



Interactive Infotainment Map Design as a Tourism Guide for Kampung Eco Taman Sari

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ABSTRACT

The development of digital technology has opened new opportunities in the advancement of tourism information media, particularly in the form of interactive maps. This study aims to design and develop an interactive infotainment map as a tourism guide for Kampung Eco Taman Sari, located in Pringsewu, Lampung. The design method was carried out through direct observation and interviews with the site management. The map adopts a nature-inspired theme with a 2D visual style and a horizontal layout that displays various numbered interactive icons such as fishing areas, paddle boat rides, swimming pools, photo spots, and other facilities. The design process began with manual sketching, followed by digitalization using design software, and the creation of an interactive prototype using Figma based on user interface (UI) and user experience (UX) design approaches. The resulting design features interactive elements such as icons, nature-themed color palettes, and a click-based navigation system that is easy for users to understand. This map is designed to be accessible through digital devices with a user-friendly interface, supporting efficient and enjoyable exploration. The final result is an informative digital map, the interactive infotainment map, which is expected to enhance the overall visitor experience while strengthening Eco Taman Sari's image as a leading ecotourism destination in Lampung.

1. Introduction

Tourism plays a significant role in supporting economic growth and community welfare. As time progresses, tourism concepts continue to evolve, one of which is *ecotourism*. Ecotourism focuses on natural preservation, cultural appreciation, and community welfare while maintaining environmental balance. Indonesia, rich in biodiversity, holds vast potential for developing sustainable tourism based on this concept.

However, many ecotourism destinations still face challenges in information accessibility and visitor navigation. Kampung Eco Taman Sari in Pringsewu, Lampung, established in 2020, represents one of the region's promising ecotourism areas. It offers attractions such as flower gardens, fishing ponds, paddle-boat rides, swimming pools, photo spots, and camping areas. Despite its growing popularity, visitor access to information about these facilities remains limited and primarily relies on conventional signage.

To address this, an *Interactive Infotainment Map* is proposed as a digital medium combining information and entertainment. This interactive map aims to provide an engaging way for visitors to explore the area virtually and obtain relevant information efficiently. By integrating digital design principles and UX-based interactivity, the infotainment map becomes not only a navigation aid but also a promotional medium supporting Eco Taman Sari's identity as an environmentally friendly tourist destination.

The objectives of this study are:

1. To design an interactive infotainment map that presents tourism information attractively and accessibly.
2. To provide an efficient, user-friendly digital interface for Eco Taman Sari visitors.
3. To enhance visitor experience and strengthen the destination's visual identity through technology-based communication design.

2. Method

2.1 Research Design

This research adopts a **qualitative descriptive design** to explore the communication needs of Eco Taman Sari's visitors and to develop an interactive infotainment map suited to those needs. The study employed observation, interviews, and questionnaires as data-collection methods. Observation focused on visitor navigation patterns, facility layouts, and environmental characteristics. Interviews with site management provided information on operational challenges and promotional needs, while questionnaires gathered visitor feedback regarding accessibility and satisfaction levels.

The design process followed three main stages: **pre-design, design, and evaluation.**

1. Pre-design: data collection, user analysis, and concept formulation.
2. Design: visual creation through sketching, digitalization in Adobe Illustrator, and prototype interactivity built in Figma.
3. Evaluation: usability testing via pre-test and post-test involving actual visitors to measure improvement in information comprehension and satisfaction.



Figure 1. Mind Mapping

2.2 Data Collection Technique

Three main techniques were used to collect the data: **observation**, **interviews**, and **questionnaires**.

1. Observation – Conducted directly at Kampung Eco Taman Sari to study the physical layout, visitor flow, and facility distribution. Observations also documented the signage systems, visitor navigation habits, and areas that frequently caused confusion. These findings were crucial for determining key points to highlight in the interactive map.
2. Interviews – Held with the site manager, Mr. Sarno, and several staff members to gather insights about operational management, information needs, and promotional challenges. Interviews revealed that visitors often requested clearer visual guidance and digital information about attractions and facilities.

