

Enhancing Village Information Transparency and Economic Empowerment Through Website Management Training in West Bayah

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ABSTRACT

Strengthening public information openness at the village level is crucial to promote transparency, accountability, and community participation. However, the use of village websites in many areas, including Bayah Barat Village in Lebak Regency, is still limited to static information and has not yet developed as an interactive public service medium. This situation is exacerbated by the limited digital literacy of village officials and inadequate internet infrastructure. This community service activity uses a participatory-based training and mentoring model with a learning by doing method. The stages of the activity include initiation, planning, technical training, mentoring, and post-training evaluation. The results show a significant increase in digital literacy among village officials, with the average skill score rising from 52% to 81%. The previously static village website now features activity news, financial reports, and promotion of local SMEs. Post-training evaluation also indicates an increase in public access to information and participation in village deliberations. Although internet infrastructure remains a barrier, this activity successfully demonstrated that a learning by doing approach with continuous evaluation can strengthen the capacity to manage village websites as a tool for public information openness and local economic empowerment.

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1. INTRODUCTION

Public information transparency is a key pillar of democratic governance, as outlined in the Law No. 14 of 2008 concerning Public Information Transparency, which emphasizes transparency, accountability, and citizen participation in governance. However, at the village level, the implementation of these principles often faces significant challenges. In many regions, including Bayah Barat Village in Lebak Regency, Banten, village websites have been underutilized, mainly serving as static data repositories rather than interactive platforms for public service. The website's limitations include a lack of updated content, such as activity reports, financial statements, or local MSME promotions, and an inability to meet transparency expectations [1], [2].

Situation Analysis

The main problem in Bayah Barat Village lies in the limited capacity of village officials to manage website content strategically, combined with inadequate internet infrastructure that constrains regular updating practices [3], [4], [5]. As a result, although the village website already exists, it has not yet developed into a dynamic and interactive platform. Instead, it still functions primarily as a static display of basic information such as village profiles, government structure, and spatial maps, while routine updates on village activities,

development reports, public service information, and local MSME promotion remain limited [2], [22]. This technical condition has broader social and economic implications. When public information is not updated and presented interactively, the website cannot fully support transparency, accountability, and citizen participation in village governance [6] [7]. At the same time, the absence of promotional content for local products means that the website has also not been utilized as a formal digital space to strengthen village-based economic empowerment. In this sense, the gap is not merely technical, but also social and economic, because weak website management reduces public trust, limits community engagement, and leaves local economic potential underexposed in the digital sphere.

The proposed solution in this community service activity does not assume that the village website can overcome internet infrastructure limitations by itself. Instead, the website is positioned as a governance and information management tool that can function more effectively when village officials are able to prepare, organize, and update content properly. Through targeted training and mentoring, village officials were equipped with digital literacy, content management skills, and technical website management abilities using a learning-by-doing approach under expert supervision. The main intervention therefore focused on strengthening human resource capacity and improving the quality and readiness of website content, including village news, financial reports, and local MSME promotion [3], [8]. In this context, limited internet access remained an external constraint, but the activity demonstrated that better website governance can still be initiated through structured content preparation, periodic updating when connectivity is available, and post-training assistance [9].

This research aims to bridge the gap between existing conditions and best practices in e-government by equipping village officials with the necessary tools and skills for effective website management. The contribution of this research is to demonstrate that through training-based interventions, village officials can successfully manage websites that not only enhance transparency but also empower local economies by promoting local businesses and products.

While several studies have explored the implementation of e-government at the village level [1], digital literacy, and website management [3], research on digital transformation in rural areas remains underexplored. Most existing literature focuses on urban settings or large-scale governance, with limited emphasis on rural economic-digital integration. The novelty of this community service activity lies not only in incorporating digital literacy into village website management, but also in positioning the village website as an integrated formal platform for both public information transparency and local economic promotion. Unlike ordinary social media, which is often fragmented, algorithm-dependent, and less institutionally structured, the village website provides an official, organized, and sustainable digital space where MSME promotion can be directly linked to village identity, public services, and governance transparency. This integrative function makes the village website more relevant as a long-term instrument of rural digital transformation.

