ISSN 2621- 458X

Digital Transformation of Village Government in Realizing Adaptive, Transparent, and Inclusive Governance: Strategies for Integrating Public Services, Community Participation, and Sustainable Development in Galung Village, Barru District, Barru Regency.

Resky Nur Fadillah
ITBA Al Gazali Barru
resky@algazali.ac.id
Muliana
ITBA Al Gazali Barru
muliana@algazali.ac.id

ABSTRACT

This study examines digital transformation in village governance to support adaptive, transparent, and inclusive public administration in Galung Village, Barru Regency, Indonesia. It focuses on the use of digital technology in administrative processes and public services, institutional readiness, community participation, and factors supporting or constraining implementation. The study employs a qualitative approach, with interview data analyzed thematically using NVivo. NVivo coding and word-cloud visualizations identify recurring concepts and relationships. The findings identify several interconnected dimensions of digital village governance, including the use of digital systems for administrative efficiency, access to public information, transparency, accountability, and communication between village government and residents. Institutional readiness emerges as an important concern, particularly leadership commitment, personnel skills, digital literacy, internet connectivity, and the availability of technological infrastructure. The analysis also highlights public participation through digital information channels and community feedback platforms as an important element of inclusive governance. At the same time, limited internet access, budget constraints, inadequate digital skills, and insufficient facilities may hinder implementation. These themes suggest that digital transformation involves more than adopting technological applications; it requires organizational adaptation, capable human resources, accessible infrastructure, and meaningful engagement with the community. The study concludes that strengthening digital governance in Galung Village requires an integrated approach connecting technological development, institutional capacity, leadership commitment, and citizen participation. It recommends continuous capacity-building, improved internet and technological facilities, accessible public information, and regular monitoring of administrative services and community feedback. Further empirical assessment is needed to establish actual measurable effects on service quality and citizen satisfaction.

Keywords: Digital Transformation; Village Governance; Public Service; Transparency and Accountability; Community Participation.

lisensi CC BY

A.INTRODUCTION

Digital transformation has become an important driver of institutional change in public administration and governance. The development of information and communication technologies has encouraged governments to move beyond conventional administrative procedures toward more integrated, responsive, and citizen-oriented public services. This transformation involves not merely adopting digital applications but also redesigning organizational processes, institutional relationships, and public service delivery mechanisms (Vial, 2019). In the public sector, digital transformation requires changes in organizational culture, administrative practices, and interactions between government institutions and citizens (Mergel et al., 2019). Consequently, digital governance has emerged as an essential approach to improving government effectiveness, transparency, accountability, and responsiveness. It also creates opportunities for strengthening public participation through accessible information and digital communication channels. At the local level, these developments are particularly relevant because local governments are directly responsible for addressing citizens' administrative and development needs. Therefore, digital transformation should be understood as a strategic instrument for creating adaptive, transparent, and inclusive governance rather than simply introducing technological tools.

Globally, digital government has increasingly been recognized as an important foundation for achieving sustainable development and improving the quality of public institutions. The United Nations E-Government Survey 2024 highlights substantial progress in digital government development while emphasizing persistent inequalities in digital access and public service capacity across countries and regions (United Nations, 2024). Similarly, the World Bank's GovTech framework identifies core government systems, online public service delivery, digital citizen engagement, and institutional enablers as important dimensions of public sector digital transformation (World Bank, 2025). These dimensions demonstrate that successful digital government requires more than technological infrastructure because institutional readiness and citizen engagement are equally important. The OECD (2020) also emphasizes six dimensions of digital government, including digital-by-design, data-driven public sectors, government as a platform, open-by-default, user-driven services, and proactiveness. Furthermore, Janowski (2015) explains that digital government evolves from basic digitization toward transformation, engagement, and contextualization. This perspective suggests that digital initiatives should

respond to the institutional and social characteristics of the communities they serve. Accordingly, village digital transformation needs to integrate technological innovation, administrative reform, public participation, and sustainable development objectives.

In Indonesia, digital transformation in government administration is supported by the national policy framework for Electronic-Based Government Systems (Sistem Pemerintahan Berbasis Elektronik/SPBE), established through Presidential Regulation No. 95 of 2018 (Republic of Indonesia, 2018). This regulation provides a foundation for developing integrated, effective, efficient, accountable, and sustainable electronic government services. At the village level, Law No. 6 of 2014 concerning Villages recognizes villages as entities with authority to manage governance, development, and community empowerment according to local needs (Republic of Indonesia, 2014). These institutional arrangements create opportunities for village governments to utilize digital technology in administrative services, public information management, and community development. Research by Sihombing and Lumbantobing (2024) demonstrates that digital technology adoption in Indonesian village administration involves both technological and sociocultural considerations. Hutauruk et al. (2021) similarly identify the potential of digital transformation to improve public services, transparency, and administrative efficiency, while highlighting infrastructure and digital literacy challenges. Within this broader national context, Galung Village, located in Barru District, Barru Regency, provides a relevant setting for examining how digital transformation can be integrated into village governance. Nevertheless, the specific institutional conditions, digital readiness, service practices, and community participation in Galung Village require direct empirical investigation rather than assumptions based on national policies or findings from other villages.

