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Public Satisfaction with the Use of DIGIDES in Pao-Pao Village Administrative Services Using a Systematic Literature Review (SLR)

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ABSTRACT

This study aims to analyze the level of public satisfaction with the use of the Digital Village Application (DIGIDES) in Pao-Pao Village, Tanete Rilau District, Barru Regency, and to evaluate the effectiveness of its implementation in improving the quality of public administration services. Using a descriptive qualitative approach, this study explored the public's experiences, perceptions, and satisfaction levels through in-depth interviews, direct observation of the application's use, and documentation related to service delivery before and after digitization. Informants were selected using a purposive sampling technique, while data validity was strengthened through source and method triangulation. Data analysis was conducted using the Miles and Huberman model, which includes data reduction, data presentation, and conclusion drawing. A Systematic Literature Review (SLR) approach was also used to strengthen the theoretical foundation related to village digitalization, the quality of electronic services, and public satisfaction. The results show that DIGIDES provides significant changes in improving service speed, administrative process efficiency, and ease of access for the public. The majority of respondents stated that services have become faster and more convenient because they can be submitted online via smartphone without having to visit the village office. Village officials also experienced increased work effectiveness through reduced manual record-keeping and ease of digital archiving. However, several obstacles remain, such as internet network constraints, lack of digital literacy among older adults, inadequate devices, and limited socialization of the application's use. Public satisfaction is generally high, although digital capacity building and technical improvements to the application are still needed to achieve more inclusive village digital services. Overall, this study confirms that the implementation of DIGIDES has positively contributed to the modernization of village public services. However, its sustainability and optimization require infrastructure support, increased digital literacy, and policies to strengthen data security.

Keywords: DIGIDES, public services, community, digitalization, e-government.

A. INTRODUCTION

The development of information and communication technology (ICT) has brought significant changes to governance and public service delivery, including at the village government level in Indonesia. The digitalization of public services is seen as a crucial strategy for improving the effectiveness, efficiency, transparency, and accessibility of services for the public, particularly in areas with diverse geographic and infrastructure conditions. The implementation of e-government in villages overcomes traditional bureaucratic barriers, which have been considered slow and unresponsive to citizen needs. Accordingly, "digital village" programs have begun to be widely implemented in Indonesia as an effort to accelerate administrative processes and expand the reach of ICT-based public services (Setyawan et al., 2023). This transformation demonstrates that villages can become spaces for inclusive public service innovation when supported by adequate policies and technological capacity.

In the context of digital village implementation, several studies have demonstrated a positive impact on public services. A study of the implementation of digitalization in Socorejo Village, Tuban, showed that digital systems make services faster, more orderly, and more transparent, thereby increasing public satisfaction with administrative services (Rizal & Setyowati, 2023). Another study in Sukajaya Village, Sumedang, found that the use of ICT in public services played a significant role in improving service quality, increasing village government responsiveness, and minimizing previously time-consuming manual bureaucratic practices (Hidayat & Nurlaeli, 2022). These research findings demonstrate that the digitalization of public services is not only a global trend but has become a fundamental requirement in modern village governance, especially as communities become increasingly accustomed to technology-based information access.

Furthermore, the literature on e-government also explains that the success of digitalization is heavily influenced by institutional readiness and human resources. One of the biggest challenges in villages is the limited capacity of officials to operate digital systems and the low digital literacy of some residents, particularly the elderly and those unfamiliar with technological devices (Puja et al., 2022). Infrastructure, such as a stable internet network and electricity supply, are also critical

success factors, particularly in remote villages. This is reinforced by research findings showing that e-government implementation will be effective only if communities have adequate access to information technology (Nugraha & Asrori, 2023). Therefore, digitalization requires a comprehensive strategy that focuses not only on application procurement but also on improving literacy, training officials, and providing supporting facilities.

Public satisfaction is a crucial indicator in assessing the success of digital services in villages. Research on application-based population administration services found that the quality of electronic services, speed of access, and ease of use of the application significantly determine public satisfaction with the system (Sari & Pratama, 2023). This demonstrates that digitalization of services must adhere to user-friendliness principles to ensure their full utilization by residents. Furthermore, public perception of the benefits of digital services is influenced by the extent to which the application meets their needs for fast, accurate, and transparent services. If the application is not easy to understand or presents various obstacles, public satisfaction will be low even after the technology has been introduced.

