public leadership identified in this study, ethical leadership appears to exert the strongest influence on accountability outcomes. Informants consistently emphasized that the extent to which senior leaders modeled and enforced norms of accurate and complete financial reporting significantly shaped the integrity of digital governance practices. In high-adoption areas, respondents described a culture of data accuracy in which the falsification or omission of financial records was widely understood to carry both regulatory consequences and reputational risks within the local governance community.

This culture of accountability was reinforced through observable leadership behaviors. Informants highlighted public statements by the Regent linking digital transparency to public trust, the active use of Siskeudes data by inspectorate officials during oversight reviews, and the consistent application of sanctions when irregularities in financial reporting were identified. These findings are consistent with the public management literature, which suggests that accountability mechanisms operate most effectively when leaders actively model ethical conduct and reinforce organizational norms through both formal and informal means (Treviño et al., 2006). Conversely, where accountability norms were weak, digital systems were often used mainly to fulfill administrative requirements rather than to ensure transparency. As a result, digital governance functioned more as a tool of procedural compliance than substantive accountability, highlighting the critical role of ethical leadership in shaping governance outcomes.

4.4 Implementation of Digital Governance in Public Fund Management

The implementation of digital financial management in Gowa Regency follows a multi-level governance architecture that reflects Indonesia's intergovernmental administrative structure. At the regency level, the Regional Government Information System (SIPD) integrates planning, budgeting, and financial reporting functions across government agencies. At the village level, the Village Financial System (Siskeudes)

serves as the primary platform for recording Village Fund expenditures and generating financial reports required under national regulations.

Implementation progress across village governments has been uneven. Of the 121 villages in the regency, data from the Community and Village Empowerment Agency indicate that the majority have completed basic Siskeudes training and are formally registered as system users. However, field observations and document analysis revealed substantial variation in the quality and completeness of actual system utilization. Several village governments continue to maintain parallel manual record-keeping systems and enter data into Siskeudes retrospectively, often only when reporting deadlines approach rather than at the time transactions occur. Such practices undermine the real-time monitoring function that Siskeudes was designed to support and reduce the reliability of financial information generated by the system.

The regency government has implemented several strategies to address these implementation gaps. These initiatives include the deployment of regency-level technical coordinators who provide direct assistance to village governments on Siskeudes-related issues, the incorporation of Siskeudes compliance indicators into district head performance evaluations, and the use of SIPD dashboards at the regency level to monitor village reporting status in near real time. Collectively, these measures reflect an organizational commitment to digital governance that extends beyond nominal technology adoption and encompasses the operational conditions necessary for producing reliable financial data and strengthening accountability mechanisms.

4.5 Accountability in the Digital Governance of Public Funds

The findings indicate that accountability in the digital governance of village funds in Gowa Regency is reflected in three interrelated dimensions: procedural compliance, data reliability, and substantive accountability. The implementation of Siskeudes has improved procedural compliance by facilitating the timely submission and standardization of financial reports across villages. Nevertheless, informants reported that compliance with reporting requirements does not always correspond to the accuracy and completeness of financial information. This finding supports previous studies showing that digital financial management systems can improve administrative transparency and reporting efficiency, while the quality of accountability outcomes remains dependent on organizational capacity, data governance practices, and institutional monitoring arrangements (Diamond & Khemani, 2005; Schuppan, 2009)

Data reliability and substantive accountability emerged as the most significant challenges. Although digital platforms increase the availability of financial information, discrepancies may still occur between reported expenditures and observable outcomes at the community level. This finding suggests that transparency generated through digital systems does not automatically translate into accountability. Rather, accountability is strengthened when digital information is accompanied by effective oversight, citizen engagement, and mechanisms that enable verification of reported activities. Similar conclusions have been reported in studies of digital governance and public sector accountability, which emphasize

that technological innovations are most effective when embedded within broader institutional arrangements that promote monitoring, responsiveness, and public scrutiny (Bertot et al., 2010; Meijer, 2015). These findings highlight that the accountability value of digital governance depends not only on technology itself but also on the governance ecosystem within which digital systems operate.

4.6 Characteristics of Digital Governance

Table 1 presents a comparison of digital governance characteristics in areas with different levels of Siskeudes adoption. The findings indicate that differences in leadership, organizational capacity, oversight mechanisms, and community participation contribute to variations in accountability outcomes in village fund management.

Table 1
Comparison of Regional Characteristics Based on Levels of Siskeudes Adoption in Gowa Regency

Dimension	High-Adoption Areas	Low-Adoption Areas
Visionary Leadership	Explicit directives from the Regent; digital compliance treated as a non-negotiable priority	Leadership signals are ambiguous or absent; digital systems are viewed as an administrative burden without a clear purpose
Adaptive Leadership	District Heads actively secure technical support, facilitate learning networks, and negotiate for connectivity assistance	Connectivity problems and operator turnover are treated as excuses for limited progress
Ethical Leadership	Strong culture of data accuracy; falsification of records is understood to carry regulatory and community-related consequences	Digital systems are used defensively, with data entered primarily to demonstrate compliance
Procedural Compliance	Financial reports are submitted on time and with higher levels of accuracy	Reports are submitted, but accuracy remains low and manual record-keeping persists
Data Reliability	Siskeudes entries accurately reflect financial transactions; active oversight supports data consistency	Data entries do not always correspond to actual expenditure patterns
Substantive Accountability	Village funds are more closely aligned with development objectives; community participation supports informal oversight	Formal records do not always reflect realities on the ground
Organizational Capacity	Active training programs, operator mentoring, and learning networks among village financial staff	Capacity limitations among operators are left unaddressed
Oversight Intensity	Regular monitoring visits; district and regency officials routinely review Siskeudes data	Limited follow-up and weak communication regarding non-compliance
Community Participation	Citizens participate in village planning processes and have access to simplified financial information	Public access to information and channels for citizen feedback remain underdeveloped

Based on Table 1, two contrasting patterns of digital governance emerged across villages with different levels of Siskeudes adoption. Villages with higher adoption levels demonstrated stronger accountability outcomes, reflected in more reliable financial reporting, effective oversight, and greater citizen involvement. Conversely, villages with lower adoption levels faced recurring challenges in data quality, compliance, and transparency. These findings suggest that the success of digital governance is shaped not only by technological availability but also by organizational and institutional conditions that support its implementation.

