

DEVELOPMENT OF ANDROID-BASED DIGITAL LOCAL TOURISM MANAGEMENT SYSTEM (DLTMS): TOURISM MARKETING STRATEGY IN DOMPU REGENCY

Yeye Suhaety¹

Sekolah Tinggi Ilmu Ekonomi Yapis, Dompu, Indonesia
yeyen.suhaety@gmail.com

Nurul Hayat²

Sekolah Tinggi Ilmu Ekonomi Yapis, Dompu, Indonesia
nurulhayat2015@yahoo.com



Abstract

This research aims to develop a mobile-based Digital Local Tourism Management System (DLTMS) platform as a means to introduce and make it easier for tourists to find tourist destinations in Dompu Regency. The application with the name Pasaka displays several natural, cultural, and culinary attractions, namely: Lakey Beach, Satonda Island, Pacoa Jara, Rimpu Festival, Cera Labu, and other tourist destinations in Dompu Regency. This application has interesting features such as a description of cultural tourist attractions, culinary tourism, regional superior products, and regional cultural events throughout the year. This research uses a Research and Development (R&D) approach. Research and Development (R&D) is research used to produce a specific product. The researcher focuses on an application as well as a guide to Android-based tourism objects that every user will use. The results of the image display on this application are clear and not broken and complete with the caption of the written image. This application is very useful for tourists who want to visit. Therefore, the Pasaka application can help make it easier for them to find out the location of tourist attractions and a marketing strategy to promote tourism destinations in Dompu Regency.

Keywords: Digital Local Tourism Management System, Mobile Android, Research and Development, Marketing Strategy, Tourism

INTRODUCTION

Dompu Regency has a wealth of diverse natural and cultural tourism. However, it still faces problems in development, especially in terms of adequate marketing strategies. As one of the sectors that has great potential to improve the economy of a region, tourism in Dompu Regency must be managed properly. Tourism is important in attracting tourists to the area (Amanda, 2021). Although the tourism potential in the area is quite large, without an effective marketing strategy, this potential can be ignored (Yani & Triadinda, 2022). Therefore, it is important to discuss tourism marketing strategies to increase public promotion and understanding of the natural and cultural wealth owned by Dompu Regency. Adopting technologies such as the Digital Local Tourism Management System (DLTMS) based on Android mobile will enable tourism managers to be more effective in promoting tourist destinations and cultural events, as well as disseminating information to potential tourists. This will help raise the image of Dompu Regency as an attractive tourist destination. So, it is not wrong to say that developing a digital local tourism management system (DLTMS) based on mobile android is a significant innovation in supporting the tourism industry (Wahyuni, Lasmawan, & Suastika, 2023), especially in Dompu Regency.

The urgency of this problem is the existence of a solution in the form of a marketing strategy that offers advantages in promoting local cultural wealth as a unique and different tourist attraction (Guntar, Prami, Sembiring, & Wijana, 2023). In addition, the development of Android mobile-based DLTMS will provide benefits in improving information accessibility, enabling personalization of travel experiences, and providing an interactive platform to communicate with tourists (Aldino, 2021). The two complement each other by providing comprehensive support in introducing and promoting tourism destinations (Perdana, Putra, & Rusmawan, 2023). The advantage of the development of Android-based DLTMS is that it makes it easier for tourists to find information about tourist destinations in Dompu Regency. The benefit is to increase the number of tourists visiting Dompu Regency and improve the regional economy. The compatibility between DLTMS development and marketing strategies is that they are mutually supportive of increasing the number of tourists (Stefvany, Afdhal, & Wiraseptya, 2022).

By paying attention to the complexity of the tourism industry and the global challenges it faces, the combination of tourism marketing strategies and the development of Android-based DLTMS is a progressive step in increasing the competitiveness of tourism destinations. Thus, this will be in line with the purpose of this research, namely the development of a mobile-based Android-based Digital Local Tourism Management System (DLTMS) platform as a means to promote tourism in Dompu Regency and formulate the right marketing strategy to increase the number of tourists (Primadewi *et al.*, 2020). By utilizing digital technology and strengthening promotion, it is hoped that the tourism potential of Dompu Regency can be better known, enjoyed, and preserved by local communities and tourists from various parts of the world.

