



DIGITAL TRANSFORMATION OF TOURISM VILLAGES: IMPLEMENTATION OF MOBILE APPLICATIONS AND E- PESESSERTOUR WEBSITES FOR PROMOTION OF LEMBUNG MARINE TOURISM

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Abstract

The potential of marine tourism, especially mangrove ecotourism, in Lembung Village, Pamekasan, has not been optimally promoted due to the limitations of conventional methods and minimal use of digital channels. This condition hinders the visibility and attractiveness of destinations in the digital era. This community service aims to initiate a digital transformation of Lembung Village tourism promotion by developing and implementing an integrated platform (mobile application and website) e-PesesserTour. The implementation method is participatory, involving local partners (Pokdarwis, BUMDes) in needs analysis, design, development, and implementation of the platform. The primary focus of implementation is increasing partner capacity through workshops and intensive mentoring in digital marketing strategies, content creation, and management of the e-PesesserTour platform (<https://e-lembung-pesessertour.com>) as a promotional tool. The results show the success of launching a functional, informative digital promotion platform that displays the village's attractions, including 3 new tour packages that have been developed. There was a significant increase in the digital capacity of partners, as evidenced by 90% of participants stating an increase in understanding of digital technology and an average score of post-training knowledge/skills tests reaching 85%. During the program implementation period, positive impacts were also observed in the form of an increase in tourist visits of up to 40%, an increase in BUMDes income of up to 50%, and a level of tourist satisfaction reaching 85%, some of which can be attributed to the rise in the quality of digital promotion and services. It was concluded that implementing the e-PesesserTour platform, supported by strengthening HR capacity, played a significant role as a catalyst for the digital transformation of Lembung Village tourism promotion, increasing the visibility and competitiveness of the destination sustainably.

Keywords: Digital Transformation, Tourism Village, Mobile Application, Promotion Website, Digital Marketing, Marine Tourism, Mangrove Ecotourism, e-PesesserTour, Capacity Building, Lembung Village.

INTRODUCTION

Tourism Villages is a sustainable tourism strategy in Indonesia that follows global trends toward authentic experiences and community engagement. This initiative empowers local communities, preserves culture, and ensures national economic equity. The Indonesian government formalised Tourism Villages, or “integrated tourism villages,” in 2002 to promote localised sustainable development (Pickel-Chevalier et al., 2021). In Wringinputih, Borobudur, ecotourism has improved community cohesion and resource conservation, but corruption and lack of planning remain (Jaya et al., 2024). These villages need the support of local governments, businesses, and academic institutions, as shown in West Sumatra, where community culture greatly impacted sustainable outcomes (Ferdian et al., 2024). Tourism villages in Bandung Regency must be managed across sectors to integrate environmental, economic, and social factors (Buchari et al., 2024). Laweyan

proves that green architecture and community collaboration can preserve local culture and promote sustainable development (Yuliani & Setyaningsih, 2025). However, Komodo National Park's transition to an ecotourism-driven economy shows the difficulty of balancing ecological sustainability with community needs, suggesting a broader policy framework (Lasso & Dahles, 2023). The Nglanggeran Tourism Village in Yogyakarta shows how collaboration between organisations, especially youth-led ones, can promote sustainable community-based tourism (Manaf et al., 2018). Despite these efforts, infrastructure and agency coordination issues limit Indonesia's sustainable tourism potential (Sushartami & Spencer, 2024). Tourism Villages in Indonesia demonstrate the need to combine cultural, ecological, and economic strategies to promote sustainable rural tourism (Saputro et al., 2023).

The digital revolution has changed how tourists interact with destinations and service providers. Tourism service providers, including Tourism Village managers, must integrate digital technologies like the Internet, smartphones, and social media to stay competitive. Recent literature shows travellers now use digital platforms for destination inspiration, price comparison, reviews, reservations, and navigation. Gutierrez et al.'s systematic literature review found that digital transformation improves tourism, identifying digital marketing and the digital economy as crucial to tourism business development (Gutierrez et al., 2025). According to Madzik et al., digital transformation improves innovative tourism management and digital destination marketing, especially during the COVID-19 pandemic, accelerating industry adoption of digital technologies (Madzik et al., 2023). Jiang and Phoong note that digital technologies help develop tourism products and raise cultural awareness, showing how the pandemic has highlighted the importance of digitalisation for tourism economic sustainability (Jiang & Phoong, 2023). Rodrigues et al. also found that the Industry 4.0 paradigm has changed tourism, emphasising visitor-technology interactions and the need for digital competencies among tourism professionals (Rodrigues et al., 2024). Frenzel et al. discuss how digital technologies affect marketing and visitor feedback and the growing research interest in digitality and virtuality in tourism (Frenzel et al., 2022). Massimo and Ricci show how mobile apps can improve travel by integrating online and offline user behavioural data (Massimo & Ricci, 2020). Wu et al. argue that deep integration of the digital economy with the real economy of tourism is essential to future development (Wu et al., 2024). (Sinanan & Ritter, 2024) I also recommend studying how emerging media technologies shape tourist experiences and how they may perpetuate inequalities. Gössling's critical review emphasises the profound changes ICTS has made to global tourism and the need for a nuanced understanding of digital affordances and concessions (Gössling, 2021). These studies show how digital technologies have transformed tourism, highlighting the need for service providers to adapt and use these tools to boost visibility, engagement, and revenue.