Despite the growing policy emphasis on digital government, translating digital transformation into effective village-level governance remains a complex process. The availability of digital applications does not automatically guarantee improvements in service quality, transparency, accountability, or community participation. Village governments may encounter challenges related to internet connectivity, technological infrastructure, human resource competencies, institutional coordination, and citizens' digital literacy. These challenges can create differences between the formal objectives of digital government policies and their actual implementation. Mursyidah et al. (2026), in their systematic literature review, identify

infrastructure limitations and digital literacy gaps as continuing challenges in village service digitalization. In addition, digital services may fail to achieve inclusive outcomes when citizens have unequal access to devices, connectivity, and the skills required to use digital platforms. From a governance perspective, the central issue is therefore how digital technology can be integrated into administrative processes while maintaining accessibility for all community groups. In the context of Galung Village, these issues raise important questions about institutional readiness, service integration, information transparency, and the extent to which digital initiatives can facilitate meaningful community participation.

Previous studies have examined digital transformation from organizational, institutional, and public service perspectives. Vial (2019) conceptualizes digital transformation as an organizational process in which digital technologies generate changes in structures, strategies, and value creation. Mergel et al. (2019) emphasize that public sector digital transformation requires comprehensive organizational and cultural changes rather than the introduction of isolated digital services. Janowski (2015) highlights the importance of contextualizing digital government according to institutional and societal conditions. At the village level, Hutauruk et al. (2021) examine e-government implementation in Sukamakmur Village and identify improvements in service delivery and citizen engagement alongside infrastructure and digital literacy constraints. Sihombing and Lumbantobing (2024) investigate digital technology adoption in Indonesian village administration and demonstrate the relevance of technological and sociocultural factors in implementation. More recently, Mursyidah et al. (2026) review village service digitalization and identify its potential to improve efficiency, transparency, and participation. These studies provide important theoretical and empirical foundations for understanding digital governance. However, they also indicate that village digital transformation needs to be examined through the interaction of institutional capacity, service delivery, community participation, and local development priorities.

Although previous studies have contributed to the understanding of digital government and village administration, several aspects require further investigation. Much of the existing literature focuses on technology adoption, administrative efficiency, digital applications, or the implementation of specific e-government platforms. Other studies emphasize organizational readiness, digital literacy, and infrastructure without fully examining how these dimensions

interact with inclusive governance and sustainable village development. The OECD (2020) framework provides a comprehensive perspective on digital government, while the United Nations (2024) emphasizes the importance of local digital services and digital inclusion. Nevertheless, these broader frameworks need to be examined in relation to the institutional and social realities of individual villages. This study addresses that gap by examining digital transformation as an integrated governance process involving public service delivery, transparency, community participation, and sustainable development. Its novelty lies in bringing these dimensions together within a single analytical framework and examining their interrelationships in the specific context of Galung Village. Rather than treating digitalization as a purely technological intervention, the study positions it as a strategy for strengthening adaptive institutional capacity, inclusive public services, and community-centered development. This local perspective is expected to contribute to a more context-sensitive understanding of digital village governance in Indonesia.

Based on the preceding discussion, this study aims to analyze the digital transformation of village government in realizing adaptive, transparent, and inclusive governance in Galung Village, Barru District, Barru Regency. Specifically, it examines how digital technologies are integrated into village administrative processes and public service delivery. It also investigates the extent to which digital transformation supports transparency, accountability, and accessibility of public information. Furthermore, the study explores the role of digital platforms and communication mechanisms in strengthening community participation in village governance and development planning. Another objective is to identify institutional, technological, human resource, and sociocultural factors that facilitate or constrain the implementation of digital transformation. The study also seeks to formulate strategies for integrating public services, community participation, and sustainable development through context-sensitive digital governance. By addressing these objectives, the research is expected to provide empirical insights into the opportunities and challenges of village-level digital transformation. Ultimately, the findings are intended to contribute to the development of adaptive, transparent, inclusive, and sustainable village governance practices.

The significance of this research is also connected to the broader sustainable development agenda, particularly the commitment to building effective, accountable, and inclusive institutions. The 2030 Agenda for Sustainable Development emphasizes that sustainable development requires

interconnected progress across economic, social, environmental, and institutional dimensions (United Nations, 2015). In this regard, digital transformation can support village development by improving administrative efficiency, facilitating access to public information, strengthening citizen engagement, and supporting more informed decision-making. However, its contribution to sustainable development depends on whether digital services are accessible, responsive, and relevant to the needs of different community groups. Digital governance should therefore be accompanied by institutional capacity development, inclusive participation mechanisms, and responsible data management. For Galung Village, this perspective provides an analytical foundation for understanding how digital transformation can become part of a broader strategy for improving village governance and development outcomes. The research is expected to offer practical recommendations for village institutions and contribute to academic discussions on digital governance at the grassroots level. Ultimately, the study emphasizes that sustainable digital transformation is not measured solely by the number of technologies adopted but by their ability to generate public value and improve the relationship between government and society.

B.RESEARCH METHODS

This study employs a qualitative descriptive research approach to examine the digital transformation of village government in realizing adaptive, transparent, and inclusive governance in Galung Village, Barru District, Barru Regency. A qualitative approach was selected because it enables an in-depth understanding of institutional practices, public service delivery, community participation, and the challenges associated with digital governance implementation. The research focuses on three main dimensions: the integration of digital technology into village public services, the use of digital platforms to strengthen transparency and accountability, and the contribution of digital initiatives to community participation and sustainable development. Galung Village was selected as the research location because it provides a relevant local context for exploring the relationship between digital transformation and village governance. The unit of analysis consists of village government institutions, public service processes, and community involvement in digital governance initiatives.

