

Conference Paper

Designing a Smartphone Application for Religious Tourism in Sukoharjo, Malang, Indonesia

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Abstract

Many potential tourism spots have been recently developed all over Malang, Indonesia. It all started from a university student's project that transformed the packed living area of the colorful village of Jodipan (Kampung Warna Warni Jodipan) into a tourism destination. After this successful metamorphosis, the nearby villages started to develop their thematic villages. For example, across the bridge from Jodipan there is Kampung 3D and across the railroad track is Kampung Biru Arema. Near these places, there is Sukoharjo sub-district which is longing to do the same. One of the potential attractions on Sukoharjo is Haul Akbar Pondok Pesantren Darul Hadits Al-Faqihiyah (the annual celebration of the Islamic boarding school Darul Hadits Al-Faqihiyah), which is a pillar of religious tourism in Malang. This project explored a smartphone application design that would bring tourists to Sukoharjo. The design and development involved adapting prototype SDLC models to quickly involve the audience in the process. The prototype is expected to be used in a pilot project that further employs the development features of the smartphone application.

Keywords: Smartphone application, potential tourism spots, prototype SLDC models

1. Introduction

Malang, Indonesia, is located in a plateau known for various tourism destinations, from nature tourism to cultural tourism. Recently, Malang has developed its tourism towards urban tourism with several potentials, such as culinary, religious, and City tours. It all started with one of the university student's projects that turned the slum area into a beautiful colorful village. Because of its iconic colors, the village became popular and flocked by the tourist. People come to Kampung Warna Warni Jodipan (Colorful Village of Jodipan) to stroll and take pictures while eating the local culinary. The beautiful metamorphosis of Jodipan changes people who live there for better living health, social, and economy.

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This phenomenon has made several nearby places started developing their thematic village. The village across the bridge from Kampung Warna Warni now become Kampung 3D (3D Village). Also, across the railroad track, the village becomes Kampung Biru Arema (Blue Village of Arema) [1]. Not far from those places, there is Sukoharjo sub-district that longing to do the same. The headman of Sukoharjo said that there are two main attractions of Sukoharjo, firstly is Kampung Santri and Patriotik (Santri and Patriotic Village), and secondly is religious tourism. Annually, Sukoharjo packed by Santri from all over Indonesia because they want to celebrate the annual celebration of Islamic boarding school Darul Hadits Al-Faqihyyah (Haul Akbar Pondok Pesantren Darul Hadits Al-Faqihyyah).

Sukoharjo people try to capture a large number of visits from outside of the City is an opportunity to develop their sub-district. With the approval of the Municipality of Malang City, Sukoharjo will become a sub-district that specializes in Religious tourism starting in 2021. Religious tourism will be developed in three sub-districts with religious thematic events; these villages are Sukoharjo Village, Kidul Dalem Village, and Kasin Village. However, the sub-district office has no special preparation as preliminary steps to become a host of one of the religious tourism in Malang City.

Like any other tourism industry, Sukoharjo needs media that provide rich information and communication technology to map its potentials. We propose a smart tourism system to that problem. Smart tourism is bound to bring profound changes in the entire tourism industry with application, integration, and innovation, which will provide effective resource sharing and using [2]. As Indonesia became the fourth largest smartphone user globally [3], we believe that smartphone use will be beneficial for the development of Sukoharjo village. This project will explore the design and development of smartphone apps that will help map the tourism potential of Sukoharjo.

2. Potential Tourism in Sukoharjo

Sukoharjo is a sub-district located in Klojen District, Malang City, Indonesia. The sub-district has 54.74 km² and is located at an altitude of 444 meters above sea level [4]. Like any other village in Malang city sub-district, Sukoharjo has a very dense population. Despite the crowd, people live in harmony. We can see that the sub-district is living religiously just by looking at the atmosphere there. Although it has many mosques because most people who live in Sukoharjo is Muslim, we can also spot churches and vihara in the area. Pondok Pesantren Darul Hadist Al-Faqihyyah is a famous Islamic boarding school established in 1945 in Sukoharjo.

