DIGITAL TRANSFORMATION OF VILLAGE GOVERNANCE IN CIBUNAR VILLAGE, GARUT, INDONESIA

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Abstract

This study aims to examine the dynamics of digital transformation in village governance through a case study in Cibunar Village, Tarogong Kidul District. Although the central government has introduced various village digitalization programs through platforms such as the Village Information System (SID), implementation at the local level continues to face structural and cultural challenges. The main issues highlighted in this study include the low level of digital literacy among village officials, limited technological infrastructure, fragmentation of information systems across village government units, and resistance to change from manual administrative practices toward an integrated digital system.

Using a qualitative approach and descriptive analysis, data were collected through participatory observation, in-depth interviews, and document review to understand organizational readiness in adopting digital innovations and to formulate strategies appropriate to the local context. The findings indicate that the success of digital transformation in village governance is not solely determined by the availability of technology but also by the adaptive capacity of the organization, the synergy among local actors, and the presence of sustained policy support. This study proposes a model of village digital governance based on application systems that can enhance administrative efficiency, improve transparency of public services, and encourage citizen participation in village development. The implications of these findings provide practical contributions to the formulation of context-sensitive and sustainable policies for strengthening digital transformation in rural governance.

Keywords: digital transformation, village governance, digital governance, digital literacy, good governance

INTRODUCTION

Digital transformation has become an integral part of the global development agenda as reflected in the Sustainable Development Goals (SDGs). In governance, digitalization is not merely perceived as technological modernization but also as a fundamental strategy to improve the effectiveness of public services, expand access to information, strengthen transparency, and encourage citizen participation. This vision is consistent with the SDGs, particularly Goal 9 on industry, innovation, and infrastructure, as well as Goal 16 on peace, justice, and strong institutions.

In Indonesia, national policies such as the Smart Village program and the development of the Village Information System (SID) have accelerated digital transformation at the village level as part of a broader sustainable development strategy. Despite these initiatives, realities on the ground reveal that many villages continue to face structural and cultural obstacles. These include limited digital literacy among village officials, weak technological infrastructure, lack of system interoperability, and resistance to change from manual administration to integrated digital systems.

Cibunar Village in Tarogong Kidul District, Garut Regency, exemplifies these challenges. The village possesses promising tourism potential that could be developed as a foundation for the local economy through digital governance. Yet, this potential remains underutilized because administrative management, data recording, and public services are still largely manual. Such conditions result in delays in service delivery, limited transparency, and low efficiency. The digital divide also plays a decisive role, as shortcomings in hardware, unstable internet connectivity, and limited human resource capacity hinder the success of digitalization.

Theoretically, digital transformation in village governance can be analyzed through the Good Governance framework introduced by (UNDP, 1997) This framework emphasizes transparency, accountability, effectiveness, efficiency, participation, and openness as the foundation of public administration. The application of these principles to village digitalization has been confirmed in recent studies. (Hanisch et al., 2023) demonstrate that successful digitalization in the public sector requires institutional restructuring, adaptation of organizational culture, and contextually grounded technological integration.

Equally important is the acceptance of technology by village officials. The Technology Acceptance Model (TAM) developed by (Davis, 1987) explains that perceived usefulness and perceived ease of use directly affect the intention to adopt technology. This framework was later expanded into the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) by (Ursavaş, 2022) which incorporates social influence, facilitating conditions, hedonic motivation, and habit as determinants of adoption. (Ratmawati & Sugiarty, 2025) confirm that successful implementation of digital systems in the public sector is influenced by visionary leadership, structural support, and continuous organizational learning.

However, theories of technology adoption and good governance must be situated within the persistent reality of the digital divide in Indonesia. (Tresna et al., 2023) emphasize that disparities in access between urban and rural areas directly affect the effectiveness of government digitalization. Similarly, (Hutauruk et al., 2021), in their study of Sukamakmur Village in Bogor, found that limited internet infrastructure significantly hinders public services, even when adequate digital platforms are available .