2.3 Data Analysis

5W + 1H framework (What, Who, Where, When, Why, How) was applied to define the map's function and target users. The main goal (*What*) was to create a digital map serving as an informative and entertaining guide. The *Who* consisted of general visitors—families, students, and local tourists. The *Where* referred to the Eco Taman Sari area; *When* concerned post-pandemic tourism recovery; *Why* emphasized the need for structured information access; and *How* involved UI/UX-based visual mapping with interactive icons.

3. Results and Discussion

3.1 Design Process Stages

The process of designing the Interactive Infotainment Map of Kampung Eco Taman Sari was carried out through four systematic stages: sketching, digitalization, interaction, and final artwork. Each stage aimed to transform conceptual ideas into a user-centered, visually engaging, and technically functional design.

3.2 Sketching

The sketching stage served as the foundation for the overall visualization. At this stage, the designer created initial hand-drawn sketches on paper to map out the spatial layout of Eco Taman Sari. Mind mapping techniques were also used to structure the information hierarchy — determining which elements would appear as clickable icons and which as supporting labels.

The purpose of this stage was to visualize spatial proportions, navigation flow, and user perspective before moving to the digital phase. The rough sketches guided decisions on placement, balance, and directional cues to ensure an intuitive navigation experience.

The sketching process also included the creation of a wireframe, which outlined interface zones such as the title area, icon placements, navigation buttons, and information boxes. Sketches allowed rapid idea iteration without technical constraints, supporting creativity and visual experimentation.

This process ensured that the final design would be grounded in spatial logic and aesthetic coherence while remaining intuitive for users of different age groups.



Figure 2. Sketching

3.3 Digitalization

After completing manual sketches, the next step was digitalization. The analog drafts were converted into vector-based illustrations using Adobe Illustrator. This stage emphasized clean line work, proportion accuracy, and scalability to ensure the design-maintained clarity across different screen sizes.

Color palettes inspired by nature were applied — green for vegetation, blue for water elements, and brown for land or pathways. Typography such as League Spartan (for titles) and Bree Serif (for descriptions) was integrated to maintain visual harmony. Through digitalization, the initial concept evolved into a refined visual representation ready for interactive implementation.

This stage emphasized the visual identity of Eco Taman Sari — simple, natural, and family-friendly — while maintaining a professional and consistent design system. The digital map was designed with consideration of accessibility standards, ensuring that colors, contrasts, and text sizes remained legible for all users, including those with limited visual perception.



Figure 3. Digitalization

3.4 Interaction

The interaction stage was the core of the infotainment map design. Using Figma, interactive components were applied to transform static visuals into a dynamic and user-responsive interface.

Clickable icons were assigned to specific facility markers, allowing users to access pop-up information containing text and images. Hover and transition effects were added to simulate real-time navigation, giving users the sense of “exploring” the site virtually.

At this stage, UI (User Interface) and UX (User Experience) principles were integrated to ensure that each interaction was logical, smooth, and easy to operate, especially for first-time users.