Amidst these dynamics, Lembung Village, located in the coastal area of Galis District, Pamekasan Regency, Madura, East Java, has promising marine tourism potential but has not been optimally developed. As an agrarian marine village with most of the population working as salt

farmers and fishermen, Lembung Village has an attractive coastal landscape, especially with a reasonably extensive mangrove forest. The existence of this mangrove ecosystem is not only ecologically vital as a protector of abrasion and a habitat for various marine biota, but also has a strong aesthetic and educational appeal to be developed as an ecotourism destination. The local community has realised this potential, as evidenced by the initiative to form the "Green Belt" Tourism Awareness Group (Pokdarwis) since 2017, focusing on developing marine tourism and achieving success at the district level. In addition, there is also the Village-Owned Enterprise (BUMDes) "Sumber Rezeki," which was founded in 2020 and has a tourism business unit, as well as an active village Karang Taruna.

Despite its rich natural potential and community institutions that are starting to move, tourism development in Lembung Village faces significant challenges, especially in terms of promotion and marketing in this digital era. The initial situation analysis report shows that the marine tourism potential of Lembung Village is not yet fully known to the broader public. Promotion efforts are still minimal and tend to be conventional. Information about tourist attractions, packages offered, available facilities, and how to access destinations has not been effectively distributed to potential tourists. Digital media, such as special village tourism websites or strategic use of social media for promotion, is still minimal. As a result, the reach of promotion is limited, and the village has difficulty attracting the attention of tourists from outside the area or tourists actively looking for information online.

Furthermore, the constraints of digital promotion are exacerbated by the limitations of digital infrastructure and human resource capacity at the local level. Unstable or inadequate internet access in several village areas is a technical obstacle. Lack of access to information and communication technology (ICT) devices and community knowledge and skills in utilising ICT for productive purposes, including tourism promotion, are also obstacles. Pokdarwis and BUMDes, as the driving force of village tourism, recognise the weakness in human resources who are experts in digital promotion and marketing. The combination of the lack of digital promotion strategies and limited infrastructure and human resource capacity directly impacts the low number of tourist visits and the minimal contribution of the tourism sector to local community income. This condition creates an urgency for interventions to bridge the digital divide and transform how Lembung Village promotes its tourism assets.

In response to these challenges and opportunities, digital transformation in the promotional aspect is an unavoidable strategic step for Lembung Village. In an era where travel decisions often start from online information searches, a representative and easily accessible digital storefront is crucial. Websites and mobile applications offer an ideal platform for presenting destination information comprehensively and attractively. Through this platform, Lembung Village can showcase its natural beauty through photo and video galleries, explain the tour packages offered in detail,

provide practical information on accommodation, local cuisine (UMKM), transportation, and provide interactive features such as direct booking or contact. A well-managed digital platform expands the reach of promotion exponentially and builds an image of professionalism and readiness of the village in welcoming tourists. Therefore, developing and implementing digital promotional tools is a priority to open up the tourism potential of Lembung Village more widely.

In this context, the 2024 Community Service Program by Students (PMM) of the Ministry of Education and Culture entitled "e-PesesserTour: Strengthening Marine Tourism Potential through Smart Tourism Information System Assistance and Community-based Tourism Management in Lembung Village, Pamekasan Regency" was implemented. One of the main focuses of this program is to answer the promotion challenge by developing and implementing an innovative tourism information system, which is manifested in the form of the e-PesesserTour website and mobile application. This digital platform is designed as a comprehensive tool for tourism management partners (Pokdarwis and BUMDes) for internal management and as the main promotional and marketing media for marine tourism in Lembung Village. The website (<https://e-lembung-pesessertour.com/>) and mobile application are expected to be the 'digital face' of Lembung Tourism Village, presenting all its potential to the outside world in an attractive and easily accessible manner.

