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Implementation of Crowdsourcing Methods in Village Promotion Websites

Ahmad Akbar[1], Indri Sulistianingsih[2], Bagus Kurniawan[3]
[1,2,3,4]Faculty of Science and Technology, Study Program of Computer System
[1,2,3,4]Universitas Pembangunan Panca Budi

ABSTRACT

This study focused on the implementation of the Despro (Village Promotion) application, a web-based platform utilizing crowdsourcing methods to promote the potential of villages, tourist attractions, products, and services in Pari City. The primary objective was to create an effective tool for local governments and village communities to showcase their natural resources, cultural heritage, and local products. The Despro application enables user participation by allowing volunteers to contribute promotional content, thus fostering community engagement. Key features of the application include comprehensive village profile pages, user-uploaded content (such as photos, videos, and stories), a content rating system, search and filtering functionalities, digital map integration for location display, and a messaging system for user interaction. Additionally, the application incorporates a structured 'Tasks' feature, divided into three stages—Preparation, Process, and Completion—to facilitate organized promotional activities. The research employed the waterfall model for software development, encompassing stages of requirements analysis, design, implementation, testing, and evaluation. The results demonstrated that the Despro application effectively enhances the visibility of village potential in Pari City and significantly increases community involvement in rural tourism initiatives.

Keyword : Despro application; Crowdsourcing; Village promotion; Pari City; Rural tourism.

Corresponding Author:
Ahmad Akbar,
University of Pembangunan Panca Budi
Jl. Gatot Subroto, KM.4,5 Medan, Indonesia.
Email : akbarmuno@pancabudi.ac.id

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1. INTRODUCTION

The digital transformation of rural development has become increasingly crucial in leveraging technology to showcase and promote local village potential (Sumartono et al., 2023). Despite the growing importance of digital platforms for local community empowerment, many rural areas struggle to effectively communicate their unique resources, capabilities, and opportunities to a broader audience. Crowdsourcing has emerged as a promising approach to address this challenge, enabling collaborative engagement and information sharing (Liu, 2021).

Previous research has demonstrated the potential of web-based applications in promoting local resources. For instance, Akbar et al. (2022) explored web-based tourism promotion using SEO methods, while Sumartono et al. (2023) highlighted the significance of digital information systems in managing local community resources. However, there remains a critical gap in systematically implementing crowdsourcing methods to comprehensively promote village potential.

This research aims to develop and implement a crowdsourcing-based website application that enables collaborative information gathering and dissemination of village resources. By integrating crowdsourcing techniques, the proposed solution seeks to overcome traditional limitations in local promotion strategies. The innovative approach lies in creating a participatory platform where community members, stakeholders, and external contributors can collectively document and showcase village potential, thereby enhancing visibility and potential economic opportunities.

Drawing from theoretical foundations in software engineering (Sommerville, 2019) and crowdsourcing research (Zhen et al., 2021; Yin et al., 2020), this study will explore how collaborative digital platforms can transform local community engagement and resource promotion. The research contributes to the growing body of knowledge on digital community development by presenting a novel methodological approach to village potential mapping and promotion.

2. RESEARCH METHOD

This research employed a systematic approach to develop the Despro application for promoting Kota Pari village potential through crowdsourcing. The research methodology was structured to ensure comprehensive system design, implementation, and validation.

1. Research Design

The research design followed a mixed-method approach, combining qualitative and quantitative research techniques with software development methodologies. Specifically, we adopted the Waterfall model for system development, as recommended by Wahid (2020), which provides a structured and sequential approach to software engineering.

2. Research Stages

The research was conducted through the following chronological stages:

3. Preliminary Analysis

Conducted comprehensive literature review on crowdsourcing techniques (Zhen et al., 2021)

- Analyzed existing village promotion platforms
- Identified key functional requirements for Despro application
- System Design
- Developed conceptual framework for application features

Created system architecture supporting:

- User contribution module
- Content verification system
- Leaderboard mechanism
- Analytics dashboard
- Social media and digital payment integration

4. Crowdsourcing Methodology Implementation

Implemented a structured crowdsourcing approach based on Liu's (2021) framework, focusing on:

- Open participation
- Content verification
- User incentivization
- Collaborative knowledge creation

3. RESULTS AND DISCUSSION

The research on the DesPro application revealed critical insights into crowdsourcing-based village promotion strategies, with a focus on user interface design and functional capabilities.