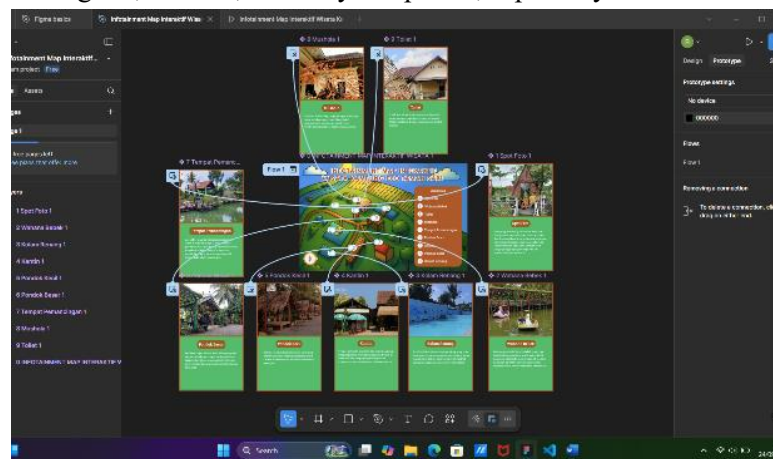


Figure 4. Interaction

3.5 Final Artwork

The final artwork stage represents the culmination of the entire design process — transforming all visual and interactive components into a cohesive, functional digital product. At this stage, the interactive infotainment map was finalized based on evaluation results and user testing feedback.

Several refinements were made to improve usability and aesthetics, including adjustments to icon alignment, typography size, and color contrast to ensure readability on various digital devices. The final design incorporated all elements consistently — the main map, interactive icons, navigation menus, and informational pop-ups — forming a visually balanced and user-friendly interface.

The final map displays a horizontal orientation, optimized for both desktop and mobile viewing, featuring a clean layout and nature-inspired color palette. The interactive features, such as clickable hotspots and smooth page transitions, provide users with an intuitive navigation experience similar to exploring the actual Eco Taman Sari site.

In this stage, all files were exported and documented in high resolution and prototype format to ensure their readiness for publication or web integration. The completed interactive infotainment map successfully combines functionality, aesthetics, and information delivery — serving as both a digital guide and promotional medium for Kampung Eco Taman Sari.