Data are collected through semi-structured interviews, direct observation, and documentation. Informants are selected purposively based on their knowledge, responsibilities, and involvement in village governance and digital public services. They may include the village head, village secretary, administrative staff, village officials responsible for public services and information management, community leaders, and residents who access village services. Interviews are conducted to explore institutional readiness, digital service practices, information transparency, community participation, and factors influencing digital transformation. Direct observation is used to examine administrative procedures, the availability and use of digital facilities, and interactions between village officials and residents. Meanwhile, documentation involves reviewing relevant village regulations, administrative records, development plans, public information materials, and digital service documents. Data triangulation is applied by comparing information obtained from interviews, observations, and documentary sources to strengthen the credibility of the findings.

Data analysis follows the interactive model developed by Miles, Huberman, and Saldaña (2014), which consists of three interconnected stages: data condensation, data display, and conclusion drawing or verification. Data condensation involves selecting, focusing, simplifying, and organizing information relevant to the research objectives. Data display is conducted by organizing the findings into descriptive narratives, thematic categories, and analytical matrices to identify relationships among digital transformation, public service integration, transparency, community participation, and sustainable development. Conclusion drawing and verification involve interpreting the findings, identifying recurring patterns, and examining the consistency of evidence obtained from different data sources. The validity of the data is strengthened through source triangulation and methodological triangulation. Through this analytical process, the study seeks to develop a comprehensive understanding of the opportunities, challenges, and strategies for strengthening digital village governance in Galung Village.

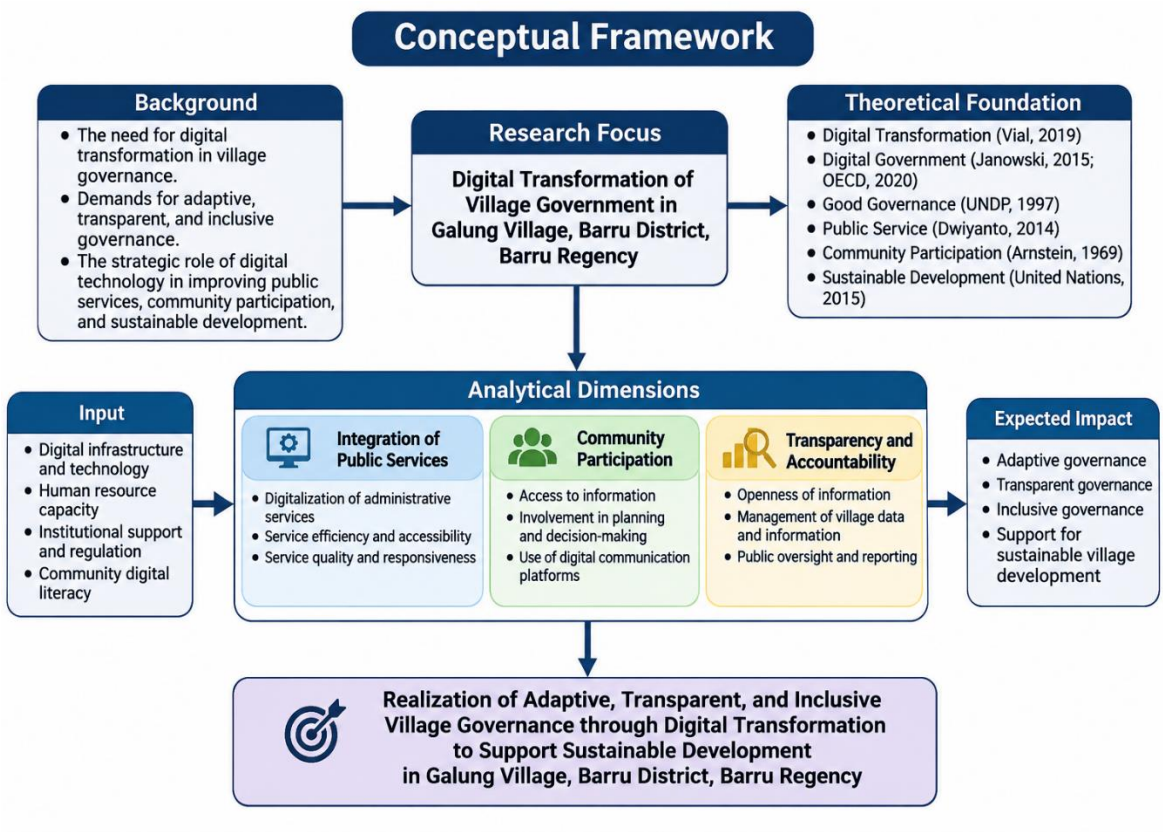


Figure 1 Conceptual Framework of Digital Transformation in Village Government for Achieving Adaptive, Transparent, and Inclusive Governance in Galung Village, Barru Regency.

Figure 1 illustrates the conceptual framework of this study, which explains how digital transformation can support the realization of adaptive, transparent, and inclusive village governance. The framework begins with the research background and theoretical foundations, followed by the identification of key inputs, including digital infrastructure and technology, human resource capacity, institutional support, and community digital literacy. These inputs influence three main analytical dimensions: the integration of public services through the digitalization of administrative processes, improved service efficiency, and accessibility; community participation through access to information, involvement in planning and decision-making, and digital communication platforms; and transparency and accountability through open information, village data management, and public oversight. The interaction among these dimensions is expected to strengthen institutional responsiveness, improve public service delivery, expand community involvement, and enhance government accountability. Ultimately, digital transformation is

expected to contribute to adaptive, transparent, and inclusive village governance while supporting sustainable development in Galung Village, Barru Regency.