Within the theoretical framework of smart villages, digitalization is viewed not only as a modernization of services but also as an instrument for community empowerment. Smart villages emphasize the need for synergy between ICT, apparatus capacity, community participation, and public service innovation so that villages can improve the welfare of their residents (Rahmawati & Fikri, 2022). This approach demonstrates that the success of a digital village depends not only on the application, but also on social adaptation and community readiness to embrace change. This concept is relevant as many villages in Indonesia begin transforming toward digital governance as part of their long-term development strategy. Thus, digital villages not only simplify administrative processes but also contribute to sustainable development at the local level.

However, various gaps remain between the ideal concept of a digital village and its implementation on the ground. One such gap is the lack of public awareness about the use of applications and the benefits of digital services, resulting in many residents not utilizing the available systems. Research Previous research revealed that even though digital applications have been implemented, community adoption remains low due to a lack of mentoring and education from village governments (Gunawan & Arifin, 2023). Furthermore, low digital literacy in some

villages creates resistance to the transition from manual to digital systems. These issues highlight implementation gaps that need to be addressed with a participatory approach and more inclusive policies.

Field conditions also indicate that external factors such as internet network disruptions, power outages, and limited electronic devices can hinder the success of digitalization. Several studies have noted that villages located far from cities face technical challenges such as unstable internet signals, which hinder online-based administrative processes (Mulyana & Darmadi, 2023). This demonstrates the need for thorough digital infrastructure preparation before implementing digital public services. Equitable infrastructure development is a prerequisite for ensuring equal access to services for all residents. Therefore, village digitalization cannot stand alone without the support of physical and technological development. In this context, the implementation of DIGIDES in Pao Pao Village, Tanete Rilau District, Barru Regency, serves as an important case study for understanding how digitalization is implemented at the village level. DIGIDES is designed to simplify the processing of correspondence, population administration services, and various other types of documents online via Android devices. Qualitative data from officials and residents indicates that before DIGIDES was implemented, administrative services took a long time and relied on manual processes. After using DIGIDES, services became faster, more accurate, and no longer required residents to visit the village office in person. These findings demonstrate that digitalization has had a real impact on improving the effectiveness of public services.

However, DIGIDES implementation also faces several obstacles. Residents less familiar with technology still require assistance operating the application, especially the elderly. Technical barriers such as network disruptions, power outages, and limited device access are also daily challenges that the village government must address. This aligns with literature stating that the success of village digitalization depends on digital literacy, infrastructure availability, and sustainable outreach (Sukmawati & Yusuf, 2022). Thus, although DIGIDES offers significant benefits, its implementation requires a stronger supporting strategy to ensure digital services are accessible to all levels of society.

Based on these research findings and field conditions, an analysis of public satisfaction with DIGIDES is crucial. This evaluation is necessary so that village governments can identify the

supporting and inhibiting factors that influence the application's success and formulate policy recommendations to improve the quality of digital services. A comprehensive analysis is expected to provide a picture of DIGIDES' effectiveness in improving public services and serve as a foundation for the future development of a more inclusive, adaptive, and sustainable digital village system. Therefore, this research is expected to contribute to strengthening e-government implementation at the village level and supporting the acceleration of the digital transformation of local government in Indonesia

B. RESEARCH METHODS

This study used a qualitative approach with descriptive research to in-depth describe the level of community satisfaction in utilizing the Digital Village Application (DIGIDES) in Pao-Pao Village, Tanete Rilau District, Barru Regency. This approach was chosen because it provides a contextual understanding of user experiences, community perceptions, and factors influencing satisfaction with digital administrative services. Data collection was conducted through in-depth interviews with village officials and community members as application users, observations of the DIGIDES usage process, and documentation related to the implementation of administrative services before and after the application's implementation. Research informants were selected using a purposive sampling technique to ensure that respondents had direct experience using DIGIDES.

Data validity was tested through source and method triangulation techniques, namely comparing information from various informants and combining interview, observation, and documentation techniques. Data analysis was conducted using the Miles and Huberman model, which includes data reduction, data presentation, and conclusion drawing. Through this stage, all collected information was systematically processed to obtain a comprehensive picture of the application's service quality, technical challenges, and the level of public satisfaction with DIGIDES. The analysis process was conducted iteratively to ensure that the findings accurately reflect field conditions without ignoring the social and technological dynamics that occur during application use.