Based on the description above, the formulation of the problem in this research is: How to create and design an android-based Digital Local Tourism Management System (DLTMS) application as a form of tourism management and marketing system in Dompu Regency so that it is more accessible to the wider community. This is because no tourism management system in Dompu Regency utilizes technology as information management that provides convenience for tourists who want to visit Dompu Regency

REVIEW OF LITERATURE

Digital Tourism

Digital tourism or tourism is an integration between ICT (Information & Communication Technology) development using the tourism industry. The concept of digital tourism in question is the use of information & communication technology to increase the usefulness of the tourism sector, provide a lot of tourism services to customers, and make the implementation of tourism marketing more accessible in the form of Telematics. Overview and Basic concepts of digital tourism in Indonesia is a new form of concept and still hasn't gotten the attention of various parties and tourism actors. Digital tourism is still seen as a system development section that still needs to be studied further on the function and benefits that will be obtained. Although other parties in tourism development emphasis the use of the Internet as a medium of promotion and dissemination. The information is very extensive, but this is not accompanied by internet applications as a tool for disseminating information about

tourism and its tourist destinations by each region.

In essence, the Internet has an inseparable role in technological development, especially tourism. The Internet provides a solution that offers convenience for tourism development in Indonesia. Through the internet, many things can be accessed easily, and used by most people in the world, so that information related to tourism development can be it is also easily accessible when, where, and by anybody. The use of the Internet in Indonesia has now spread throughout Indonesia. The communication carried out has entered the rural area. One of the supporting technologies is the use of mobile phones as a means of communication. So, the relationship between the internet and mobile phones as a means of communication is very large to be developed in an application model that is beneficial to all people and industries.

Marketing Strategy

Marketing strategy is a very important strategy for businesses and the organization to achieve success. This is done to provide more value for customers. According to Kotler, marketing strategy is a marketing mindset that will be utilized to achieve marketing goals, where there is a detailed strategy consisting of the target market, positioning, marketing mix, and budget for marketing. Furthermore, this is an effort to market a product (goods or services) using certain patterns, plans, and tactics to improve marketing performance, including sales performance. The definition of marketing strategy can also be interpreted as a series of efforts made by a company to achieve certain goals. Marketing strategy has a role in a company or business because it serves to determine the economic value of the company. Marketing strategy is basic tools and marketing programs designed to achieve the company's goals by developing a competitive advantage.

RESEARCH METHOD

This research uses a Research and Development (R&D) approach. Research and Development (R&D) is research used to produce a specific product and test the effectiveness of that product (Yulianto & Kumalaningrum, 2020). In this study, Research and Development (R&D) is used to develop a digital local tourism management system

(DLTMS) based on mobile android and test its effectiveness as a cultural tourism marketing strategy in Dompu Regency.

In Figure 1, you can see the concept of developing a tourism management system in Dompu Regency which is divided into several stages in this study.

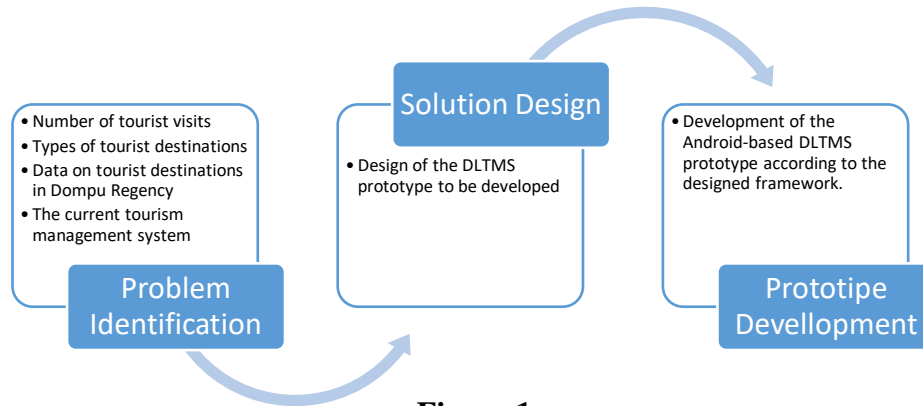


Figure 1
Research Stages

The stages in the development of the Digital Local Tourism Management System (DLTMS) of Dompu Regency, consist of:

1. Planning

- a. Identify current problems and analyze the tourism situation in Dompu district
- b. Making a data collection schedule for tourist destinations in Dompu Regency with supporting facilities and infrastructure