A review of the literature reveals several key themes relevant to this research. E-government has been widely studied in the context of digital governance [3], [10]. Village websites, as part of e-government initiatives, are essential for promoting transparency and fostering communication between local governments and citizens [1]. However, the implementation of these websites has often fallen short in meeting the interactive needs of the public. Digital literacy is crucial for the effective management of village websites [8]. Studies have shown that most village officials possess basic IT skills but lack strategic digital competencies to manage content effectively [11]. A critical barrier to the success of digital initiatives in rural areas is poor internet infrastructure [5], [9]. Without reliable internet access, village websites struggle to stay updated, and public participation in digital platforms remains limited.

The role of websites in promoting local MSMEs and the digital economy has gained attention in recent years. Studies have emphasized the potential of digital platforms to boost local businesses and improve the

rural economy [12], [13]. The role of transparency and public participation in enhancing governance has been well-documented [6], [7]. Interactive and regularly updated village websites can foster increased civic engagement and trust in government. Despite these studies, there is a significant gap in research on the integration of digital literacy and e-government practices at the village level, particularly in rural areas with limited internet infrastructure. Additionally, there is little research focusing on the dual role of village websites in promoting both public information transparency and local economic development through digital means.

The contribution of this research is twofold. First, it addresses the gap in digital literacy and website management at the village level by providing a practical intervention to improve transparency and accountability in local government. Second, it highlights the economic-digital orientation of village websites by demonstrating that, compared with ordinary social media, a village website offers a more formal, credible, and institutionally connected platform for promoting local businesses and products. Through this structure, MSME promotion is not presented as isolated online advertising, but as part of an integrated village information ecosystem that supports both economic empowerment and public trust in rural communities.



Figure 1. Administrative Map of Bayah Barat Village

Figure 1 presents the administrative map of Bayah Barat Village, which highlights the geographic context in which the research took place. The location of the village, its connectivity, and the infrastructure challenges it faces are important factors that influenced the implementation of the project. The map also helps visualize the spread of the local community, further supporting the discussion of the village's efforts in promoting public information transparency and local economic development.

2. IMPLEMENTATION METHOD

This section outlines the rationale behind the methods, techniques, and procedures employed in this community service activity. The primary objective was to provide a participatory training and mentoring model that empowers village officials in Bayah Barat Village to manage their official website effectively. The selected methods were aimed at enhancing both digital literacy and website content management, enabling the officials to engage in real-time content updates, such as posting news and displaying financial reports, as well as promoting local MSMEs.

The participatory approach was chosen for its effectiveness in fostering engagement and ensuring that the knowledge transfer was not limited to theoretical aspects but also emphasized hands-on practice. This methodology allows participants to directly apply what they learn in the context of the village's website, ensuring greater retention of skills and knowledge [14], [15]. This is particularly relevant in settings where digital literacy and technical skills need to be developed rapidly.

The training was conducted in multiple stages. The first step involved initial coordination with the local

government and community leaders to align expectations, identify the village's specific needs, and build a foundation of commitment to the program [16]. By involving local leaders, the initiative ensured that all stakeholders were invested in the success of the program, facilitating smoother implementation.

A digital survey instrument was used to map the baseline digital literacy of village officials and assess their current usage of the internet. The training involved [jumlah peserta] village officials as the main participants, while post-activity community feedback was collected through a digital questionnaire from 50 residents. This survey provided insight into the specific training needs of the participants and ensured that the content of the training sessions was tailored to the existing knowledge and skills of the village officials. The results of the survey were used to customize the training modules accordingly, addressing both technical and managerial aspects of website content management [17], [18].