- Literature Review: Systematic Literature Review (SLR)

The literature review in this study was compiled using a Systematic Literature Review (SLR) approach to ensure the identification, selection, and synthesis of relevant research was systematic and methodologically sound. A literature search was conducted through Scopus, Google Scholar, DOAJ, and Sinta databases using keywords such as digital village, smart village, e-government, digital public service, user satisfaction, and online administrative services. Selected articles were published between 2018 and 2024 to ensure that the literature reflects the current state of village digitalization implementation. Inclusion criteria included research discussing the digitalization of village services, public satisfaction with digital services, and the success factors and barriers to e-government implementation in rural areas. A total of 38 articles met the criteria and were further analyzed for thematic synthesis purposes. The SLR results show that the digitalization of public services in villages has a significant impact on service effectiveness. Several studies confirm that village service applications improve service speed, transparency, data accuracy, and public satisfaction (Wahyudi & Yuliana, 2021; Pratama & Santoso, 2022). Other literature emphasizes the importance of digital literacy as a key factor in the successful implementation of digital village applications (Sari & Firdaus, 2020). Furthermore, various international studies on smart villages also indicate that the integration of ICT into village services can increase social participation, governance efficiency, and the quality of public services (Visvizi & Lytras, 2018). However, research also identifies several obstacles, such as limited internet infrastructure, lack of training for officials, and community resistance to new technologies (Gunawan & Arifin, 2023). This synthesis provides an understanding that the success of digital village applications is not solely related to technology, but also to social, institutional, and educational readiness of the community.

- Theoretical Framework

The theoretical framework in this study integrates three main concepts: e-government theory, e-service quality theory, and citizen satisfaction theory. First, e-government theory explains how the government utilizes information technology to improve the effectiveness, efficiency, and accountability of public services (Fang, 2019). In the village context, e-government is realized through the implementation of digital applications that replace traditional manual and time-consuming administrative processes. This framework helps understand the role of DIGIDES as an instrument for modernizing village governance, facilitating citizen interactions with the village government.

Second, e-service quality (E-SQ) theory is used to assess the quality of application-based services. The E-SQ model measures five main dimensions: efficiency, reliability, privacy, responsiveness, and user experience (Zeithaml et al., 2019). This theory is relevant for measuring how DIGIDES provides convenience, speed, security, and comfort to its users. Third, customer satisfaction theory is used to explain how application users perceive and experience influences their level of satisfaction. This theory states that satisfaction arises when the service provided meets or exceeds user expectations (Kotler & Keller, 2020).

The integration of these theories provides a strong analytical foundation for evaluating service quality, constraints, and community satisfaction with DIGIDES. This theoretical framework is then incorporated into an analysis that links the quality of application services (input), the DIGIDES usage process (process), and community satisfaction (output). Thus, this framework not only helps explain the phenomenon under study but also serves as a reference in identifying aspects that need improvement to ensure a more optimal and inclusive DIGIDES implementation.