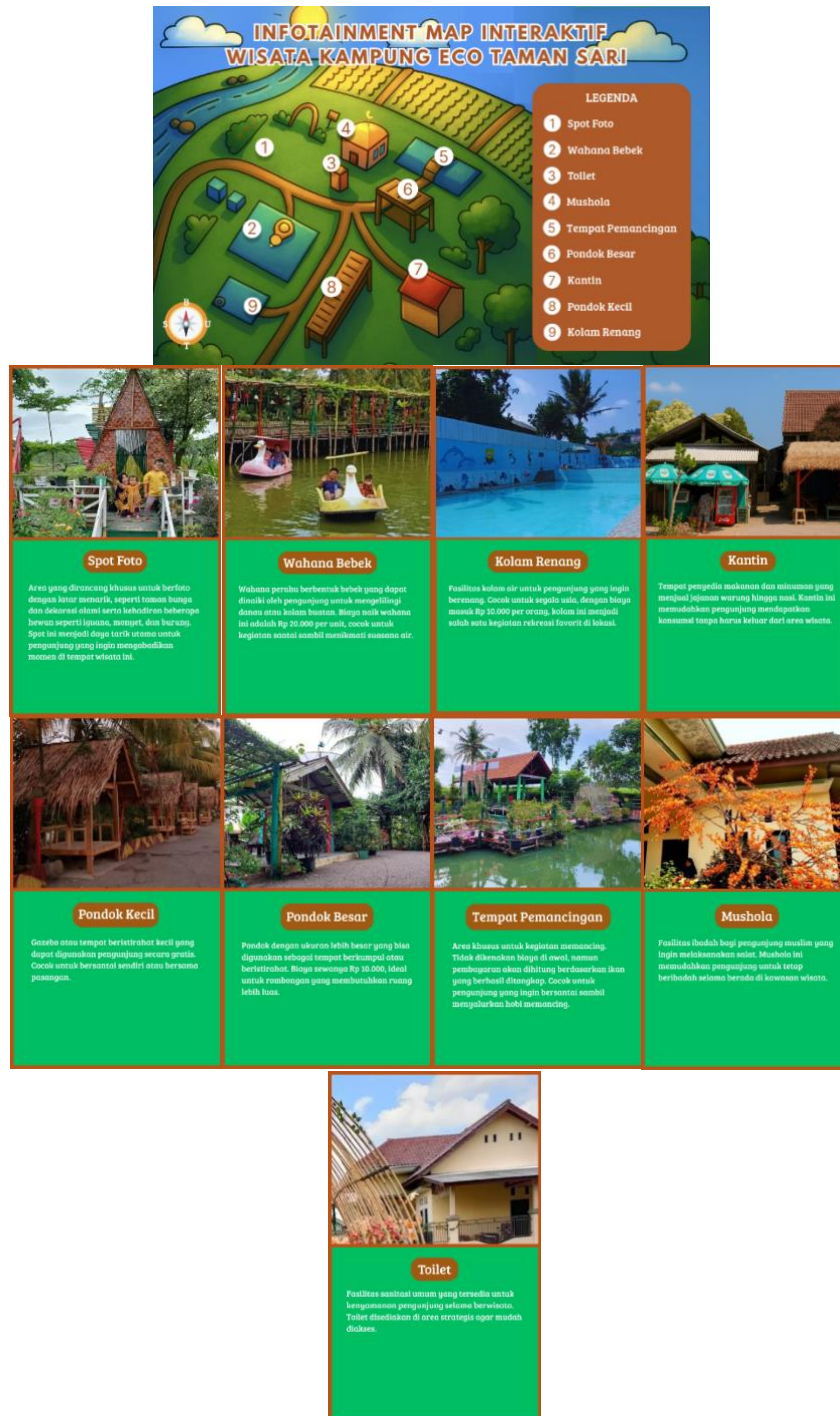


Figure 5. Final Artwork

3.6 Evaluation Result

Pre-test and post-test analyses revealed significant improvements after visitors used the interactive map:

Table 1. Evaluation Result

No.	Aspect	Before Use (%)	After Use (%)
1.	Location Understanding	60	90
2.	Information Accessibility	70	88
3.	Navigation Efficiency	55	85
4.	Visitor Satisfaction	58	92

3.7 Discussion

The findings demonstrate that an infotainment-based approach to map design offers significant advantages over traditional printed maps. The integration of information and entertainment (infotainment) keeps users engaged longer while improving comprehension through interactive exploration.

The integration of infotainment—a balance of information and entertainment—successfully attracted user attention and maintained engagement. Applying UI/UX principles ensured the design was intuitive, while the use of color psychology reinforced emotional connection to the natural environment.

Furthermore, the results show that interactivity directly influences user satisfaction and retention. Post-test data revealed increased understanding and enthusiasm among visitors after using the map. This reinforces the notion that interactive design can serve as a learning and orientation tool, especially for new visitors unfamiliar with the physical layout of a destination.

From a broader design perspective, this project highlights the importance of combining visual communication, usability testing, and technology adoption in ecotourism promotion. The interactive infotainment map successfully positions Kampung Eco Taman Sari as a pioneer of digital innovation in local tourism promotion, setting an example for similar destinations in the future.

4. Conclusions

The Interactive Infotainment Map successfully functions as an innovative digital medium that simplifies navigation, delivers information clearly, and enhances the visitor experience at Kampung Eco Taman Sari. By implementing UI/UX-based interaction, appealing visuals, and eco-themed design, the map encourages engagement and understanding of the site's attractions.

The study confirms that combining UI/UX design principles with an infotainment approach enhances user comprehension, engagement, and satisfaction. The map facilitates easier access to tourist information, simplifies navigation, and creates a positive visitor experience that aligns with the destination's eco-friendly image.

The results show increased efficiency, satisfaction, and awareness of facilities, proving that interactive infotainment media can effectively support tourism communication. Future implementations are recommended for broader ecotourism destinations to promote digital transformation and environmental education through design.

In conclusion, the development of this interactive infotainment map demonstrates that digital communication design can play a pivotal role in sustainable tourism promotion. Future research can expand this work by integrating real-time navigation, augmented reality (AR) features, or mobile-based versions to reach a broader audience and further enrich the ecotourism experience.

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