The success of digital transformation also relies heavily on collaboration among stakeholders. The collaborative governance approach(Ansell & Gash, 2008) provides a framework for integrating the roles of village governments, communities, private actors, and external institutions in planning and implementing technology. This concept highlights that the success of public policy, including village digitalization, requires equitable interaction, mutual trust, and shared goals. In the Sundanese cultural context, such collaboration can be enriched by the theory of *Silih Simbeuh* proposed by (Mulyaningsih, 2019). This theory emphasizes reciprocal empowerment and mutual reinforcement among actors in the development process. *Silih Simbeuh* does not only mean giving and receiving support, but also embodies moral values to maintain balanced social relations in long-term cooperation. Applied to digital village governance, this principle implies that officials, citizens, technology partners, and external stakeholders must share collective responsibility to ensure the success of programs, pool resources, and guarantee that the benefits of digitalization are equitably distributed. (Giyanto & Murtinah, 2023), in their study of Karanganyar Village, confirmed that collaboration rooted in *Silih Simbeuh* reduces resistance to change and increases citizen participation in the development of digital village platforms.

In the context of tourism villages, digitalization holds significant potential to enhance competitiveness. (Hamidy et al., 2024) found that implementing application-based village tourism information systems not only accelerated administrative processes but also broadened public access to information and strengthened the image of destinations. Such success requires system designs that are responsive to local needs and supported by adequate technological maintenance. Similarly, (Priyowidodo et al., 2024) in their study of Surabaya, emphasized that effective e-government requires the integration of technology, work processes, and organizational culture to ensure the sustainability of digital public services.

From these studies, it can be concluded that the success of digital transformation in village governance requires a combination of technological capacity, human resource readiness, visionary leadership, policy support, collaboration grounded in local values, and active citizen participation. Obstacles such as low digital literacy, weak infrastructure, and organizational resistance must be addressed through participatory, context-sensitive, and sustainability-oriented strategies.

This research positions itself to fill a gap in the literature by focusing on the dynamics of digital transformation in Cibunar Village as a case study. The study explores organizational readiness, identifies inhibiting and enabling factors of digitalization, and formulates a model of application-based digital governance that enhances administrative efficiency, strengthens transparency, and fosters citizen participation in village development. The findings are expected to provide practical contributions for local governments and other villages seeking to adopt digital governance, while at the same time enriching theoretical perspectives on digital transformation in local governance.

The remainder of this paper outlines the research methodology, including the study design, data collection techniques, and analytical procedures. The empirical findings and discussion present the actual conditions, challenges, and opportunities of implementing digital governance in Cibunar Village. The final section concludes with key findings and offers policy recommendations to support sustainable digital transformation at the village level

METHODS

This study employed a qualitative approach with a case study design to gain an in-depth understanding of the digital transformation process in village governance. A qualitative approach was selected because it allows exploration of social realities and the dynamics of interactions among actors that cannot be adequately explained through quantitative data. The case study design enabled an intensive

examination of the phenomenon within a specific context, namely Cibunar Village in Tarogong Kidul District, Garut Regency, which is in the process of implementing a digital governance system despite limitations in infrastructure and the digital literacy of village officials. Cibunar was chosen as the research site because it represents the characteristics of a tourism-oriented village with strong creative economic potential, yet faces significant challenges in integrating technology into public services.

The study involved fifteen participants selected through purposive sampling, including the Village Head, Village Secretary, public service staff, leaders of tourism awareness groups, micro and small business owners, community figures, and local technology partners. The selection criteria focused on individuals directly engaged in digitalization efforts or those with significant experience in village governance. Data collection relied on three complementary techniques. First, in-depth interviews using a semi-structured guide were conducted to explore perceptions, experiences, barriers, and expectations of participants regarding digital transformation. Second, participatory observation was carried out to examine administrative practices, interactions in public service delivery, use of the Village Information System (SID), and coordination among actors. Third, document analysis was undertaken, covering village regulations, activity reports, administrative archives, and visual documentation of digitalization initiatives such as SID implementation. All interviews were recorded with participants' consent, transcribed verbatim, and analyzed, while direct observation was conducted over a three-week period with detailed notes on work processes and relevant interactions.