C.RESEARCH RESULTS AND DISCUSSION

- Results

Galung Village, located in Barru District, Barru Regency, serves as the research setting for examining digital transformation in village government. The study focuses on how village institutions utilize digital technology to support administrative governance, improve public service delivery, strengthen transparency, and encourage community participation. The research involves several stakeholders who have different responsibilities and perspectives regarding village governance. These informants consist of Jumardin Jafar, S.Pd.I., M.H., as the Village Head; Muh. Wahyuddin Wahab, S.M., as the Village Secretary; and Nurhatimi Sirajuddin, S.A.P., as the Head of the Village Service Section. The study also involves Husnul Nisa as a village service user, Fauziah Rezki Adam, S.Pd., as the Hamlet Head, and Muh. Syukur as a member of the Village Consultative Body (BPD). Their involvement provides opportunities to examine digital governance from institutional, administrative, supervisory, and community perspectives. Accordingly, the research considers the relationship between village government capacity and the experiences of citizens in accessing public services.

The current condition of digital transformation in Galung Village is examined through the availability and utilization of information technology in village administration and public service delivery. This aspect explores the extent to which digital devices, internet connectivity, communication platforms, and administrative applications support the daily activities of village government. Information from Jumardin Jafar, S.Pd.I., M.H., and Muh. Wahyuddin Wahab, S.M., is important for understanding the village government's institutional perspective on digital technology adoption. Meanwhile, Nurhatimi Sirajuddin, S.A.P., provides an administrative service perspective concerning the use of technology in handling residents' service requests. The experiences of Husnul Nisa are relevant for identifying how residents access information and interact with digital or conventional service channels. Information from the Hamlet Head and BPD member can further illustrate the extent to which digital communication reaches the community.

These perspectives are used to identify the actual stage of digital transformation and distinguish between available technological facilities and their practical utilization.

The implementation of digital transformation is analyzed by examining how technology is incorporated into village administrative activities and public service procedures. The Village Head, Jumardin Jafar, S.Pd.I., M.H., provides information concerning leadership policies, institutional direction, and the village government's commitment to digital development. The Village Secretary, Muh. Wahyuddin Wahab, S.M., contributes information about administrative coordination, document management, and the integration of digital tools into government operations. Meanwhile, the Head of the Village Service Section, Nurhatimi Sirajuddin, S.A.P., provides a more specific perspective on the procedures for handling administrative requests and delivering services to residents. The investigation also considers whether digital technology is used in information dissemination, correspondence, population administration, and other village administrative processes. Through these aspects, the study examines the relationship between institutional policies and their implementation in daily administrative practices. The findings are expected to explain the extent to which digital transformation has become part of the village government's operational system.

Institutional capacity and human resource readiness are important elements in determining the effectiveness of digital transformation. This research examines the organizational structure, distribution of responsibilities, technological competencies of village officials, and institutional support for digital governance. Information from the Village Head is used to understand leadership support and institutional priorities in developing digital administration. The Village Secretary provides information about administrative capacity, coordination among officials, and the availability of human resources to manage digital activities. The Head of the Village Service Section contributes information about the technical competencies required to operate digital service procedures. In addition, the Hamlet Head provides a perspective on the capacity of village officials to communicate digital information at the community level. The study also examines the availability of supporting facilities, internet access, and budgetary resources. These aspects help identify whether the institutional environment is sufficiently prepared to support sustainable digital transformation.

The processes and mechanisms of digital public services are examined by analyzing communication, coordination, task distribution, and administrative procedures within the village government. The Village Secretary and Head of the Village Service Section are particularly relevant informants for understanding how residents' administrative requests are received, processed, and completed. The research investigates whether digital tools facilitate the submission of applications, document processing, information delivery, and communication between residents and village officials. The Village Head provides an institutional perspective on the coordination mechanisms and administrative standards applied in service delivery. The Hamlet Head contributes information about the communication process between the village government and residents in their respective areas. Meanwhile, the service user's perspective is important for understanding the accessibility and convenience of existing service procedures. By examining these interactions, the research identifies the extent to which digital technology contributes to more integrated, responsive, and efficient village public services.

Community participation is an essential dimension of inclusive digital governance because the success of digital transformation depends not only on government initiatives but also on citizens' involvement. The Village Head and Village Secretary provide information about opportunities for community involvement in village programs, development planning, and public information activities. The Hamlet Head, Fauziah Rezki Adam, S.Pd., offers a community-level perspective concerning the dissemination of information and the involvement of residents in village activities. Muh. Syukur, as a member of the Village Consultative Body (BPD), provides an oversight and representation perspective regarding community aspirations, institutional coordination, and public accountability. Furthermore, Husnul Nisa, as a service user, represents the perspective of residents who directly interact with village administrative services. The research examines how residents obtain information, communicate their needs, submit suggestions, and participate in village decision-making processes. These perspectives help explain the extent to which digital transformation can facilitate meaningful community participation and strengthen inclusive village governance.