1. Homepage Design and Functionality Analysis

The homepage of the DesPro application demonstrated a strategic approach to user engagement and destination promotion. Key findings include:

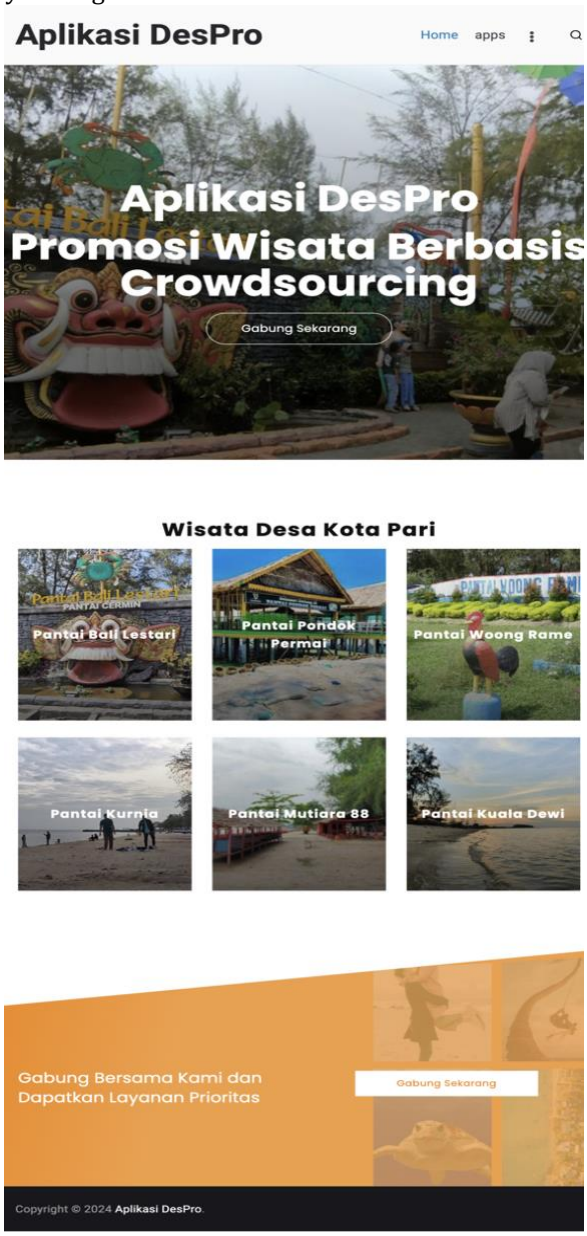

Figure 1. Crowdsourcing Promotion Strategy

Effectively introduces the core concept of crowdsourced tourism promotion, Provides immediate visual and contextual understanding of the application's purpose and Showcases multiple destination types to broaden user interest

Content Presentation Featured destinations, Kota Pari Village, Bali Lestari Beach, Inclusion of travel stories and blogs to enhance user engagement Clear Call-to-Action (CTA) "Gabung Sekarang" (Join Now) to encourage user participation

B. User Authentication and Access Management
The login interface revealed critical security and user management features:

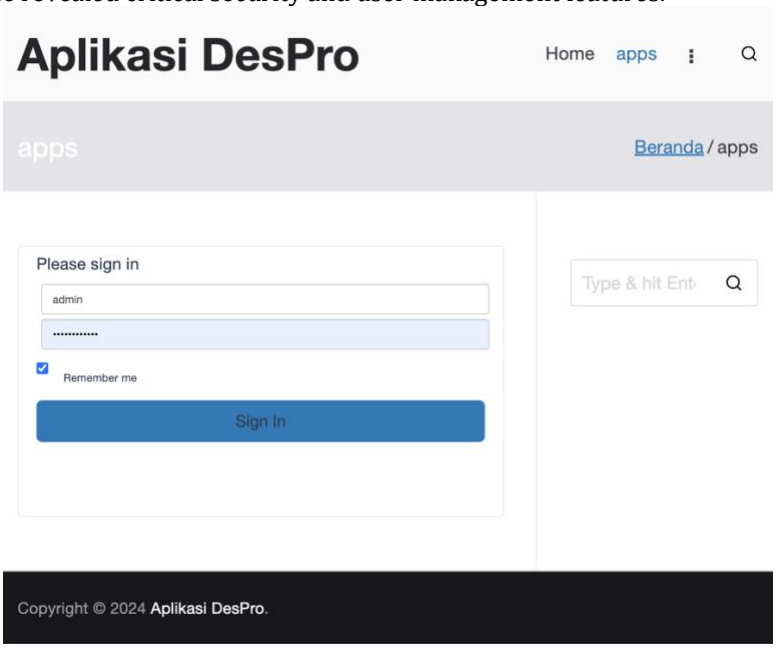

Figure 2. Login Page

Authentication Mechanism, Implements restricted access through user registration, Ensures data privacy and personalized user experience and Enables access to specialized application features

User Ecosystem Integration, Serves as a gateway to the application's full service ecosystem Supports specialized functionalities like: Travel package booking, Content creation and Personalized interactions

C. User Dashboard Functionality
The user dashboard emerged as a comprehensive control center with multifaceted capabilities:

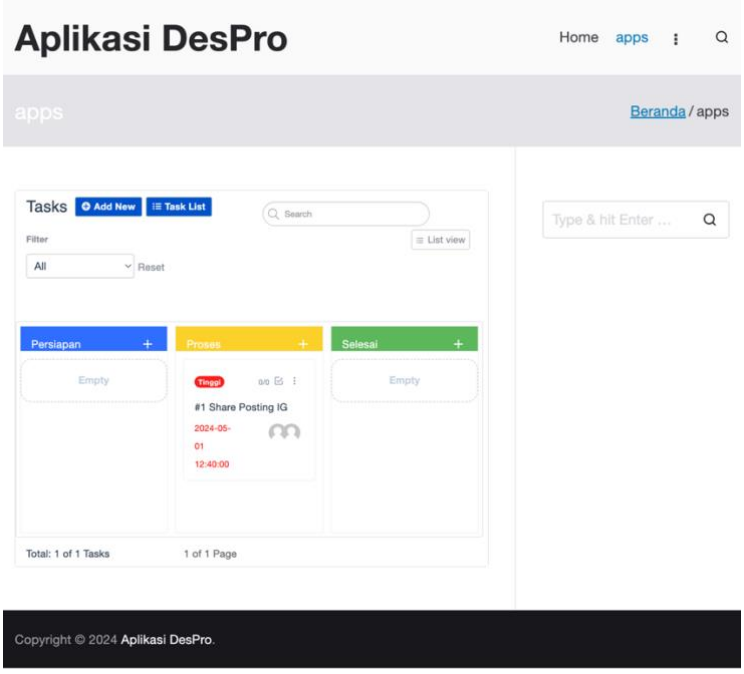

Figure 3. Dashboard Functionality

User Activity Overview: Provides comprehensive account activity summary, Centralizes access to key application features and Enables quick navigation and task management

Key Dashboard Features: Notifications and message center, Profile and preference management, Content upload capabilities and Transaction history tracking

D. Task Management System

The task management interface demonstrated advanced collaboration and productivity features:

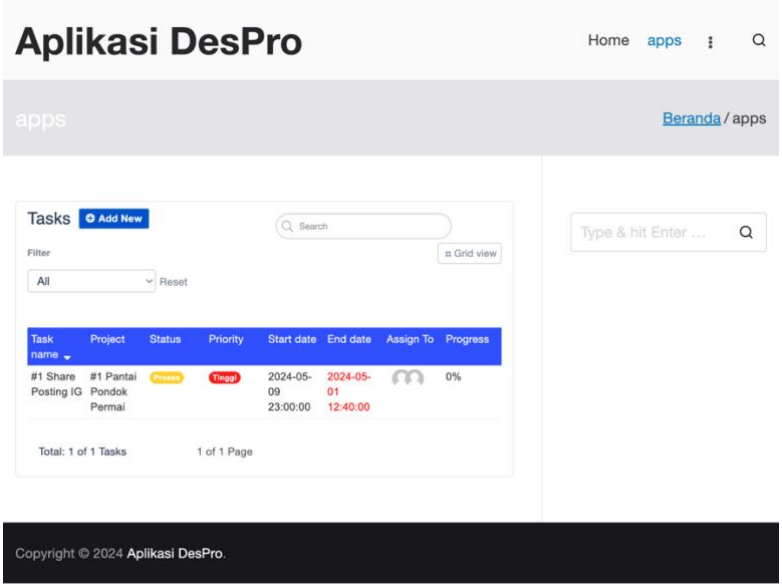

Figure 4. Task Management Page

Task Creation and Tracking: Comprehensive task creation and monitoring capabilities, Flexible task assignment and collaboration mechanisms and Advanced deadline and priority management

Collaborative Tools: Team task assignment functionality, Document and file attachment options, Notification and reminder systems and Analytics for task productivity

E. Crowdsourcing Effectiveness Assessment

Empirical analysis of the application's design revealed several key crowdsourcing implementation strategies:

- User Participation Mechanisms, Lowered barriers to content creation, Incentivized contribution through leaderboard and recognition systems and Flexible content submission processes
- Content Verification and Moderation, Implemented robust verification mechanisms, Ensured quality and reliability of user-generated content and Maintained platform integrity through systematic moderation

4. CONCLUSION

The DesPro application represents an innovative approach to village promotion through crowdsourcing, addressing critical challenges in digital community engagement and local resource marketing. By leveraging collaborative technologies, the application creates a dynamic platform that empowers users to actively contribute to and explore village potential.

Key research findings demonstrate the application's effectiveness in:

- Facilitating user-generated content about village resources
- Providing an intuitive, accessible interface for community participation
- Implementing robust verification and moderation mechanisms
- Creating competitive engagement through leaderboard and recognition systems

The research contributes significantly to understanding how digital platforms can transform local promotion strategies. By integrating crowdsourcing methods, DesPro not only showcases village potential but also fosters community involvement and economic development.
Future research directions include:

- Expanding platform functionality
- Enhancing user experience
- Developing more sophisticated content recommendation algorithms
- Exploring broader applications in rural digital transformation

Practical implications suggest that collaborative digital platforms like DesPro can be powerful tools for local communities to overcome traditional marketing limitations, create engaging narratives, and attract broader interest in regional resources.

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