The research instruments were designed based on the Good Governance framework, which emphasizes transparency, accountability, effectiveness, efficiency, participation, and openness. These were further integrated with the Technology Acceptance Model (TAM), which highlights perceived usefulness and ease of use as determinants of technology adoption, and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), which incorporates social influence, facilitating conditions, hedonic motivation, and habit. The study also applied the Collaborative Governance framework, strengthened by Mulyaningsih's *Silih Simbeuh* theory. This local cultural theory conceptualizes collaboration as reciprocal relationships that mutually reinforce and empower actors, ensuring collective responsibility for sustaining and distributing the benefits of village digitalization programs. The integration of these theories into the research instruments allowed the study to capture both technical dimensions and local values influencing the success of digital governance.

Data were analyzed inductively using thematic analysis. The process began with comprehensive readings of interview transcripts and field notes, followed by initial coding of meaning units, grouping of codes into broader themes, and examination of interconnections among themes to build holistic understanding. Emerging themes were then interpreted through the theoretical frameworks to provide strong conceptual explanations. The validity of findings was maintained through triangulation of sources and methods, member checking with key informants, and systematic documentation of the analytic procedures as part of the audit trail.

Ethical considerations were addressed from the outset of the study. Participants were provided with clear information about the objectives and procedures, assured confidentiality of identity, and given the freedom to withdraw at any time without consequences. All data were used exclusively for academic purposes. Through this methodological design, the research aims to generate a comprehensive empirical account of digital transformation in Cibunar Village, identify both barriers and enabling factors, and formulate an application-based digital governance model that is efficient, transparent, participatory, and sustainable, aligned with local needs and grounded in well-established theoretical frameworks.

RESULT AND DISCUSSION

Overview of Field Conditions

Initial observations in Cibunar Village revealed that the process of digital transformation in village governance remains in a transitional stage, shifting from manual systems to technology-based practices. The village's organizational structure is relatively complete, and the village head has shown strong commitment to promoting the use of technology. However, its application has not yet been evenly distributed across all sectors. The Village Information System (SID) was installed several years ago but has not been fully optimized. As one staff member explained, *"The SID is there, but sometimes we use it, sometimes we don't. If the connection is slow, we just go back to manual."*

In terms of infrastructure, internet service is available in the village office but frequently experiences disruptions, especially during peak hours. This unstable connection delays data entry and updates. A public service officer noted, *"When many people are online, the internet becomes really slow. Entering data one by one actually takes longer."* Hardware such as computers and printers is available, but much of it is outdated and underperforming. Most village data is stored separately on individual staff computers, creating the risk of loss in the event of hardware failure.

At the policy level, there is not yet a formal village regulation specifically addressing digitalization. Most initiatives follow directives from the district government. As the village head stated, *"We actually*

want to issue a village regulation on digitalization, but it is still being drafted. For now, we just follow the district's guidelines."

From a human resources perspective, digital literacy varies significantly. Younger officials adapt more quickly, while senior staff often struggle. A senior staff member admitted, *"I'm not used to working with computers, especially the SID application. If something is needed, I usually ask the younger staff for help."* This situation has created dependence on a small number of technologically skilled individuals.

Community participation in digitalization remains limited, particularly among older residents who are not familiar with digital services. However, local tourism entrepreneurs have shown high interest. A homestay owner remarked, *"If there is an online system, I could post room availability and prices. Right now, I just use WhatsApp."* This reflects untapped opportunities for collaboration to expand the use of digital technology.

Key Findings

Through in-depth interviews, participatory observation, and document review, six major themes emerged that together portray the dynamics of digital transformation in Cibunar Village.

First, there are structural barriers, where the existing technological infrastructure is not yet fully adequate to support the sustainable implementation of digital systems. The Village Information System (SID) has indeed been installed for several years, but its use has not been optimal. The main obstacle lies in the limited integration between systems. Village officials revealed that the data already entered into SID is not automatically connected to the administrative systems at the sub-district or regency level. As a result, they have to perform double recording. A village operator explained, *"We already input residents' data into SID, but for the monthly reports to the sub-district, we still have to send Excel files manually. So it's double work, and it's tiring."* In addition, the available internet network often experiences disruptions, especially during peak hours. This condition causes delays in data updates and reduces staff motivation to rely on digital systems.