2. Analysis

- a. Collecting information about tourist destinations and their supporting infrastructure, then creating a profile of tourist destinations in Dompu district.
- b. Conducting an analysis of existing tourism management concepts and those that will be developed with digital systems

3. Planning

- a. Creating tourism management design and design with flowcharts of existing and future tourism management systems
- b. Designing a database used in tourism management that can be accessed via the internet
- c. Design of DLTMS prototype to be developed

4. Development

- a. The development of a prototype of DLTMS based on mobile Android is in accordance with the design that has been prepared.
- b. Android app creation
- c. Entering data of tourist destinations in Dompu Regency

Digital Local Tourism Management System (DLTMS) Design

Through the Digital Local Tourism Management System (DLTMS), tourism will be managed using a new management concept that has utilized information technology and the internet as a form of marketing strategy for tourist destinations in Dompu Regency. DLTMS is built using the Java programming language and Kawa Scheme.

System Specification: 1) Data and information are stored digitally and available online in DLTMS for efficient data management; 2) To access information and use DLTMS, an online database connected to the internet is created; 3) The DLTMS architecture can be seen in Figure 2 which allows users to access Dompu Regency tourism information via Android.

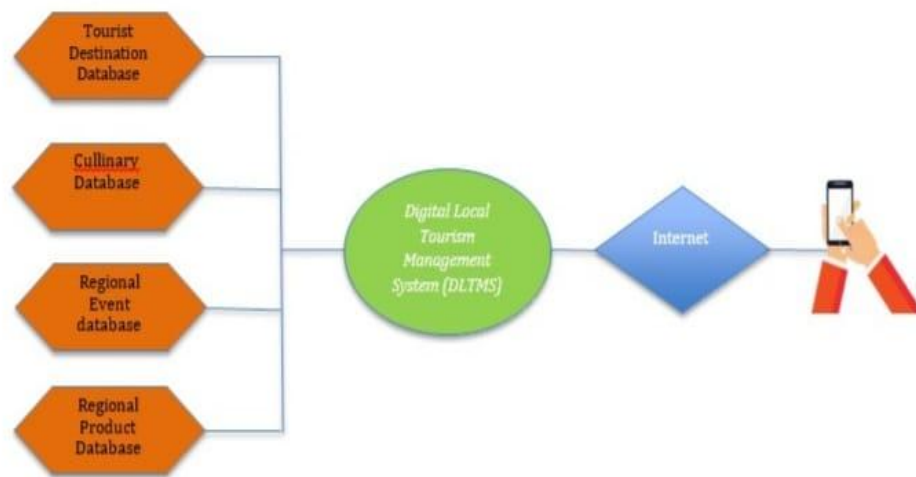


Figure 2
The DLTMS Architecture

RESULTS AND DISCUSSION

DLTMS System Development Results

This research resulted in a application of an Android-based local tourism management system called Digital Local Tourism Management System (DLTMS). The main features of the DLTMS application named PASAKA include: **a) Tourist Destination Profile:** Provides complete information about natural and cultural tourist destinations in Dompu Regency, including location, description, photos, and reviews; **b) Event Calendar:** Displays cultural agendas, festivals, and tourist activities; **c) Products (Digital MSME Showcase):** Promotion of superior local products such as typical foods, handicrafts, and souvenirs.

In Figure 3, you can see the home page of the application that the researcher created, with the name Pasaka, where there are menu features in the application.