Based on this background, this paper aims to specifically analyse the process of implementing the e-PesesserTour mobile application and website and evaluate its role in transforming marine tourism promotion activities in Lembung Village. The analysis will cover how this platform was developed based on local needs, the implementation process and assistance of its use by partners, and how this digital platform changes the landscape of village tourism promotion from traditional methods to a more modern and practical digital approach. This paper will begin with an explanation of the program implementation method that focuses on the development and implementation of the promotion platform, followed by a presentation of the results in the form of the platform and the impact of its implementation on promotion efforts, and end with a discussion of the significance of this digital transformation and conclusions along with suggestions for further development.

Table 1. Description of Problems, Solutions and Objectives of Community Service

No	Main Problems in Lembung Village	Ultimate Solution	The main purpose
1	Digital Promotion & Marketing Not Optimal: Low visibility, limited reach	e-PesesserTour Digital Platform Development (Website & Mobile Application)	Developing a Smart Tourism Information System.
		Intensive Digital Marketing and Content Management Training	
		Improving digital promotion and marketing of marine tourism	
2	Limited Partner HR Capacity: Lack of tourism management knowledge & skills (services, finance,	Training & Mentoring: Tourism Service Standards, Financial & Administrative Management, New Product Development	Empowering communities in tourism management
		Improving the knowledge and skills of	

No	Main Problems in Lembung Village	Ultimate Solution	The main purpose
	products)	tourism management partners	
3	Limited Digital Infrastructure and Literacy: Minimal internet access, devices, and understanding of ICT	Internet Network Development/Improvement Supporting Digital Devices Assistance ICT Literacy and Utilisation Training. PLTS & CCTV Installation Improving digital infrastructure to support tourism	Supporting the implementation of the Smart Tourism Information System
4	Low Quality of Tourism Services and Facilities: Inadequate facilities and service standards are not optimal	Improving the Quality of Tourism Facilities Service and Hospitality Standards Training.	Improving the quality of marine tourism products and services
5	Low Community Participation and Awareness: The Community-Based Tourism (CBT) approach is not yet strong	Socialisation and Mentoring of the Implementation of CBT Principles Sustainable and Responsible Tourism Management Training Increasing community awareness and active participation in tourism development	Empowering communities collectively
6	Weak Coordination Between Stakeholders: Penta Helix Synergy (Government, Academics, Community, Business, Media) has not been established	Initiation & Facilitation of Penta Helix Stakeholder Communication Forum	Formulating a more integrated and collaborative tourism development strategy
7	Institutional and National Objectives	The entire series of activities above	Supporting the MBKM program for students Improving Higher Education IKU (IKU 1: Decent Work, IKU 2: Off-Campus Experience, IKU 7: Lecturers' Work Results Used by the Community

METHOD AND PROCEDURES

Implementing the community service program that focuses on the digital transformation of marine tourism promotion in Lembung Village by implementing the e-PesesserTour mobile application and website, adopts a systematic and participatory framework.

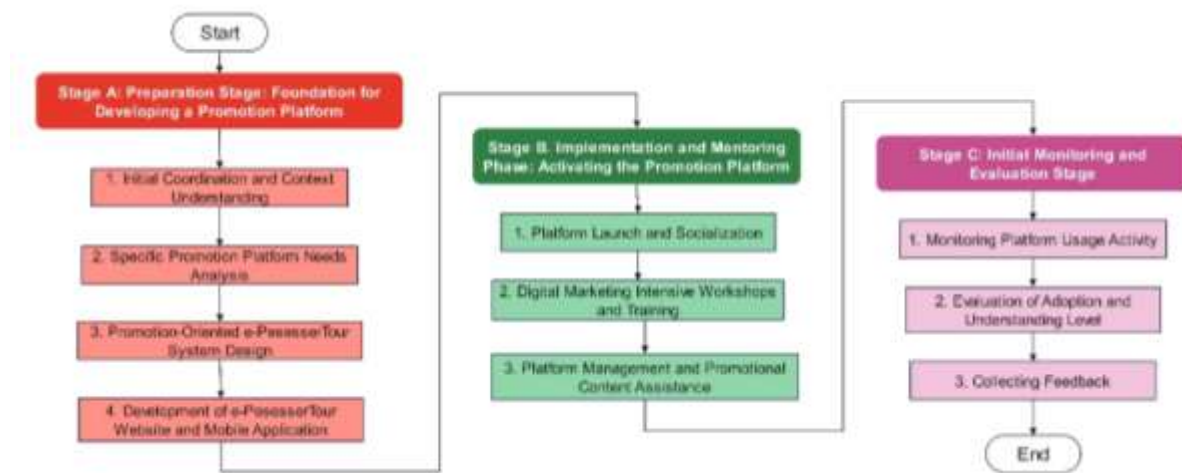


Figure 1. Community Service Activity Flowchart

This framework is designed to ensure that the technological solutions developed are relevant to local needs and can be implemented and utilised sustainably by target partners, namely the Green Belt Tourism Awareness Group (Pokdarwis), the Sumber Rezeki Village-Owned Enterprise (BUMDes), Karang Taruna, and the Lembung Village Government. In general, this service methodology refers to four main approaches that are mutually integrated.