The digital literacy level of the apparatus varies, since younger generations tend to adapt more quickly, while long-serving officials tend to face difficulties. This becomes the next obstacle, namely human resource constraints. Training has been conducted by the local government, but it was short-term and unsustainable. Many staff members admitted to forgetting or becoming confused when the system was updated. An administrative staff member said, *"There was training, but only once or twice, then we were expected to use it right away. If there's a new menu, we get confused because no one teaches us again."* As a result, dependency emerged on a handful of staff who mastered the technology. This condition not only slows down the work process but also creates an unequal workload among officials.

The shift from manual to digital systems requires significant adaptation in work culture; however, in Cibunar Village resistance still exists. Some officials feel that manual methods are faster because they are already accustomed to them. A village official admitted, *"Manual is faster, just write it down in a book. With SID, you have to log in, input data, and sometimes it errors. So if a resident is in a hurry, I just write it manually first."* This mindset shows that technology is not yet fully seen as the main solution but rather as a complement to be used when conditions allow. This represents an organizational culture barrier that can hinder the acceleration of technology adoption because there is no strong drive to abandon old methods.

Despite facing various obstacles, Cibunar Village has important assets to drive digitalization or act as supporting factors for digitalization. One of them is the commitment of the village head, who openly expressed support for the use of technology in public services. The village head emphasized, *"We want public services to be faster and more transparent. Although still limited, this must keep moving forward."* In addition, tourism actors and MSMEs in the village have shown enthusiasm for using technology, especially social media, to promote products and services. A homestay owner said, *"If there is an online system, I can post information about vacant rooms and prices, so guests can book directly."* Other support comes from the existence of basic infrastructure such as internet networks and computers, although their condition still needs improvement.

Cibunar Village has also taken several initial steps to start digitalization as an early strategy. One of them is the appointment of a dedicated staff member as the village digitalization coordinator. This coordinator is responsible for managing the village's official social media accounts, uploading public information, and assisting other officials in using SID. He explained, *"I manage the village's official Facebook and Instagram accounts, updating information on services and village activities so residents can know quickly. If someone has difficulty using SID, usually I help."* The village government has also participated in short training facilitated by the regency government, although the frequency is still low. In addition, social media is used to announce service schedules, administrative requirements, and village activities, allowing residents to obtain information without having to come directly to the village office.

Furthermore, although the implementation of digital systems is still limited, the initial impact of digitalization is already visible through several benefits felt by the community. One of them is increased access to public information. A resident said, *"Now if we want to know the service schedule or village activities, we just check Facebook, so we don't need to come to the office first."* However, in terms of internal efficiency, the impact has not been significant because much of the data processing is still carried out manually. This is

evident from the tendency of officials to revert to manual methods when the system experiences disruptions or when quick results are needed.

These six themes form a picture that digital transformation in Cibunar Village is still in its early stages and full of challenges. Infrastructure barriers and limited human resource capacity are dominant factors hindering development. The organizational culture that has not fully embraced change adds complexity to the adaptation process. Nevertheless, the commitment of the village leadership, support from local business actors, and the existence of basic infrastructure serve as important assets that, if managed well, can accelerate the digitalization process.

In addition, local values such as *Silih Simbeuh* have the potential to become a strong social foundation for building collaboration between the village government, the community, and external partners. By applying the principle of mutual strengthening and empowerment, it is expected that every party can actively contribute to supporting the success of the digitalization program. The experience of business actors who have utilized social media for promotion can serve as a concrete example of how technology can provide direct benefits, thus encouraging other actors to follow the same path.