The implementation of digital transformation may be influenced by various institutional, technological, and sociocultural factors. This research examines supporting factors such as leadership commitment, the availability of technological facilities, the competence of village

officials, institutional coordination, and community support. At the same time, potential barriers include limited internet connectivity, inadequate infrastructure, budget constraints, insufficient human resource competencies, and differences in digital literacy among residents. The Village Head and Village Secretary provide information about institutional and administrative challenges in implementing digital initiatives. The Head of the Village Service Section contributes information about technical difficulties encountered in delivering services. The Hamlet Head and BPD member provide perspectives on communication barriers and community access to digital information. Meanwhile, the service user's experience helps identify practical difficulties in accessing administrative services. Comparing these perspectives enables the study to distinguish between internal organizational constraints and external conditions affecting digital governance.

The impacts and achievements of digital transformation are examined through changes in administrative processes, public service accessibility, information dissemination, and interactions between village officials and residents. From the institutional perspective, the Village Head and Village Secretary provide information about perceived improvements in administrative management and organizational coordination. The Head of the Village Service Section contributes information regarding changes in service procedures, processing efficiency, and responsiveness to residents' requests. From the community perspective, Husnul Nisa provides relevant information about the accessibility, convenience, and quality of services experienced by residents. The Hamlet Head and BPD member contribute perspectives on the dissemination of information and the extent to which digital initiatives support community engagement. The research also considers whether digital transformation has contributed to greater transparency and accountability in village administration. These findings are analyzed to identify the actual benefits of digital technology while distinguishing documented achievements from expected outcomes.

The evaluation of digital transformation in Galung Village focuses on the relationship between institutional objectives, implementation practices, and the experiences of the community. This analysis compares information obtained from the Village Head, Village Secretary, Head of the Village Service Section, Hamlet Head, BPD member, and service user. Particular attention is given to the integration of public services, transparency and accountability, community participation, and institutional adaptability. The comparison of informants' perspectives is intended to identify similarities, differences, and possible gaps between government policies and their

implementation. For example, institutional assessments of service availability can be compared with residents' experiences when accessing administrative services. Similarly, the village government's information dissemination practices can be examined alongside the perspectives of the Hamlet Head and BPD member. This process provides an empirical basis for evaluating the strengths and weaknesses of digital governance implementation. The evaluation ultimately identifies the conditions that need to be strengthened to achieve more adaptive, transparent, and inclusive village governance.

Strategies for strengthening digital village governance are formulated by considering the institutional, technological, administrative, and community-related findings. At the institutional level, the Village Head and Village Secretary have strategic roles in establishing development priorities, strengthening administrative coordination, and supporting the allocation of resources for digital transformation. The Head of the Village Service Section is relevant to improving digital administrative procedures, service standards, and the capacity of service personnel. At the community level, the Hamlet Head can support the dissemination of digital information and encourage residents to participate in village programs. The BPD member can contribute to strengthening public oversight, representing community aspirations, and promoting accountability in village governance. Meanwhile, the experiences of service users can serve as an important reference for improving service accessibility and responsiveness. These roles need to be integrated into a coordinated strategy involving infrastructure development, human resource capacity building, digital service integration, information transparency, and community digital literacy. Through these measures, digital transformation can be developed as a governance strategy that supports sustainable and community-oriented village development.

- Data Analysis Using NVivo

Data analysis in this study was conducted using a qualitative approach supported by NVivo 12 Pro software. The utilization of NVivo was intended to assist the researcher in managing, organizing, coding, and systematically analyzing qualitative data concerning the digital transformation of village government in realizing adaptive, transparent, and inclusive governance in Galung Village, Barru District, Barru Regency. The data were obtained through in-depth interviews with six informants representing different institutional and community perspectives.

These informants consisted of Jumardin Jafar, S.Pd.I., M.H., Head of Galung Village; Muh. Wahyuddin Wahab, S.M., Village Secretary; Nurhatimi Sirajuddin, S.A.P., Head of the Village Service Section; Husnul Nisa, a village service user; Fauziah Rezki Adam, S.Pd., Hamlet Head; and Muh. Syukur, a member of the Village Consultative Body (BPD). In addition to interview data, the study incorporated field observations and documentary evidence, including village administrative records, public service documents, village development plans, institutional reports, digital information materials, and relevant policy documents. The application of NVivo enabled the researcher to systematically organize qualitative information, identify recurring patterns, and explore relationships among emerging concepts. Through this process, several analytical themes were identified, including digital transformation in village administration, institutional readiness and human resource capacity, integration of digital public services, transparency and accountability, community participation, supporting and inhibiting factors, adaptive governance, and sustainable village development.

Through NVivo, the analysis was organized using three coding stages: open coding, axial coding, and selective coding. During the open coding stage, the researcher identified initial concepts emerging from interview transcripts, field observations, and supporting documents. Several preliminary codes were developed, including digital technology utilization, internet infrastructure availability, digital administrative services, human resource competencies, institutional support, administrative efficiency, public information accessibility, transparency of village government, community involvement, digital communication, public accountability, and digital literacy. Additional codes included leadership commitment, interinstitutional coordination, community aspirations, service accessibility, technological constraints, budget availability, and public service responsiveness. These initial codes reflected the institutional, technological, administrative, and sociocultural dimensions of digital transformation in village governance. The coding process also enabled the researcher to capture differences in perspectives between village government officials, institutional representatives, and community members concerning the adoption of digital technology and its contribution to public service improvement. By organizing interview statements into relevant coding categories, the researcher could identify similarities and differences in the experiences, expectations, and assessments of the six informants regarding digital governance in Galung Village.