1. Participatory Method

This approach emphasises the active involvement of target partners in every stage of the activity, starting from identifying promotional problems, analysing digital platform feature needs, the design process, testing, and the implementation and evaluation stages. This involvement aims to foster a sense of ownership of the e-PesesserTour platform and ensure solutions are tailored to the local context and capacity.

2. Education Method

This approach is realised through a series of training activities and workshops designed to increase partners' knowledge and understanding of digital transformation, the urgency of digital promotion, modern tourism marketing strategies, and effective ways to utilise the e-PesesserTour platform as the primary promotional tool.

3. Mentoring Method

The service team provides intensive and ongoing mentoring and training. This mentoring includes technical assistance using the platform, digital promotion strategy consultation, content creation guidance, and troubleshooting problems partners face during the technology adoption process.

4. Monitoring and Evaluation Methods

To measure the program's effectiveness and success, periodic monitoring and evaluation are carried out on the platform implementation process, the level of adoption by partners, and the initial impact of platform use on tourism village promotion activities.

Operationally, the implementation of this community service activity is divided into three

main stages that are interconnected, with a special emphasis on the development and implementation aspects of digital platforms for promotional purposes:

Preparation Stage: Foundation for Developing a Promotion Platform

This stage is crucial to lay the foundation for developing an effective e-PesesserTour platform as a promotional tool. Relevant sub-stages include:

1. *Initial Coordination and Context Understanding*: The activity begins with forming a solid internal service team, supervising lecturers and students. The next step is to socialise the program to all target partners (Pokdarwis, BUMDes, Karang Taruna) and other relevant stakeholders, including the Lembung Village Government. At this stage, the program aims to help overcome promotional obstacles through digital solutions. A participatory approach is applied by opening a discussion space to understand the perspectives, expectations, and potential obstacles from the partner's side regarding the digital transformation plan for promotion.
2. *Specific Promotion Platform Needs Analysis*: A needs analysis was conducted to ensure that the e-PesesserTour platform meets promotional needs appropriately. The methods used include: (a) Semi-structured interviews with Pokdarwis and BUMDes administrators to gather information about current promotional practices, targeted tourists, key information that needs to be conveyed, and specific obstacles faced in reaching potential tourists. (b) Initial Focus Group Discussion (FGD) to validate interview findings and identify priority promotional features expected on the website and mobile application. (c) Observational study of existing promotional materials (if any) and competitor analysis (other tourist villages). The results of this analysis are functional and non-functional platform requirement specification documents strongly oriented towards promotional effectiveness, such as the need for high-quality photo/video galleries, detailed and attractive tour package descriptions, interactive maps, supporting MSME information, and ease of contact/reservation.
3. *Promotion-Oriented e-PesesserTour System Design*: Based on the needs specification, the community service team (especially those with expertise in Information Systems/Information Technology) designs the system architecture, database, and user interface (UI) and user experience (UX) for the website and mobile application. The principle of user-centred design is applied, focusing on: (a) Ease of Access to Information for Tourists: Intuitive navigation design, clear information layout, and attractive visual displays to attract potential visitors. (b) Ease of Content Management for Partners: Design of a Content Management System (CMS) or admin dashboard that is simple and easy to use by Pokdarwis/BUMDes administrators to update promotional information (new packages, prices, photos, events) without requiring in-depth technical expertise. Prototypes or design mockups are presented to partners to obtain input and validation before

entering the development stage, ensuring that the design aligns with local user preferences and capacities.

4. *Development of e-PesesserTour Website and Mobile Application*: This stage is the realisation of the design into a functional digital product. The development process uses the latest web and mobile technologies (for example, PHP/Laravel/Node.js framework for the web backend, React/Vue/Angular for the web frontend, and React Native/Flutter/Kotlin/Swift for mobile applications - technology details can be adjusted if there is specific information or using general terms). Development is focused on implementing promotional features that have been designed, such as gallery modules, tour package management, map integration, MSME directory, and contact/booking forms. Intensive testing is carried out throughout the development cycle, including functionality testing (ensuring all promotional features work correctly), usability testing (ensuring ease of use for both tourists and admins), performance testing (website/application loading speed), and security testing. The final result of this stage is a beta version of the e-PesesserTour website and mobile application that is ready to be implemented and tested further by partners.