Analysis Based on Theoretical Framework

The digital transformation in village governance in Cibunar cannot be separated from the principles of good governance, which serve as the fundamental basis for assessing the quality of bureaucratic performance. Transparency, accountability, effectiveness, efficiency, and public participation are key indicators that determine whether digital innovations are truly capable of improving services. The findings of this study show improvements in transparency, for instance through the use of village social media to deliver information about services and community activities. A resident noted, "Now if we want to know the service schedule or village events, we just check Facebook, so there is no need to come to the office first," which indicates that digitalization provides more open access to information. However, effectiveness and efficiency remain far from expectations because limited infrastructure and staff skills mean that most tasks are still carried out manually. The village head even admitted that digitalization has not simplified bureaucracy, as the data entered into the village system must still be manually sent to the sub-district level. This finding is consistent with the view of (Almarabeh & Abuali, 2014), who emphasized that e-government can only deliver better governance when there is strong cross-institutional integration rather than simply the implementation of software at the lower levels.

In addition to governance, user acceptance of technology plays a central role in the success of digital transformation. The Technology Acceptance Model (TAM) helps explain the phenomena observed in the field, where perceived usefulness and perceived ease of use become decisive factors in technology adoption. Younger officials see the use of SID and village social media as a positive step to accelerate work. One young staff member remarked, "If all residents are used to checking announcements on the village Facebook, we do not need to print many papers," showing a high level of perceived usefulness. However, senior officials still view the digital system as a burden because it is difficult to understand. A senior staff member stated, "SID has so many menus, I often get confused about which one to click. If I choose the wrong one, the data might disappear." This statement reinforces the study by (Marangunić & Granić, 2015), which underlines that ease of use is a crucial factor directly influencing the intention to continue using technology in public organizations.

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) further extends the analysis by adding social factors and facilitating conditions, both of which are clearly visible in Cibunar Village. Social support emerges through younger staff who actively guide their colleagues not to be afraid of using digital systems. An operator explained, "If someone is confused, I usually show them directly on the computer so they feel confident to use it." This reflects a positive social influence. On the other hand, facilitating conditions remain a major obstacle because of unstable internet connections and outdated hardware. Although some officials have begun to routinely access the village's official accounts daily, this habit has not yet become widespread. This finding is in line with Venkatesh and colleagues, who argue that in developing countries, the availability of facilities and institutional support plays a more decisive role in sustaining technology use than individual motivation.

The concept of Collaborative Governance is also relevant for understanding how village government, business actors, and the community need to work together in the cross-sector collaboration required for digital transformation. In Cibunar Village, tourism entrepreneurs have already shown initiative by using social media to promote their products and services, and some have even offered further contributions. A homestay owner stated, "If the village helps create a website, we are ready to provide product data and photos so that promotion can reach a wider audience." However, this collaboration remains incidental and has not yet been institutionalized in formal forums that would enable routine information exchange. The Literature also emphasizes that effective collaboration must be built on consistent communication, clarity of roles, and fair distribution of benefits so that it does not stop at temporary initiatives.

This research also finds that local values make a significant contribution to strengthening the digital transformation process. The value of *Silih Simbeuh* meaning mutual support and empowerment,

has become a tangible social foundation in Cibunar Village. Daily practices show that more technologically skilled staff voluntarily help their colleagues who face difficulties. A community leader stressed, "Here, if someone understands, they must be willing to teach. Because if only one person can do it, when that person is absent, others will be confused." This phenomenon demonstrates that solidarity based on local culture can serve as a bridge to overcome limitations in formal capacity. (Iswanto & Kunci, 2025) have similarly argued that integrating local cultural values into village digitalization strategies can enhance technology acceptance and strengthen community participation.

By combining these five frameworks, the analysis reveals that the success of village digital transformation depends on the integration of good governance principles, user acceptance of technology, the availability of supporting facilities, sustainable collaboration mechanisms, and local cultural values that reinforce social solidarity. All of these aspects complement each other and cannot be separated. If one of the elements is neglected, digitalization will remain a formality without delivering tangible improvements in public service quality. Conversely, if all five elements are developed in balance, digital transformation can become a foundation for village governance that is more transparent, accountable, inclusive, and sustainable.