The second stage involved axial coding, in which related concepts were connected and grouped into broader thematic categories. The identified categories included institutional readiness for digital transformation, integration of digital public services, transparency and public accountability, community participation and digital inclusion, supporting and inhibiting factors, and the contribution of digital governance to sustainable development. This stage facilitated a deeper understanding of how institutional capacity, technological infrastructure, administrative procedures, and community engagement interact in the implementation of digital transformation. Finally, selective coding was employed to identify the central theme integrating all major categories, namely digital transformation as a strategic instrument for realizing adaptive, transparent, and inclusive village governance through the integration of public services, community participation, and sustainable development. The analytical framework was designed to examine the relationship between technological adoption, institutional capacity, service quality, information transparency, and community involvement in village governance. The findings were interpreted by comparing information obtained from the six informants and examining its consistency with field observations and documentary evidence. Therefore, the use of NVivo not only facilitated the systematic organization and interpretation of qualitative data but also supported analytical transparency, methodological rigor, and the development of an evidence-based understanding of digital transformation in Galung Village, Barru District, Barru Regency.

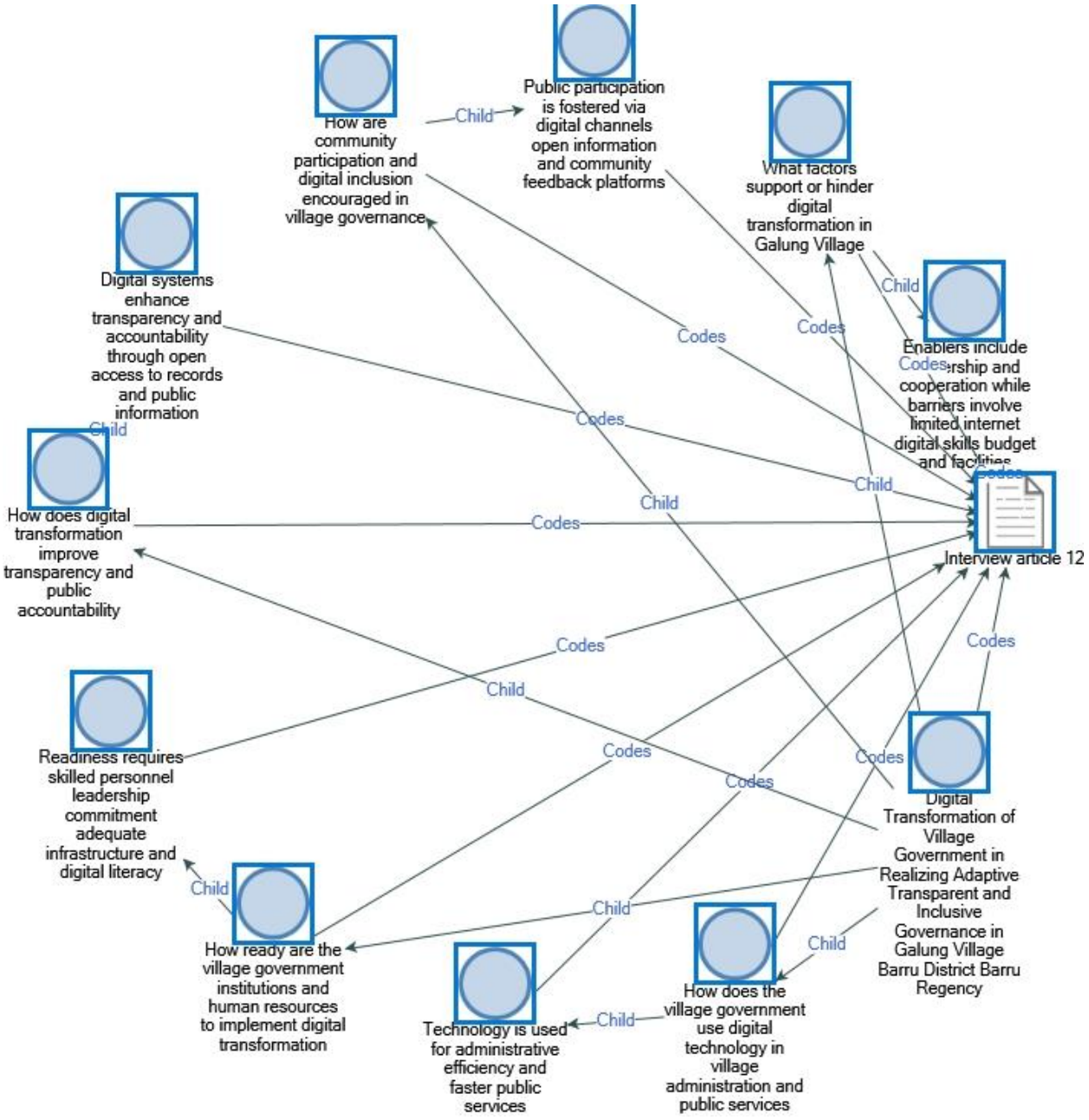


Figure 2 NVivo Coding Structure of Digital Transformation in Realizing Adaptive, Transparent, and Inclusive Village Governance in Galung Village, Barru Regency

Figure 2 illustrates the NVivo coding structure developed to analyze digital transformation in village governance in Galung Village, Barru Regency. The diagram presents several interconnected research dimensions, including the use of digital technology in village administration and public services, the contribution of digital systems to administrative efficiency,

and the improvement of transparency and accountability through open access to records and public information. It also highlights the readiness of village government institutions and human resources to implement digital transformation, particularly in terms of personnel skills, leadership commitment, technological infrastructure, and digital literacy. These dimensions are connected to the central interview document, indicating how qualitative interview information was organized into research questions and thematic categories.