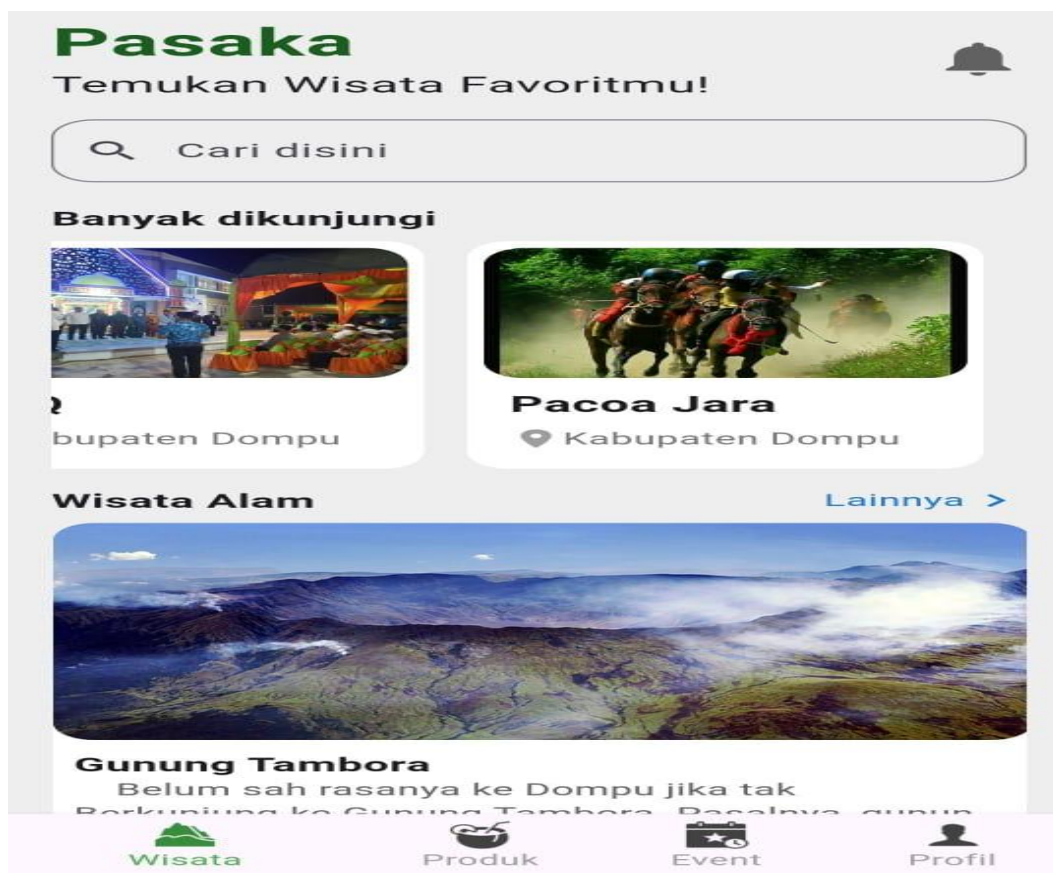


Figure 3
Home Page View

Figure 4 shows what natural tourism destinations are in Dompu Regency.



Figure 4
List of Natural Tourism Destination



Figure 5
List of Cultural Tourism Destination

In figure 5, you can see several cultural tours that have been carried out by the people in Dompu Regency for generations, and the most popular is pacoa jara (horse racing).

The system test was carried out using the black-box testing method and user acceptance test (UAT) on 30 users, consisting of MSME actors, local tourists, and officers of the Dompu Regency Tourism Office. The results show that: a) 86.7% of users stated that the app interface was easy to use; b) 90% feel the destination information displayed is relevant and useful; c) 83.3% of MSME actors are interested in using the local product showcase feature as a means of promotion.

DLTMS-Based Tourism Marketing Strategy

Based on the implementation of the system and the results of field trials, it was found that several relevant tourism marketing strategies were integrated through the DLTMS platform: a) **Digital Destination Branding**. DLTMS is a digital branding channel for Dompu tourist destinations that was previously not widely known. The existence of visual and descriptive content in the application strengthens the image of the destination, especially for nature-based tourism such as Mount Tambora, Doro Ncanga Savanna, Lakey Beach, and Woko Waterfall; b) **MSME Empowerment and Cross-Sector Collaboration**. The digital showcase feature in the application opens up opportunities for promotion and collaboration between MSMEs, destination managers, and the government. This strengthens the digital tourism ecosystem in an inclusive manner; c) **Collection and Analysis of Traveller Data**. The system is equipped with a mechanism for tracking user preferences and the most visited destinations. This data is the initial foundation in the formulation of data-driven marketing strategies, such as personalization promotions, mapping tourist needs, and market segmentation.

Discussion

The results of the study show that the development of an Android-based tourism management system is able to accelerate the digitalization of the tourism sector in the regions. The DLTMS application functions not only as an information medium, but also as a strategic promotional tool, a collaborative platform, and an educational means for local tourism actors. In the context of Dompu Regency, which has been facing challenges in tourism promotion, limited access to technology, and lack of integration between industry players, the presence of DLTMS has the potential to become an applicative and sustainable technology-based solution. This is in line with the concept of the smart tourism ecosystem which emphasizes the importance of digitalization, community participation, and the use of data as a basis for decision-making (Gretzel et al., 2015).