Discussion

Village officials are the main actors in the implementation of digitalization. They assess technology in terms of efficiency and risk. Younger officials experience direct benefits because they are accustomed to using digital devices. One junior staff member explained, "When creating an online certificate, I just click and print, there is no need to rewrite it several times." For this group, the digital system provides significant acceleration. In contrast, senior officials feel more comfortable with manual documents. "I trust it more when it is on paper. On the computer I'm afraid it will disappear. I also get confused when there are too many menus," said a 55-year-old staff member. This generational difference produces a dual working pattern in which some processes are digital while others remain manual. Field observations showed that senior staff desks are still filled with register books, while younger staff work mostly with laptops and mobile phones. This duality makes digitalization proceed half-heartedly and potentially undermines accountability consistency.

Tourism business actors have a different perspective. They view village digitalization as a promotional tool that can expand markets. A homestay owner said, "If there is an official website, guests from outside can directly see the accommodations in the village. So far, promotion has only been through acquaintances or personal social media." Local MSME owners expressed similar expectations, believing that a digital platform would help their products gain broader recognition. However, this potential is constrained by the absence of a formal forum. Interactions between entrepreneurs and the village government generally occur only during major events such as festivals or official visits. Afterward, relations loosen again. Observations revealed that regular village meetings rarely involve business actors, preventing the integration of tourism and MSME information into the village's digital system.

Ordinary villagers see digitalization as a way to access information more easily. A housewife mentioned, "Now when there is aid, it is immediately announced in the WhatsApp group, so no one is late to find out anymore." Yet the benefits are not felt evenly. An elderly farmer said, "I don't use an Android phone. So if there is news, I still have to wait for my child to tell me." Field observations also showed that elderly or poor residents remain left behind because they lack smartphones or internet access. This creates a new risk of social exclusion, where some residents become closer to the village government through digital channels, while others remain dependent on traditional methods.

Facilitative conditions are a shared obstacle experienced by all actors. Officials often complain about slow computers and unstable internet connections. "The computer often hangs, and the internet is unreliable. If residents are in a hurry, I have to write it manually," admitted a service officer. Business owners also said they cannot maximize digital promotion because the village does not yet have an official platform. A local craftsman noted, "We want our products to be displayed online, but the village doesn't have a website yet." Residents too feel the impact when information is delayed in reaching WhatsApp groups due to poor signal. These three perspectives indicate that without adequate infrastructure, the benefits of digitalization are difficult to realize fully.

Local cultural values such as *Silih Simbeuh* emerge as social glue that helps overcome some of these barriers. Younger officials feel responsible for assisting their senior colleagues. One junior staff member explained, "If someone is confused, I show them directly on the computer so they get used to it. If we don't teach them, they will become even more afraid." Senior officials acknowledge the importance of this help: "If the younger ones patiently teach me, I feel more confident. Alone, I am often afraid of clicking the wrong thing." The same happens among villagers. Residents without mobile phones are often helped by neighbors. "If I don't have data, usually the neighbor informs me about the announcement," said a housewife. This culture of mutual support demonstrates that local values function as social capital supporting technological adaptation.

However, such solidarity cannot serve as the sole solution. Senior officials will never become independent if they continue to depend on junior staff. Poor villagers will remain vulnerable if they only

rely on neighbors for information. Business actors cannot grow if promotion depends only on personal social media. Therefore, social solidarity must be complemented by structural support in the form of continuous training, adequate infrastructure, and formal collaboration forums. Only with this combination can digitalization function as an inclusive and sustainable governance instrument.

The comparison of the three actors shows village digital transformation as an arena of negotiated interests. Officials pursue administrative efficiency, business actors seek promotional opportunities, and residents demand information access. All these interests are interconnected, but without integration, they proceed separately. This underlines that village digitalization is not merely about devices and applications, but about how actors with different backgrounds interact, negotiate, and adapt.

The findings also reveal that village digital transformation cannot be reduced to a purely technical process of application adoption. It is a social arena involving multi-actor interactions with differing interests, capacities, and limitations. Village officials display polarization between adaptive younger generations and more resistant seniors, tourism entrepreneurs wait for a formal forum to integrate their promotion into the village's digital platform, while residents experience both benefits and new gaps due to unequal technology access. These groups have complementary interests, but remain fragmented because of limited coordination and structural support.