Figure 2. FGD Digital Tourism Governance

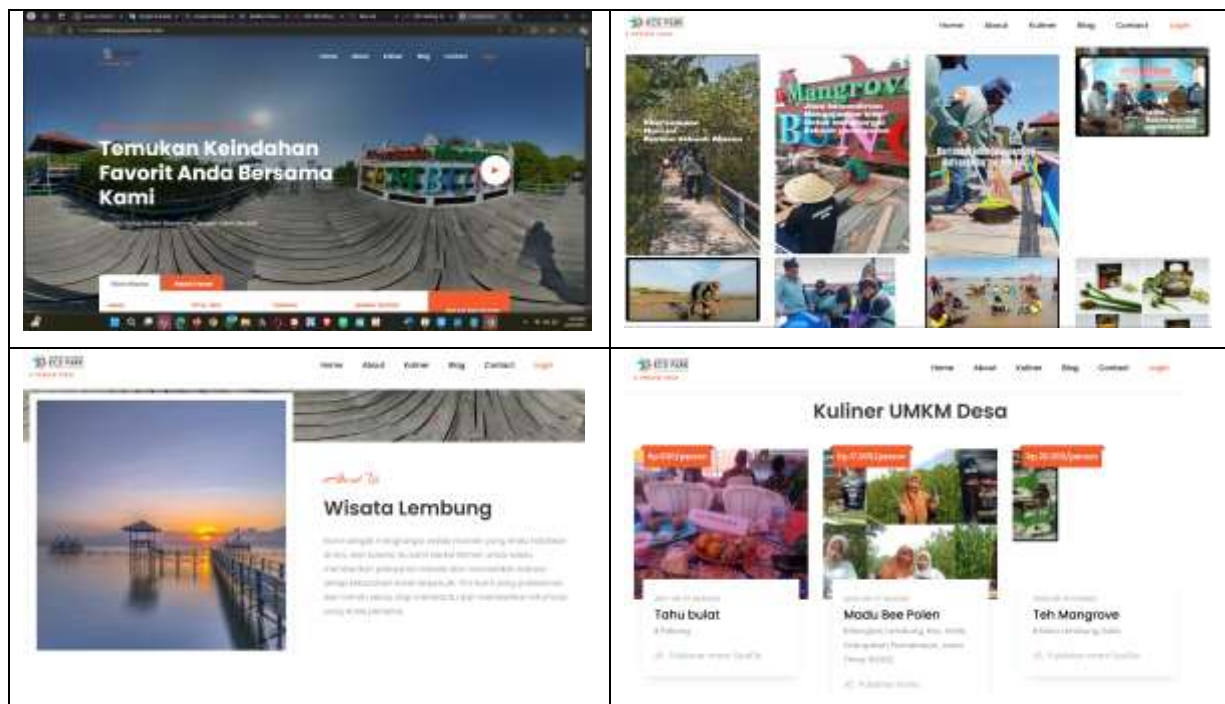


Figure 3. The e-PesesserTour website: <https://e-lembung-pesessertour.com/>

Implementation and Mentoring Phase: Activating the Promotion Platform

Once the digital platform is ready, the focus shifts to on-the-ground implementation and empowering partners to use it effectively as a promotional tool.

1. *Platform Launch and Socialisation: The e-PesesserTour website and mobile application were officially launched and socialised to partners and the village community.* This socialisation activity aims to introduce the platform as the new 'digital face' of Lembung Village tourism and explain its benefits, especially in reaching a broader market.
2. *Digital Marketing Intensive Workshops and Training:* The core of the education and mentoring method focuses on promotion. A series of workshops and training sessions is designed to equip partners with practical knowledge and skills. Key materials include:
 - Platform Introduction: Demonstrate website and application features, especially how to manage and update promotional content via CMS/admin dashboard.
 - Digital Content Strategy: Techniques for taking attractive tourist photos/videos using a smartphone, writing persuasive descriptions (copywriting) for tour packages and other attractions, and planning a promotional content calendar.
 - Integrated Social Media Marketing: How to utilise social media (such as Instagram, Facebook mentioned in the report to promote content from the e-PesesserTour website/application, build engagement with the audience, and direct traffic to the central platform.
 - SEO (Search Engine Optimisation) Basics: Introduction to the basic concepts of SEO so that search engines such as Google can find website content more easily.
 - Simple Analysis: How to read basic website visitor data (if the analytics feature is enabled) to understand the effectiveness of promotions. Delivery methods include interactive presentations, case studies, live demonstrations, and hands-on sessions. The key workshop is the "Lembung Marine Tourism Digital Marketing and Promotion Workshop" held on October 26, 2024, at the tourist location.
3. *Platform Management and Promotional Content Assistance:* The service team provides ongoing assistance for several months after formal training. This assistance is in the form of mentoring, where the team directly assists partners in: (a) overcoming technical difficulties when uploading or updating promotional content. (b) Providing input on the quality of content created by partners. (c) Helping plan and implement simple digital promotional campaigns. (d) Ensuring that the platform remains active and up-to-date with the latest promotional information.