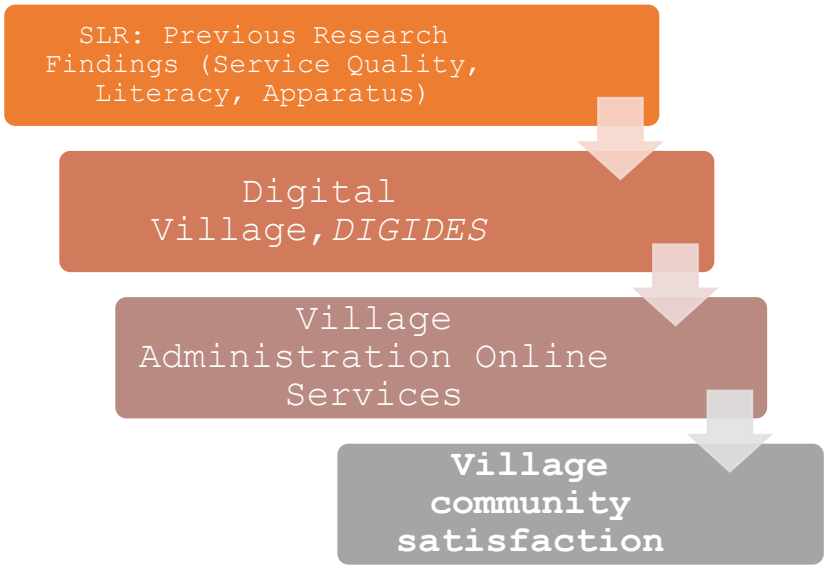

Figure 1 Digital Village Framework Diagram

C. RESEARCH RESULTS AND DISCUSSION

- Research Results

The results show that the implementation of the Digital Village Application (DIGIDES) in Pao-Pao Village has brought significant changes to the public administration service mechanism. Village officials stated that before the application's use, the service process tended to be slow due to its reliance on manual forms and the physical presence of residents. After DIGIDES was implemented, administrative requests such as domicile certificates, relocation letters, and population documents can be submitted online via Android smartphones. This change is considered to have accelerated the service flow because documents are directly received and processed by village operators without having to wait for residents to come to the office. Residents reported easier access to services even though they are far from the village center. This change in work patterns is an early indicator of increased efficiency in service digitization. Village officials stated that the system has become more organized and well-documented. These findings form the basis for assessing community satisfaction with digital transformation.

Regarding service speed, most respondents stated that DIGIDES significantly accelerated administrative processing times. Whereas previously, services could take one to two days due to waiting for signatures or manual verification, the process now takes only minutes or a few hours. In some cases, residents received digital documents directly through the app without having to visit the village office. This experience fostered a positive perception of service efficiency, especially for residents with busy work schedules. Village officials also confirmed that the app system streamlined the verification process because notifications of incoming applications appeared in real time. This speed contributed to increased user satisfaction. However, there were still instances where internet connection disruptions hampered service speed. Despite this, the majority of users still considered the app a significant improvement compared to conventional services, demonstrating the initial success of digital transformation in the village.

The app's ease of use was also a key focus in this study. Most productive-age residents found the DIGIDES interface to be quite simple and easy to understand. The administrative service menu was structured so users could immediately select the desired service. Respondents stated that

the document submission process only required a few steps, such as filling in personal data, selecting the service type, and uploading the required documents. Accessibility via Android makes the app more relevant to the daily lives of residents, who predominantly use smartphones. Village officials reported that the rate of data entry errors was significantly reduced because residents filled out the digital forms themselves. This facilitated verification and electronic archiving. This convenience contributed to community satisfaction. However, the application still requires improvements to its interface for older adults. Nevertheless, the majority of users agree that it simplifies administrative services.

Regarding technology acceptance, the community demonstrated a fairly high level of adoption of DIGIDES, especially among the younger and middle-aged groups. They considered the application practical, fast, and reduced the need to visit the village office, which was previously considered time-consuming and expensive for transportation. Research findings confirmed that perceived usefulness was a key factor in the high acceptance of the application. Residents felt the application truly helped simplify administrative matters. Conversely, for older adults, adoption of the application remained low due to limited digital literacy, requiring assistance from family or village staff. Village officials noted that approximately 30% of administrative applicants still came in person for assistance operating the application. This indicates that digitalization has been positively received, but additional mentoring and digital literacy strategies are still needed. Overall, the level of technology acceptance is high and supports service sustainability.

The quality of digital services was also an important indicator analyzed in this study. Respondents assessed that digital services through DIGIDES were relatively responsive, as each request was processed quickly by village operators. Furthermore, the existence of digital archives helps improve data accuracy, thereby reducing the risk of file loss. However, it was noted that communication between officials and the public through the application still needs to be strengthened, for example by adding an automatic notification feature when documents have been processed. Village officials explained that the digital workload is relatively balanced with The improved service quality is also supported by the orderliness of the application's recording system. However, some residents complained about the sometimes confusing confirmation messages. This finding indicates that the quality of digital services is good, but still requires technical adjustments in application development.

The research also revealed that community digital literacy is a significant factor in the success of DIGIDES implementation. Residents accustomed to using mobile banking applications, marketplaces, and other digital services demonstrated rapid adaptation to online administration services. Meanwhile, residents less familiar with technology often experienced confusion when uploading documents or entering data. Village officials stated that some residents still frequently requested assistance with the data entry process. This literacy factor also influences user satisfaction levels. Those with good digital literacy tended to rate the application as helpful and efficient, while users with low literacy more frequently encountered technical obstacles. The research also noted the need for more intensive outreach programs, particularly for digitally vulnerable groups such as the elderly. Therefore, digital literacy is a key element in the success of digital village services.