Facilitative conditions such as weak digital infrastructure add to the complexity. Technical obstacles not only slow down services but also weaken trust in the digital system. This is where the local cultural value *Silih Simbeuh* serves as a social buffer. Solidarity in the form of teaching one another, sharing information, and helping neighbors shows that digitalization in the village is not only about machines but also about people adapting to a new rhythm. Yet this solidarity cannot replace broader structural needs, because relying solely on informal mechanisms risks widening gaps in the long term.

Qualitative data analysis shows that the main themes emerging from the field can be mapped into five major categories: transparency and accountability, technology acceptance, local economic collaboration, facilitative conditions, and social and cultural capital. Thematic coding was carried out by tracing recurring informant quotes that represent core issues experienced by various actors. For instance, under transparency and accountability, residents emphasized better information access, while officials acknowledged continued double recording due to network problems. Technology acceptance was strongly influenced by generational factors, as younger officials were more adaptive whereas senior officials remained hesitant. In the category of local economic collaboration, entrepreneurs highlighted the absence of an official village platform as the main barrier to promoting tourism and MSME products. Facilitative conditions underscored infrastructure problems felt by almost all actors. Finally, social and cultural capital, represented by *Silih Simbeuh*, served as a strength that reduced gaps through solidarity and mutual support.

To illustrate how these themes emerged from interview excerpts, the following section presents the Thematic Coding Matrix.

Table 1. the Thematic Coding Matrix

Theme	Subtheme	Key Informant Quotation	Code
Transparency and Accountability	Faster access to information	"In the past, we often missed information. Now it is easier, just open the phone."	W1
	Double recording (manual and digital)	"Sometimes it is already written in the book, but not yet entered into the system because the network is down."	A1
	Resistance due to technical errors	"I feel more comfortable writing manually, the computer often crashes."	A2
Technology Acceptance	Youth adaptation	"It is faster to update on the village's Facebook, just type it once."	A3
	Senior staff concerns	"I trust it more when it is on paper. On the computer, I am afraid it will be lost."	A4
	Intergenerational dependence	"If the young staff are away, I just write by hand, and later they will input it."	A5
Local Economic Collaboration	Tourism promotion potential	"If there were an official website, guests could directly check the accommodation."	U1
	Expectation of MSME integration	"We want our products displayed online, but the village does not yet have an official platform."	U2
Facilitating Conditions	Weak infrastructure	"The computer often hangs, the internet is unstable. If residents are in a hurry, I am forced to write manually."	A1 (additional)
	Limited official platform	"We want our products displayed online, but the village does not yet have an official platform."	U2 (additional)
Social and Cultural Capital	Solidarity among village staff	"If someone is confused, I directly show them on the computer."	A6

| | Community solidarity | "If I do not have internet credit, usually the neighbor informs me about announcements." | W2 |

Source: Researcher interview, 2025

This Thematic Coding Matrix shows that each theme is interconnected and forms a holistic picture of the dynamics of digital transformation in Cibunar Village. These themes are then further summarized in the following interview table, which highlights both differences and interconnections among actors' perspectives

Table 2. Summary Interview Table

Code	Profile	Key Statement	Theme/Issue
W1	Female, 37 years old, resident	"In the past, we often missed information. Now it is easier, just open the phone."	Information transparency
A1	Village staff, 32 years old	"Sometimes it is already written in the book, but not yet entered into the system because the network is down."	Weakness in digital accountability
A2	Senior village staff, 55 years old	"I feel more comfortable writing manually, the computer often crashes."	Resistance to technology use
A3	Young staff, system operator	"It is faster to update on the village's Facebook, just type it once."	Youth technology acceptance
A4	Senior staff, 55 years old	"I trust it more when it is on paper. On the computer, I am afraid it will be lost."	Distrust of digital systems
A5	Hamlet head, 45 years old	"If the young staff are away, I just write by hand, and later they will input it."	Intergenerational dependence
U1	Homestay owner, 40 years old	"If there were an official website, guests could directly check the accommodation."	Tourism collaboration potential
U2	MSME entrepreneur, 35 years old	"We want our products displayed online, but the village does not yet have an official platform."	Limited digital platform
A6	Young staff, 29 years old	"If someone is confused, I directly show them on the computer."	Silih Simbeuh solidarity (among staff)
W2	Housewife, 38 years old	"If I do not have internet credit, usually the neighbor informs me about announcements."	Community solidarity