The core of the training was the practical application of website management, based on the learning-by-doing approach. Participants were guided through tasks such as uploading activity news, displaying digital financial reports, and organizing the website's structure in line with the principles of public information transparency, and preparing promotional content for local MSMEs. The MSME promotion materials included product photographs, short product descriptions, business contact information, and categorization of local products such as fishery products and handicrafts. This approach was supported by facilitators who provided real-time assistance, ensuring that all participants gained practical experience in managing the website effectively [19], [20].

Post-training evaluation was conducted through pre- and post-tests to measure the improvement in digital literacy among the participating village officials. The pre-test assessed participants' baseline skills, while the post-test measured the skills they had gained by the end of the training. Additionally, post-training monitoring was carried out for two months to evaluate the sustainability of the website updates and to track the frequency of content updates. This was done through direct observation of the website and by gathering feedback from the community through digital surveys involving 50 respondents [17], [21].

One of the challenges encountered during the project was the limited internet infrastructure in the village. Therefore, the training design was synchronized with these field constraints by emphasizing content preparation, document organization, and offline drafting before the uploading stage was carried out when internet access was available. In other words, the activity did not assume stable real-time connectivity throughout the process, but adapted the implementation to local infrastructure limitations. Despite this challenge, the project demonstrated that even in environments with weak connectivity, a participatory and hands-on approach could still result in meaningful improvements in website management, digital literacy, and the continuity of village information services. [5], [9]

The methodology used in this project is both technically and socially relevant, as it takes into account the specific needs and limitations of rural communities. It provides a comprehensive solution by combining technical skills training with practical application, ensuring the long-term success and sustainability of the village's digital transformation. Furthermore, the approach is adaptable and could be applied in other villages with similar needs.

3. RESULTS AND DISCUSSION

Initial observations showed that the official website of Bayah Barat Village (bayahbarat.desadigdaya.id) was already available with an active domain. However, the website had not yet functioned optimally as an interactive public information platform. Quantitative baseline observations indicated that, before the activity, the frequency of website updates was still 0 for village activity news, 0 for development reports, and 0 for local MSME promotion. In addition, the pre-test results showed that the average digital literacy score of village officials was only 52%, with website content management at 50%, digital communication strategies at 48%,

and transparency and accountability aspects at 50%. These findings indicate that the website was still functioning more as a basic data archive than as an active instrument for public information transparency and local economic promotion. This condition is consistent with previous studies showing that many villages still rely on conventional media, such as bulletin boards, to disseminate information [2], [22].



Figure 2. Screenshot of Bayah Barat Village's official website

The learning-by-doing-based training produced significant results in enhancing the capacity of village officials. Before the training, the officials were only able to upload basic information, but after the training, they were able to:

1. Operate the website's admin panel to update menus and content structure.
2. Upload news about village activities in narrative and photo formats.
3. Display the village's financial reports in digital format (PDF).
4. Create a dedicated page for promoting local MSMEs and products.

The pre-test and post-test results showed an average increase in the digital literacy score of the village officials from 52% (basic level) to 81% (good level). This data shows that the learning-by-doing method is more effective in improving practical skills compared to traditional lecture methods [14], [15].

The findings of this study reflect significant progress in enhancing the digital literacy of village officials and the functionality of Bayah Barat Village's website. The results are organized around the main research questions and are supported by adequate data to answer those questions. Below is a detailed discussion of the findings, comparing them with previous studies, and offering explanations for the observed results.

Table 1. Comparison of pre-test and post-test digital literacy scores of village officials

Digital Literacy Aspects	Pre-test (%)	Post-test (%)	Increase (%)
Basic computer operations	60	85	+25
Website content management	50	80	+30
Digital communication strategies	48	79	+31
Transparency & accountability	50	82	+32
Average	52	81	+29

Monitoring was conducted two months after the training, evaluating the sustainability of website management. The evaluation results showed an increase in the frequency of content updates. During the two-month period, the website displayed 7 news updates on village activities, 2 development reports, and 3 local MSME promotions. Additionally, village officials showed initiative by creating a new "Public Information" section, which displayed the village's work plan and the use of village funds.