Figure 4. Digital Tourism Governance Workshop and Mentoring

Initial Monitoring and Evaluation Stage

Throughout and after the implementation phase, monitoring and evaluation are carried out, which in the context of this paper, focuses on the promotion aspect:

1. *Monitoring Platform Usage Activity*: Monitoring the frequency and quality of promotional content updates made by partners on the website and application, and observing partner promotional activities on social media connected to the platform.
2. *Evaluation of Adoption and Understanding Level*: Assessing the extent to which partners have adopted the e-PesesserTour platform in their promotional routines and their level of understanding of digital marketing concepts through post-training questionnaires or evaluative interviews.
3. *Collecting Feedback*: We collect feedback from partners regarding the platform's ease of use, the effectiveness of promotional features, and obstacles that still need to be overcome. This feedback is used to improve the platform or adjust the mentoring method in the future.

Through the implementation of this structured and participatory method, the community service program aims not only to produce technological products in the form of websites and mobile applications but also to ensure the transfer of knowledge and skills so that partners can independently use the technology to transform marine tourism promotion in Lembung Village.

RESULTS

This community service activity is focused on efforts to overcome the challenges of marine tourism promotion in Lembung Village through digital transformation initiatives, with the central pillar being the development and implementation of the e-PesesserTour digital platform (mobile application and website). This section will describe the key results achieved related to the form of the promotional platform, its implementation process at the community level, and its initial impact on

promotional activities and visibility of Lembung Tourism Village. The discussion will examine the significance of these results in the context of the digital transformation of village tourism.

The Form and Functionality of the e-PesesserTour Digital Promotion Platform

The participatory design and development stages resulted in the successful realisation of the e-PesesserTour digital platform, which consists of a website (publicly accessible via <https://e-lembung-pesessertour.com/>) and a supporting mobile application. This platform is specifically designed to function as the leading digital showcase and integrated information centre for promoting the marine tourism potential of Lembung Village.

From the e-PesesserTour Website side, the user interface is designed with easy navigation and visual appeal for potential tourists. The homepage presents the main highlights of the destination, followed by informative menus rich in promotional content. Key features that directly support the promotional function include:

- **Destination Information:** An in-depth description of Lembung Village's uniqueness, brief history, and main attractions (especially the mangrove ecosystem).
- **Tour Packages:** Detailed explanations of the tour packages offered, such as the Mangrove Education Package, Mangrove Adventure Package, and Mangrove Prewedding Photo Package. Information includes activities, duration, price (if any), and how to book.
- **Multimedia Gallery:** This is a collection of high-quality photos and videos that showcase the beauty of the mangrove landscape, tourist activities, facilities, and local products. It serves as the main visual attraction.
- **Local UMKM Directory:** Information on typical culinary products (such as Mangrove Coffee, Bidara Tea and mangrove-based handicraft products that tourists can buy as souvenirs, while promoting community businesses.
- **Practical Information:** Interactive location maps, accessibility/transportation information, supporting facilities (toilets, parking areas, information centres, and tourism management contacts (Pokdarwis/BUMDes).
- **Interactive Features:** Contact forms or direct links for questions and reservations, making it easier for prospective tourists to interact and make initial transactions.

Meanwhile, the e-PesesserTour Mobile Application is designed to provide easy access to information and promotions directly to tourists, potentially offering additional features such as push notifications for special promotions or upcoming events and easy offline access for specific information. From the manager's (partner's) side, this platform is equipped with a Content Management System (CMS) or admin dashboard that is relatively easy to use to update promotional content independently, such as adding new photos, editing package descriptions, or publishing

news/events. The existence of this dual platform (website and mobile) ensures a wider promotional reach to various digital user segments.