Furthermore, the coding structure identifies public participation, digital inclusion, open information channels, and community feedback platforms as important elements of adaptive and inclusive village governance. The diagram also highlights supporting and inhibiting factors, including leadership and cooperation as enabling conditions, while limited internet connectivity, digital skills, budget availability, and technological facilities may constrain implementation. The connections labeled Child and Codes represent hierarchical relationships between research questions, thematic categories, and coded interview data. Overall, this visualization provides an analytical framework for understanding how digital technology, institutional readiness, community participation, and information accessibility interact in strengthening transparency, accountability, administrative efficiency, and inclusive public services in Galung Village.



Figure 3 NVivo Word Cloud of Interview Data on Digital Transformation in Realizing Adaptive, Transparent, and Inclusive Village Governance in Galung Village

Figure 3 presents a word cloud generated through NVivo analysis of interview data concerning digital transformation in village governance in Galung Village, Barru Regency. The visualization displays frequently occurring words and concepts, with larger words representing terms that appear more frequently in the analyzed data. The most prominent terms include digital, village, community, technology, support, administrative, services, and transformation. These terms reflect the central focus of the research, particularly the relationship between digital technology, institutional transformation, community involvement, and improvements in village administration. The prominence of the words digital and village indicates that technological development is a central theme in discussions about modernizing village governance and improving the delivery of public services.

Furthermore, the word cloud highlights several supporting themes, including transparency, accountability, leadership, commitment, coordination, infrastructure, internet, accessibility, and participation. These concepts suggest that successful digital transformation requires more than the availability of technological applications; it also depends on institutional readiness, adequate infrastructure, competent human resources, and leadership commitment. The appearance of terms related to community participation and information accessibility also emphasizes the importance of involving residents in digital governance through open information channels and feedback mechanisms. Overall, this visualization provides an overview of the dominant vocabulary emerging from the interview data and supports the thematic interpretation that digital transformation can strengthen administrative efficiency, transparency, accountability, and inclusive public services in Galung Village. However, word frequency alone does not establish the actual effectiveness or causal impact of digital transformation.

- Discussion

The findings demonstrate that digital transformation has an important role in strengthening village governance in Galung Village, Barru Regency, particularly in improving administrative efficiency, transparency, accountability, and public service delivery. The NVivo coding structure presented in Figure 2 identifies several interconnected dimensions, including the use of digital technology in village administration, institutional readiness, public participation, and access to government information. Meanwhile, Figure 3 highlights prominent concepts such as digital,

village, community, technology, services, transparency, and accountability. These themes indicate that digital transformation should not be understood merely as the introduction of technological applications but as a broader institutional process that changes how village governments manage information, deliver services, and interact with citizens. Digital systems can facilitate administrative documentation, accelerate information exchange, and provide opportunities for residents to access public records and government information. This interpretation is consistent with Utami et al. (2025), who identify village information systems as strategic instruments for improving administrative transparency, accountability, public service effectiveness, and community participation.

Therefore, digital transformation in Galung Village needs to be directed toward developing an integrated administrative system that supports transparent, responsive, and accessible village governance.An important aspect of this transformation is the relationship between institutional readiness and the capacity of village government personnel to utilize digital technology. The NVivo analysis identifies leadership commitment, skilled personnel, adequate infrastructure, internet connectivity, and digital literacy as important factors influencing implementation. These themes suggest that the effectiveness of digital governance depends not only on technological availability but also on the ability of village officials to operate digital systems and integrate them into routine administrative activities. Limited digital competencies, inadequate technological facilities, and unstable internet access may constrain the implementation of digital services and create disparities in access among community members. Sofyani et al. (2022) demonstrate that staff competence and organizational commitment are positively associated with accountability in Indonesian village governments.

This finding reinforces the importance of strengthening human resource capacity and institutional commitment as foundations for digital governance. Consequently, the Galung Village Government needs to prioritize continuous training, improve technological infrastructure, strengthen leadership support, and establish clear procedures for the consistent use of digital administrative systems.Community participation and digital inclusion also emerge as essential dimensions of adaptive and inclusive village governance. Figure 2 identifies digital communication channels, open information, and community feedback platforms as mechanisms for encouraging public participation in village administration. Similarly, the prominence of

community, participation, accessibility, and information in Figure 3 indicates that residents are important actors in the digital transformation process. Digital platforms can provide opportunities for communities to access government information, communicate their needs, submit suggestions, and participate in village development activities. However, digital participation will be meaningful only when citizens have adequate digital literacy, accessible communication channels, and opportunities to influence government decisions. Aminullah et al. (2026) demonstrate that digital integration and governance networks can strengthen participation quality, transparency, accountability, and community empowerment when digital systems are embedded in collaborative institutional arrangements.