Community feedback gathered through a digital questionnaire (n=20 respondents) showed that 72% of residents felt it was easier to access village information after the website was updated, while 68% rated the

displayed information as relevant to their needs. However, challenges still existed regarding internet infrastructure; 45% of respondents reported difficulties in accessing the website due to unstable signals. This evaluation indicates that although digital literacy has improved, infrastructure limitations continue to be a barrier [5], [9].

Table 2. Comparison of frequency of website content updates in Bayah Barat Village

Content Type	Before Activity	After Activity	Change in Frequency
Village activity news	0	7	+7
Development reports	0	2	+2
Local MSME promotion	0	4	+ Change in Frequency
Public information (work plan, village funds)	Not available	1 new section	+1 new section
Total updates	0	14	+14

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Community feedback gathered from a digital questionnaire (n=50 respondents) showed that 72% of residents felt it was easier to access village information after the website was updated, while 68% found the information displayed relevant to their needs. However, challenges remained regarding internet infrastructure, as 45% of respondents reported difficulties accessing the website due to unstable internet connectivity. These findings indicate that the website should not be understood as a substitute for adequate internet infrastructure. Rather, its contribution lies in improving the availability, organization, and transparency of village information once access is obtained by users. This evaluation suggests that, although digital literacy and website management capacity improved, infrastructure limitations remained an external constraint affecting the equal accessibility of digital information [5], [9].

The successful update of the village website brought positive impacts on transparency and public trust. Information related to the village’s financial reports that were uploaded digitally increased government transparency. This encouraged the community to participate more actively in village deliberations, as seen by a 25% increase in attendance at Musdes (village deliberation meetings) compared to the previous period.

Table 3. Community Attendance at Musdes Before and After Training

Musdes Period	Number of Participants	Increase (%)
Before training	20 people	-
After training	25 people	+25

One innovation from this program was the use of the village website as a tool for promoting the local economy. Village officials created a dedicated page for local MSMEs and featured products such as fishery products and local handicrafts. In the two months following the training, 10 local MSMEs were featured on the village website, and several small business owners reported an increase in orders after their products were promoted online. The literature emphasizes that digital technology can enhance the competitiveness of the rural economy through the promotion of local products [12], [13]. However, the contribution of this activity goes beyond simply moving promotion into the digital sphere. Compared with ordinary social media, the village website provides a more official and structured platform, where MSME information is documented systematically, associated with the formal identity of the village, and presented alongside public information services. This integration strengthens the credibility of promoted products and allows economic promotion to operate within a broader framework of transparency and village governance. Thus, this activity not only

addresses the issue of public information transparency but also demonstrates a more integrated model of economic-digital empowerment in village website management.



Figure 3. Screenshot of the MSME Promotion Page on Bayah Barat Village's Website

4. CONCLUSION

The community service activity in Bayah Barat Village successfully demonstrated that learning-by-doing-based training significantly enhanced the capacity of village officials to manage websites more effectively. The main outcome was the improvement of digital literacy among village officials, as indicated by their newly acquired skills in uploading activity news, displaying financial reports, and utilizing the website as a tool for promoting local MSMEs. Another positive impact identified was the increased public information transparency, evidenced by higher community attendance at village deliberation meetings (Musdes) and greater public trust in the village government.

One of the strengths of this activity was the intervention model, which did not stop at technical training but also included post-training evaluation to monitor the sustainability of website management. Furthermore, the innovation of economic-digital orientation through local product promotion added a new contribution that is rarely addressed in similar programs. However, there were limitations, such as the internet infrastructure constraints that still hindered equal access to information. This external factor remains a challenge that cannot be solved solely through improvements in human resource capacity.

In the future, similar activities can be developed through broader collaborations with local governments and internet service providers to address digital infrastructure limitations. Additionally, the development of advanced training modules focusing on digital communication strategies, data security, and the integration of online public services could further strengthen the role of village websites not only as tools for information transparency but also as pillars of economic and social development in rural areas.

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