Platform Implementation and Partner Promotion Capacity Building

The success of digital transformation lies not only in the availability of technology but also in the ability of local human resources to adopt and utilise it. Therefore, the implementation stage of the e-PesesserTour platform is accompanied by an intensive capacity-building program for tourism management partners (Pokdarwis Sabuk Hijau and BUMDes Sumber Rezeki). After the launch and initial socialisation of the platform, the primary focus is to equip partners with the skills needed to manage this new digital promotion tool effectively. The "Digital Promotion and Marketing of Lembung Marine Tourism" workshop held on October 26, 2024, is one of the main pillars in this education and mentoring process. In this workshop, partners are given practical training on:

- Platform Content Management Techniques: How to log in to the admin dashboard, upload photos/videos, write and edit text descriptions of tour packages or attractions, and ensure information is always accurate and interesting.
- Promotional Content Creation Strategy: Simple photography and videography tips using smartphones to produce quality visual materials, persuasive copywriting techniques, and creative content ideas for websites, applications, and social media.
- Multi-Channel Promotion Integration: Using social media (Instagram, Facebook) to strengthen promotions and direct potential tourists to the website or download the e-PesesserTour application for more complete information or reservations.

The training did not stop at a formal workshop, but was continued with ongoing mentoring for several months. The community service team proactively provided technical assistance, answered questions, provided input on partner-created content, and encouraged partners to update the platform with the latest promotional information regularly. This participatory approach and intensive mentoring effectively increased partners' digital capacity. The final report noted a significant increase in partners' understanding and skills in technology-based tourism management and digital marketing. The understanding of community-based tourism and the ability to practice new skills, such as using applications, developing marketing strategies, and managing attractions, increased, with an average score of 85% on the knowledge/skills test. As many as 90% of training participants stated an increased understanding of digital technology after the program. This shows that partners are not only accepting technology, but are also empowered to use it as their promotional tool.

Impact of Platform Implementation on Promotional Activities and Visibility

Implementing the e-PesesserTour website and mobile application has transformed how Lembung Village promotes its tourism potential. The main impacts can be seen from several aspects:

- Change in Promotion Paradigm: There has been a significant shift from previously sporadic,

limited (e.g., word of mouth or simple brochures), and difficult-to-access promotion methods to a more structured, informative, and accessible digital promotion approach anytime, anywhere through the e-PesesserTour platform. This platform now functions as the primary reference and official source of information regarding Lembung marine tourism.

- **Increased Accessibility of Information:** Prospective tourists can now easily find complete and reliable information regarding attractions, tour packages, facilities, prices, and management contacts through the website and application. This overcomes the initial obstacle of 'lack of information'. This ease of access has the potential to significantly lower the threshold for tourists to consider Lembung Village as their travel destination.
- **Increased Visibility and Reach:** With an online presence through a website indexed by search engines and promotions integrated with social media, Lembung Village's promotional reach has expanded significantly beyond local boundaries. This digital platform allows the village to be 'visible' to a much larger audience, including domestic tourists outside Madura and foreign tourists. Publication of activities in online mass media also helps strengthen the visibility of this digitalisation effort.
- **Early Indications of Increased Tourism Interest:** Although direct causality data requires further analysis, the report indicates a positive impact on visits and revenues after the implementation of the program as a whole. The significant increase in tourist visits (mentioned up to 40% and the increase in BUMDes revenue of up to 50% can be attributed, at least in part, to the effectiveness of digital promotions facilitated by the e-PesesserTour platform, in addition to other service improvement and product diversification factors. The high level of tourist satisfaction (85%) also indicates that the information presented through the promotional platform is consistent with the reality on the ground.





Figure 4. FGD Documentation for Designing Integrated Marine Tourism Strategy and Development with Lembung Tourism Stakeholders

Discussion: e-PesesserTour Platform as a Catalyst for Digital Promotion Transformation

The results of implementing the e-PesesserTour website and mobile application show the central role of this technology as a catalyst for digital transformation in the tourism promotion aspect of Lembung Village. Before the program intervention, promotion could be said to be passive and reactive, with minimal reach. The e-PesesserTour platform marks a significant leap towards a proactive, structured, and digitally oriented promotional approach.

This platform directly addresses the fundamental problems related to the lack of information dissemination and the minimal use of digital channels. By providing a comprehensive 'digital home', e-PesesserTour is an online brochure and a tool to build a more professional and modern destination image (branding). The ease of access to information through this platform aligns with contemporary tourists relying heavily on online searches in planning their trips.

More than just providing technology, the success of this transformation is also largely determined by human resource empowerment. An intensive educational and mentoring approach ensures that this technology does not become a 'white elephant', but is actively adopted and utilised by the local community. Increasing the capacity of partners to manage content and implement basic digital marketing strategies is key to the sustainability of this promotional effort. This shows that digital transformation at the tourism village level requires synergy between providing digital infrastructure/platforms and developing user capacity.