Therefore, digital transformation in Galung Village should be accompanied by inclusive communication strategies that consider residents with limited internet access or digital skills. This approach can help ensure that technological development does not exclude particular community groups from accessing public services and participating in village governance.Overall, the findings suggest that realizing adaptive, transparent, and inclusive village governance requires the integration of technological innovation, institutional capacity, leadership commitment, and community participation. The NVivo analysis identifies several supporting factors, including institutional cooperation, digital infrastructure, skilled personnel, and open information systems, while limited internet connectivity, budget constraints, and inadequate digital literacy may hinder implementation. These findings indicate that digital transformation must be supported by sustainable institutional arrangements rather than depending solely on the availability of technological applications. The Galung Village Government should therefore develop an integrated digital governance strategy that connects administrative services, public information, community feedback, and participatory decision-making. Regular monitoring and evaluation are also necessary to assess service efficiency, information accessibility, community participation, and the accountability of administrative processes. Furthermore, cooperation with local government agencies and relevant technology stakeholders can strengthen infrastructure and technical assistance. Thus, digital transformation can become an instrument for strengthening adaptive village governance when technology is accompanied by institutional readiness, transparent administrative practices, and meaningful community involvement.

D. CONCLUSION & RECOMMENDATIONS

- Conclusion

This study concludes that digital transformation plays an important role in strengthening village governance in Galung Village, Barru Regency, particularly in improving administrative efficiency, transparency, accountability, and public service delivery. The NVivo analysis identifies several important dimensions, including the utilization of digital technology in village administration, institutional readiness, leadership commitment, human resource capacity, technological infrastructure, and public information accessibility. These findings indicate that digital systems can support more efficient administrative processes, facilitate access to government information, and strengthen transparency through improved documentation and information management. Therefore, digital transformation represents an important instrument for developing adaptive and responsive village governance.

Furthermore, the successful implementation of digital transformation depends on the integration of institutional capacity, community participation, technological infrastructure, and leadership commitment. Public participation through digital communication channels and community feedback platforms can strengthen inclusive decision-making and improve the relationship between village government and residents. However, limited internet connectivity, budget constraints, inadequate digital literacy, and insufficient technological facilities may hinder implementation. Consequently, strengthening digital governance requires continuous institutional improvement, effective coordination, and meaningful community engagement to ensure that technological innovation contributes to sustainable, transparent, and inclusive village governance.

- Recommendations

The Galung Village Government should strengthen digital governance by improving technological infrastructure, ensuring reliable internet connectivity, and providing continuous digital literacy training for village officials and community members. Leadership commitment and institutional coordination should be reinforced through clear procedures for managing digital administration, public information, and community feedback. Furthermore, village government should expand public participation through accessible digital communication platforms while

ensuring that residents with limited digital access can still obtain public services and government information. Regular monitoring and evaluation should also be conducted to assess administrative efficiency, transparency, accountability, and community participation. Future research should examine the measurable impact of digital transformation on public service quality and citizen satisfaction in Galung Village.

REFERENCES

Aminullah, A., Wusko, A. U., & Loreño, D. T. (2026). How digital governance networks shape community empowerment: A multilevel study of Indonesian villages. Jurnal Ilmu Sosial, 25(1), 37–58. https://doi.org/10.14710/jis.25.1.2026.37-58

Hutauruk, R. P., Juantara, B., & Fahmi, A. (2021). Digital transformation in rural governance: A case study of e-government implementation in Sukamakmur Village, Bogor. Jurnal Sosial Humaniora dan Sains, 6(2). https://doi.org/10.24967/jshs.v6i2.4297

Janowski, T. (2015). Digital government evolution: From transformation to contextualization. Government Information Quarterly, 32(3), 221–236. https://doi.org/10.1016/j.giq.2015.07.001

Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. Government Information Quarterly, 36(4), Article 101385. https://doi.org/10.1016/j.giq.2019.06.002

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). SAGE Publications.

Mursyidah, L., Sukmana, H., Rodiyah, I., Balahmar, A. R. U., & Rustianingsih, E. (2026). Digitalization of village services in the VUCA era: A systematic literature review. JKMP (Jurnal Kebijakan dan Manajemen Publik), 14(1). https://doi.org/10.21070/jkmp.v14i1.2084

Organisation for Economic Co-operation and Development. (2020). The OECD digital government policy framework: Six dimensions of a digital government. OECD Publishing. https://doi.org/10.1787/f64fed2a-en

Republic of Indonesia. (2014). Law No. 6 of 2014 concerning villages.

Republic of Indonesia. (2018). Presidential Regulation No. 95 of 2018 concerning electronic-based government systems.

Sihombing, T., & Lumbantobing, R. D. H. (2024). Digital technology adoption for village public administration—Evidence from Indonesia. Journal of Infrastructure, Policy and Development, 8(4), Article 3444. https://doi.org/10.24294/jipd.v8i4.3444

Sofyani, H., Pratolo, S., & Saleh, Z. (2022). Do accountability and transparency promote community trust? Evidence from village government in Indonesia. Journal of Accounting & Organizational Change, 18(3), 397–418. https://doi.org/10.1108/JAOC-06-2020-0070

United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. https://sdgs.un.org/2030agenda

United Nations. (2024). UN e-government survey 2024: Accelerating digital transformation for sustainable development with the addendum on artificial intelligence. United Nations Department of Economic and Social Affairs. https://desapublications.un.org/publications/un-e-government-survey-2024

Utami, M. C., Amelia, S., Fauzi, I. N., & Marwahdiyanti, F. (2025). Village information system analysis to improve transparency and public services: A systematic literature review approach. Information Technology Development and Management, 1(2).

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. The Journal of Strategic Information Systems, 28(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003

World Bank. (2025). GovTech maturity index 2025 update. https://www.worldbank.org/en/programs/govtech/gtmi-2025-update