From a technological infrastructure perspective, the research found that internet network conditions were one of the most significant obstacles. Although most areas of Pao-Pao Village have adequate internet access, network disruptions still frequently occur at certain times, particularly during inclement weather. This delays access for residents seeking services through DIGIDES. Village officials acknowledged that the verification and document delivery processes are also hampered when the network is weak. In addition to network factors, the availability of smartphones for residents from low-income backgrounds also presents a challenge. Some residents still use older devices that do not support the application. Nevertheless, the majority of respondents are still able to access services online. These infrastructure constraints indicate that the success of digitizing public services depends not only on the application but also on the readiness of the supporting technology ecosystem. This is an important consideration in developing policy recommendations.

The research also identified that the level of DIGIDES socialization is still suboptimal, affecting its optimal utilization. Several residents stated that they learned about the application through neighbors or family, rather than through direct socialization from the village government. Village officials acknowledged that socialization is conducted through regular meetings, social media, and verbal announcements, but has not been comprehensively distributed to the entire community. This lack of public awareness has resulted in low app utilization, especially among groups with limited digital media usage. Residents who have used the app suggested that the

village government increase outreach through in-person training or video tutorials. These findings indicate that outreach is a strategic factor that needs to be strengthened to increase and more equitable DIGIDES utilization across all community groups.

Regarding data security, the study found that the public generally does not understand how personal data is stored in the DIGIDES app. However, most respondents believe that the village government maintains the confidentiality of their data. Village officials explained that the app has a server-based data storage system that is password-protected and has limited access. However, there is no formal data security policy published to the public. This has led some users to remain skeptical, particularly regarding the protection of sensitive data. Residents hope the village government will provide clearer information regarding data privacy and how the app safeguards their personal information. These findings suggest that public trust in data security is still in its infancy and needs to be strengthened through policies and transparency. This is crucial for increasing trust in digital services.

The study also shows that the use of DIGIDES has a positive impact on the effectiveness of village officials. They stated that digitization helps reduce the backlog of manual files and speeds up administrative processes. Furthermore, searching for archives becomes easier because all data is stored digitally in the application system. Village officials can quickly access residents' documents when needed. This transformation provides This system has improved work efficiencies previously difficult to achieve through manual systems. However, there have been complaints that when the server is being updated, the application can be temporarily inaccessible, disrupting services. Overall, village officials believe that using this application provides a more measurable workload and reduces the potential for recording errors. This demonstrates that digital applications not only improve public services but also improve internal village administrative governance.

Interviews also revealed a high level of community satisfaction with DIGIDES. Most respondents expressed satisfaction because the service process has been faster, waiting times have been reduced, and access has been easier. Residents stated that they no longer need to leave work or visit the village office just to process documents. This saves time and transportation costs. Some respondents also appreciated the simple notification system that makes it easier to track the status

of document submissions. However, this satisfaction is not universal, especially among groups less familiar with the application. Technical constraints such as internet connectivity and unsupported devices continue to hinder satisfaction for a small number of residents. Nevertheless, overall, the community acknowledges that DIGIDES provides tangible benefits and improves the quality of public services.

Overall, the research results show that the implementation of DIGIDES in Pao-Pao Village has been quite effective and has had a significant impact on improving the quality of digital-based public administration services. This application has been proven to improve service speed, ease of access, the effectiveness of village officials, and increase community satisfaction. However, several challenges remain, such as limited digital literacy, internet network disruptions, inadequate community devices, and limited outreach. Therefore, although the digitalization of services through DIGIDES has succeeded in driving the transformation of village services towards a more modern and efficient direction, strengthening community digital capacity and improving infrastructure remain critical needs. These findings serve as the basis for formulating more targeted policy recommendations to ensure optimal, inclusive, and sustainable implementation of digital villages.