However, to ensure the sustainability of the use of DLTMS, regulatory and policy support from local governments is needed, continuous training for tourism MSME actors, and application integration with national promotion systems such as Indonesia.Travel. It is also necessary to consider the monetization strategy and technical maintenance of the application so that it does not stop as a short-term project.

CONCLUSION

This research succeeded in developing an Android-based local tourism management system (DLTMS), named Pasaka. This system is designed as an integrated platform to support tourism marketing in Dompu Regency, by integrating various digital features such as destination information, event calendars and digital store fronts of Micro Small Medium and Medium Enterprises (MSME) products.

Testing of the DLTMS application shows that this system is considered functional, easy to use, and has great potential to support the promotion and management of digital-based tourism. Most users expressed satisfaction with the features available, especially in terms of destination information and ease of navigation.

From the perspective of marketing strategy, DLTMS not only acts as a digital promotional medium, but also as a liaison between local tourism actors, the government, and tourists. This application opens up opportunities to implement a data-driven marketing approach, strengthen destination branding, increase MSME engagement, and utilize social media as a broader and more effective promotional tool.

DLTMS can be a strategic technological innovation in accelerating the digital transformation of the tourism sector in Dompu. However, the long-term success of this system is highly dependent on cross-sector collaboration, human resource readiness, and the commitment of local governments in supporting the digitalization of tourism in a sustainable manner.

REFERENCES

- Aldino, I. (2021). Digital Marketing Strategy for Culture-Based Tourism of the Surakarta City Government (Case Study of Batik Solo TV on Instagram). *Journal of Art Governance*, 7(1). <https://doi.org/10.24821/jtks.v7i1.5350>
- Dini Yani, & Dexi Triadinda. (2022). A Study of Digital Marketing Strategies in an Effort to Increase the Attractiveness of Culinary Tourism: A Review of Gonze Cianjur MSMEs in West Java in the New Normal Era. *Journal of Management & Creative Business*, 8(1). <https://doi.org/10.36805/manajemen.v8i1.2961>
- Guntar, E. L., Prami, A. A. I. N. D., Sembiring, E., & Wijana, P. A. (2023). Community Service & Implementation of Independent Campus-Based Courses in Taro Village. *Journal of Community Service*, 3(1). <https://doi.org/10.22334/jam.v3i1.36>

- Perdana, M. A., Putra, A. P., & Rusmawan, P. N. (2023). Improvement of Cultural Tourism Promotion Strategy for Traditional Culinary Event Festival in Pondoknongko Village, Banyuwangi Regency, East Java Province. *Journal of Indonesian Community Service*, 3(1). <https://doi.org/10.54082/jamsi.638>
- Primadewi, A., Anwar, T. M., Yustin, Y., Sani, A. H., & Fauzi, M. (2020). Strengthening the Marketing of Ashfa Madu Borobudur MSME Products through Product Branding Strategy. *Journal of Community Service*, 26(3). <https://doi.org/10.24114/jpkm.v26i3.17683>
- Siti Rizky Amanda. (2022). Digital Marketing Marketing Strategy to Increase the Number of Sales of Lombok Tour Packages. *Journal of Mandalika Review*, 1(1). <https://doi.org/10.55701/mandalika.v1i1.4>
- Stefvany, S., Afdhal, V. E., & Wiraseptya, T. (2022). Digital Marketing Training as a Promotion and Publication Strategy for the Rimbo Tarok Traditional Village. *New Minds*, 6(2). <https://doi.org/10.33373/jmb.v6i2.4422>
- Wahyuni, L. T. S., Lasmawan, I. W., & Suastika, I. N. (2023). Digital Marketing Strategy for Cempaga Village Tourism and Culture Places Through Digital Platforms. *Journal of Science and Humanities Research and Development*, 6(3). <https://doi.org/10.23887/jppsh.v6i3.53530>
- Yulianto, A., & Kumalaningrum, A. (2020). Potential for the development of Umbul Pluneng tourist destination in Klaten Regency, Central Java. *Khasanah Ilmu - Journal of Tourism and Culture*, 11(1)
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. *Electronic Markets*, 25(3), 179–188. <https://doi.org/10.1007/s12525-015-0196-8>