The findings reinforce the view that leadership plays a central role in shaping organizational capacity and governance performance (Andrews et al., 2011; Moore, 1995). Leaders who actively support digitalization are better positioned to strengthen compliance, enhance administrative capacity, and promote accountability-oriented practices. Consistent with digital governance research, the results further indicate that technology alone is insufficient to improve accountability outcomes; its effectiveness depends on leadership commitment, organizational readiness, and implementation capacity (Janssen & Estevez, 2013; Margetts & Dunleavy, 2013). Consequently, public leadership functions as a key enabling factor in translating digital governance reforms into meaningful accountability outcomes.

4.7 Determinants of Accountability

Cross-case analysis identified five key determinants of accountability in the digital governance of public funds: leadership commitment, organizational capacity, oversight intensity, regulatory clarity, and community participation. Among these factors, leadership commitment emerged as the most influential, as villages where leaders prioritized digital governance demonstrated higher-quality data, more comprehensive reporting, and stronger follow-up mechanisms. Organizational capacity also played a critical role, particularly the technical competence of village financial operators and the availability of training and mentoring support. In addition, regular supervision and clear regulatory guidance contributed to greater compliance and reduced ambiguity in the implementation of digital financial management systems. These findings support the view that leadership and organizational capacity are fundamental drivers of effective public sector performance and accountability (Andrews et al., 2011; Moore, 1995).

Community participation further strengthened accountability by enabling citizens to monitor village fund management and provide feedback on government performance. Villages with greater public access to financial information and more active citizen engagement exhibited stronger accountability practices than those with limited participation opportunities. Taken together, the findings indicate that accountability is not generated by technology alone but emerges from the interaction between institutional, organizational, and social factors. While digital platforms such as Siskeudes enhance transparency and information availability, their effectiveness depends on supportive governance conditions that encourage oversight, participation, and responsible leadership (Janssen & Estevez, 2013; Margetts & Dunleavy, 2013).

4.8 A Digital Public Leadership Model

Based on the findings presented above, this study proposes a Digital Public Leadership Model as a theoretical contribution to the literature on digital governance and accountability in local government. The model integrates the three dimensions of public leadership identified in the empirical findings—visionary leadership, adaptive leadership, and ethical leadership—with the five determinants of accountability identified through the cross-case analysis. Together, these elements explain the

mechanisms through which leadership behavior shapes the quality of digital governance and, ultimately, accountability outcomes.

Within this model, visionary leadership primarily influences system adoption and organizational commitment to digital governance as a substantive reform initiative rather than a mere administrative requirement. By articulating a clear vision and communicating the strategic value of digital governance, leaders create organizational incentives that encourage sustained engagement with digital systems. Adaptive leadership, in turn, shapes organizational capacity and oversight intensity by enabling leaders to identify implementation barriers, mobilize resources, and respond effectively to technical and institutional challenges. Rather than accepting constraints as fixed limitations, adaptive leaders actively facilitate problem-solving and organizational learning. Ethical leadership focuses on the normative environment within which digital systems operate. It influences the extent to which users enter accurate information, comply with reporting requirements, and respond honestly to accountability obligations. Through role modeling, enforcement, and the cultivation of accountability norms, ethical leaders strengthen the integrity of digital governance processes.

The model further suggests that the pathway from leadership to accountability is mediated by the quality of digital governance. Specifically, accountability outcomes depend on the reliability of data generated by digital systems, the completeness and accuracy of financial reporting, and the responsiveness of oversight processes to the information produced by those systems. Technology provides the infrastructure through which information can be generated, stored, and communicated; leadership determines whether that infrastructure is translated into meaningful accountability outcomes. Without effective public leadership, digital systems may create the appearance of accountability while failing to ensure its substantive realization. Conversely, when visionary, adaptive, and ethical leadership are present, digital governance systems become instruments through which transparency is transformed into genuine public accountability.

5. Conclusion

This study examined the relationship between public leadership and accountability in the digital governance of public funds in Gowa Regency, Indonesia. The findings show that visionary, adaptive, and ethical leadership plays a crucial role in strengthening accountability by improving data quality, reporting reliability, and financial oversight. The study also demonstrates that technology alone is insufficient to ensure accountability; the effectiveness of digital governance depends on leadership, organizational capacity, and oversight mechanisms. Based on these findings, a Digital Public Leadership Model is proposed to explain how leadership enhances accountability through digital governance in local government settings. Beyond its theoretical contribution, the study supports the achievement of SDG 16, particularly Target 16.6, by highlighting the importance of public leadership in developing effective, accountable, and transparent institutions at all levels.

Declarations

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No potential conflict of interest was reported by the author(s).

Author Contributions

All authors contributed to manuscript revision, read, and approved the submitted version.

Didin: Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Supervision, and Project administration.

Rifdan: Methodology, Formal analysis, Investigation, Data curation, Validation, and Writing – review & editing.

Andi Kasmawati: Investigation, Resources, Validation, Writing – review & editing

Haedar Akib: Conceptualization, Supervision, Data curation, Writing – review & editing

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Data availability

The dataset is available from the authors upon request.

Ethics approval

This study did not involve human or animal subjects. Thus, no ethical approval is required.

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