- Discussion

1. Effectiveness of DIGIDES Implementation in Village Administrative Services

The results of the study indicate that the implementation of DIGIDES in Pao-Pao Village has had a significant impact on increasing the effectiveness of administrative services. The implementation of this digital application successfully overcomes various obstacles to conventional services, such as long waiting times, multi-layered verification processes, and residents' reliance on in-person visits to the village office. This aligns with technology adoption theory, which emphasizes the importance of perceived usefulness and perceived ease of use in increasing technology acceptance by users. The success of digitalization in Pao-Pao Village also demonstrates that technology not only speeds up processes but also improves data accuracy and security. However, this success still needs to be balanced with increased digital literacy among the community and internet network stability to ensure optimal service delivery.

2. Infrastructure and Digital Literacy Constraints Affecting DIGIDES Utilization

The main obstacles encountered in the implementation of DIGIDES are limited internet network infrastructure and low digital literacy among some residents, particularly the elderly. Unstable technological infrastructure is a significant obstacle, causing delays in document submission and processing. Meanwhile, low digital literacy levels mean some communities remain dependent on village officials for assistance. This situation demonstrates that the digitalization of public services cannot stand alone without an adequate supporting ecosystem. Therefore, strategies are needed to increase community capacity in utilizing technology. The existence of these obstacles indicates that the digital divide persists at the village level and needs to be systematically addressed through ongoing outreach and infrastructure support.

3. Public Acceptance of the DIGIDES Application

This study found that the level of public acceptance of DIGIDES is high, especially among the productive age group. This indicates that the digital application has been able to meet the service needs of village communities who desire speed, efficiency, and ease of access. This high acceptance is influenced by the application's simple design, ease of navigation, and the immediate benefits experienced by users. However, the elderly still experience obstacles due to limited digital skills. This demonstrates the need for a differentiated approach to technology outreach so that all community groups can enjoy the benefits of technology equally. Overall, the level of public acceptance reinforces the potential for digitalization of public services to improve the quality of village services.

4. Digital Service Quality as a Driving Factor for Community Satisfaction

Digital service quality is one of the main factors influencing application user satisfaction. Responsiveness of village officials, clarity of administrative processes, and ease of access are important elements positively assessed by the community. Faster service after implementing DIGIDES is a key indicator of success. This finding aligns with the SERVQUAL model, which states that reliability, responsiveness, assurance, empathy, and tangibles are important aspects in determining community satisfaction. In the context of DIGIDES, service quality perceived as good by the community strengthens technology acceptance and has the potential to increase citizen

participation in utilizing digital services. However, application status notification still needs to be improved to make communication between village officials and the community more effective.

5. Implications for the Sustainability of the Digital Village Program

Research results show that the use of DIGIDES has a positive impact not only on the community but also on the effectiveness of village officials. With neater filing, faster service, and more structured administration, the digital system helps improve village governance. However, for the digital village program to be sustainable, long-term strategic planning is required, including budgeting for application maintenance, staff capacity building, and regular system updates. Furthermore, community participation is a crucial factor in sustainability. The higher the utilization rate, the greater the village's opportunity to develop other digital innovations. Therefore, the success of DIGIDES can serve as a model for other villages in implementing digital services based on local needs.

D. CONCLUSIONS AND SUGGESTIONS

- Conclusion

Based on the research results, it can be concluded that the implementation of the Digital Village Application (DIGIDES) in Pao-Pao Village has had a significant positive impact on improving the quality of village administrative services. Digitization has been proven to accelerate service times, improve data accuracy, and provide easy access for the public. However, this success still faces challenges such as limited internet infrastructure, low digital literacy among some residents, and minimal outreach. Public acceptance of this application is quite high, especially among the productive age group who are accustomed to using digital technology. Therefore, digitizing services through DIGIDES can be an effective strategy for improving the quality of public services at the village level if supported by adequate infrastructure, strong staff skills, and active community participation.

- Recommendations

1. The village government needs to collaborate with internet service providers to strengthen the network in Pao-Pao Village. The availability of a stable network is a key prerequisite for the success of digitalizing public services. Regular training is needed for the community, especially the elderly and vulnerable groups, to improve their skills in using digital applications. Training can be conducted through integrated health posts (Posyandu), neighborhood association (RT/RW) meetings, or other village activities.
2. The village government needs to conduct more intensive outreach through various media, such as pamphlets, video tutorials, village WhatsApp groups, and official social media. Outreach must reach all community groups to increase application utilization. DIGIDES needs further development, particularly by adding automatic notification features, application status tracking, and visual user guides. Regular system updates are essential to maintain application performance.

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