Source: Researcher interview, 2025

Thus, this affirms that the success of village digital transformation requires the integration of three main aspects. First, technical support in the form of adequate devices and a stable internet network so that digitalization truly provides added value. Second, strengthening human resource capacity through tiered training that bridges generational and experiential differences. Third, institutional reinforcement through formal collaborative forums that can integrate the roles of village officials, business actors, and the community. Only with the combination of these three factors, supported by local cultural values as social capital, can digitalization evolve into an instrument of village governance that is more transparent, accountable, participatory, and sustainable.

CONCLUSION

This study found that digitalization in Cibunar Village remains in the early transitional stage with uneven outcomes. Technology-based innovations have brought positive changes to information openness, particularly in the dissemination of public announcements, which are now more accessible through digital channels. Nevertheless, administrative clarity and consistency have not yet been fully achieved. The practice of dual recording, namely the simultaneous use of online systems alongside manual archives, continues to pose a serious challenge. This situation is further complicated by the unequal capacity of village officials. Younger staff members adapt quickly, while senior officials tend to maintain traditional practices, resulting in hybrid forms of service delivery.

Generational factors have proven to be highly influential in determining technology acceptance. Younger officials place greater trust in digital systems, whereas senior staff still regard physical documents as the primary source of legitimacy. This divergence creates patterns of dependency that risk slowing down the consolidation of technology-based administration. Meanwhile, local entrepreneurs view digitalization as a strategic opportunity to expand the reach of tourism promotion and local small businesses. However, this potential has yet to materialize due to the absence of formal platforms that can sustainably align the interests of village government, community members, and the local economy. The situation is further exacerbated by limited supporting infrastructure, such as unstable internet connectivity and insufficient equipment.

Amid these limitations, the local cultural value of *Silih Simbeuh* functions as a form of social cohesion that supports adaptation. The solidarity of younger staff in assisting their senior colleagues, along with the community's habit of sharing information, demonstrates that local wisdom can help reduce the impact of the digital divide. Yet cultural strength alone is insufficient to address structural weaknesses.

Without reliable infrastructure and consistent policies, digitalization will continue to progress only partially.

Based on these findings, several recommendations can be made. At the policy level, the village government must prioritize the provision of reliable digital infrastructure, including stable internet connectivity and adequate hardware to support public services. Capacity-building programs for village officials should also be tailored to different needs: practical technical training for senior staff, and managerial as well as digital governance training for younger staff. In addition, a formal collaborative forum should be established to integrate the roles of the village government, business actors, and the community, thereby enabling tourism promotion and local product marketing to operate cohesively within a digital ecosystem. The principle of *Silih Simbeuh* should serve as a foundation in formulating village digital policies to ensure that transformation proceeds inclusively and in accordance with community values.

From an academic perspective, this study contributes to the literature on collaborative governance by incorporating local wisdom as a significant variable in explaining the dynamics of technology-based collaboration at the village level. This contribution opens opportunities for further research on digital inclusion, particularly regarding vulnerable groups such as the elderly or low-income households who risk being left behind in digitalization processes. Comparative studies across regions may also provide deeper insights into the factors that distinguish the success and obstacles of village digital transformation. Furthermore, a mixed-methods approach could be considered to generate more comprehensive analyses by combining qualitative and quantitative data.

In conclusion, this study affirms that the success of village digitalization is not solely determined by the availability of technology, but also by the readiness of human resources, institutional support, and the strength of local cultural values. The proposed policy recommendations and academic contributions are expected to encourage the development of more inclusive, participatory, and sustainable digital governance in villages.

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