However, it must be acknowledged that digital transformation is an ongoing process. Challenges such as the stability of internet connections at some points, the need to continue to produce fresh and interesting promotional content, and competition in the digital space remain. The sustainability of the effectiveness of the e-PesesserTour platform as a promotional tool will significantly depend on the ongoing commitment of partners to actively manage and update it, as well as support from other stakeholders for infrastructure maintenance and further capacity development.

Implementing the e-PesesserTour mobile application and website has laid a strong foundation for the digital transformation of marine tourism promotion in Lembung Village. This platform not only increases the visibility and accessibility of destination information but also empowers local

communities to take control of their promotional narratives in the digital world, an essential step towards developing independent and competitive tourism villages in the modern era.

Table 2. Community Service Activity Results

Aspects	Main Results	Supporting Evidence	Discussion/Interpretation
1.e-PesesserTour Digital Promotion Platform	• Successfully developed & launched: Public Website & Mobile Application • Key promotional features: Destination info, Tour Packages (Education, Adventure, Prewedding), Multimedia gallery, UMKM Directory (Mangrove Coffee, etc.), Map, Contact/Reservation • Equipped with CMS/Admin Dashboard.	• Website: https://e-lembung-pesessertour.com/ • Feature Description	• The platform functions as a representative and informative digital storefront ('digital face') for Lembung Tourism Village • Provides a structured and comprehensive promotional channel, addressing the problem of initial information availability. • User-oriented design (tourists & management partners).
2.Implementation & Partner Capacity Building	• Implementation of Digital Marketing workshop & intensive training using the platform (Oct 26, 2024). • Significant improvement of knowledge & skills of partners (Pokdarwis, BUMDes) in: platform content management, promotional content creation (photos, videos, text), use of integrated social media. • Continuous technical & strategic assistance.	• Training/Workshop Description: • Skill Improvement Results: 85% Test Score, 90% Improvement in Digital Understanding	• Implementation focuses on technology and empowering local human resources (key to adoption). • Partners are equipped with the ability to manage their digital promotions independently. • Demonstrate the success of knowledge and technology transfer from academics to the community.
3.Impact on Promotional Activities and Visibility	• There is a shift from conventional/limited promotion to structured digital platform promotion. • Increased ease of access to tourism information for prospective tourists. • Increased visibility & reach of online promotions (via web, app, integrated social	• Description of Promotion Changes • Increased Visibility: • Mass Media Publication • Indication of Impact on Visits/Revenue	• The platform effectively addresses the initial 'lack of promotion & information' issue. • Opens wider market access for Lembung Village. • Builds a more professional and digital-ready destination image.

Aspects	Main Results	Supporting Evidence	Discussion/Interpretation
	- media). - Early indications of positive impacts on tourism interest/visits (increased visits & BUMDes revenue reported).		Increased promotion contributes (as one factor) to economic outcomes.
4. Discussion/ Interpretation of Digital Transformation	-	-	- The e-PesesserTour platform is the primary catalyst for the digital transformation of Lembung Village tourism promotion. - Shows that digitalisation can be implemented at the tourism village level with the right approach (participatory, educational, mentoring). - This transformation empowers local communities to control their promotional narrative in the digital realm. - The sustainability of the transformation depends on partner commitment, infrastructure support (internet), and sustainable capacity development.

This table summarises the main results of implementing the e-PesesserTour platform and discusses its significance in the digital transformation of Lembung Village tourism promotion. Each result is supported by evidence from the PMM report, and its relevance is interpreted.

CONCLUSION

Implementing the e-PesesserTour mobile application and website has conclusively become a catalyst for digital transformation in efforts to promote marine tourism in Lembung Village. The successful development of a functional digital platform, displaying comprehensive information including 3 new tour packages, has fundamentally changed how the village presents its potential to the public. This transformation is not only technological, but also human resources, as evidenced by the significant increase in the capacity of local partners; the average score for understanding and skills

in digital tourism management reached 85% and 90% of training participants stated an increase in ICT understanding.

The increase in digital promotion capacity facilitated by the e-PesesserTour platform increased destination visibility and ease of access to information for tourists. The positive impacts observed during the program period, such as the potential for increasing visits by up to 40% and increasing BUMDes' income by 50%, show a correlation between strengthening digital promotion and tourist villages' attractiveness and economic performance. Thus, the e-PesesserTour platform has proven to be a strategic digital asset that empowers Lembung Village to promote tourism more effectively, independently, and sustainably in the digital era.

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