One of the most prominent religious events in Malang City held by Pondok Pesantren Darul Hadits Al-Faqihyyah is Haul Akbar. The haul is an annual celebration of the day of the Muslim Imam died. There are series of events in the day, recitation of Qur'an verse, khutbah (sermon), istighasa (praying for help to the God), Halaqa (gathering), reminiscing of the past and storytelling, and ziarah (visiting the tomb of the Imam). The latest event was held in February 2020, attended by hundreds of thousands of Santri from all over the country [5]. On the day of the event, many roads leading towards the city square were closed for the grand stage of the ceremony.

Moreover, there was several potential tourism such as the Santri Village, the mural wall of Martadinata, the Chinese town, and the Tough Village. In the Santri Village, we can see the Santri way of living in the neighborhood. Santri is a Muslim practitioner in the study. They usually dressed in white overall with a white cap on the head. Secondly, the mural wall of Martadinata tells a story about the heroic act of a patriot. Thirdly, the Chinese town of Sukoharjo is a complex trading center with Chinese architecture from the Colonial era. This area was the center of cultural assimilation of the Chinese, Colonial, and Local [6]. Furthermore, the Tough Village is a village that set an example to fight the covid-19 pandemic. They are the first village in the Sukoharjo sub-district that implement health and safety protocol at the time of the pandemic. To accommodate the new information about the tourism spots, we design an all in one tourism smartphone apps.

3. Tourism Smartphone Application

Nowadays, smartphones are a part of the tourism experience. A range of studies has assessed the effects of smartphone use at a tourism destination. Several studies suggest that smartphone use enhances tourist experience and satisfaction, especially in local tourism [7],[8]. Smartphone use can also attract visitors that already visit the place. These repeaters will want to explore more about the destination when the level of aesthetics on the smartphone is high [9]. Thus, using a smartphone to communicate about local potential tourism spots would be beneficial.

Nevertheless, tourists will assess the smartphone application based on three significant cues: performance expectancy, price saving orientation, and social influence [10]. We are considering to build a strong performance expectancy for the prototype in the initial phase. Without the working design, another feature will be useless. Smartphone tourism apps that offer valuable, reliable, and accurate information will contribute to increased tourist adoption of the apps. Moreover, Jarrar [11] suggests that apps that did

not ask for personal information will reduce users discomfort and convince potential users that the application is safe without any associated risk. It is essential to develop the app's performance according to the feedback from the users.

Adding a smartphone application to the tourist could considerably affect tourist exploration in spatial projection, their perception of time, and their level of attention to the information transmitted [12]. Integrating smartphone cameras will unlock new features such as the augmented reality that could enhance the visual experience in tourism landmarks ([13]; [14]. However, we considered that managing and sharing tourism spots is the best approach for this pilot project. To give more attention to the smartphone app's essential functions about tourism potential spots in Sukoharjo remaining primary cause for the project.

4. Methodology

We are adapting the prototype Software Development Life Cycle (SDLC) [15] to quickly create a smartphone application's mock-up and obtain user feedback to refine it. With the high level of user involvement in the project, we could create an app that works for them. The model can be seen in Figure 1. This paper only covers the design process of the smartphone application. We are conducting the initial requirements process on 2 September 2020 by interviewing the Headman and Secretary of the Sukoharjo sub-district. The Design and prototype process started on 23 September 2020, including designing the app's menu structure and user interface (UI).



Figure 1: Prototype SDLC Models

5. Result and Discussion

We know that they want their sub-district to be known globally from the interview with the Headman and Secretary of Sukoharjo sub-district. We conduct a simple google

search about the Sukoharjo sub-district with the keywords “sukoharjo; malang”, and the result is dissatisfying. They did not have a website dedicated to the profile of the sub-district or its legal service. This information became essential, especially in this time of the pandemic, to reduce crowds. We noticed that the people of Sukoharjo needs to present in the office if they require legal service. In the absence of the website, they also did not have a platform for local news of the area. The news platform might be necessary as locals have limited access to their community. It is ever crucial because they wished to develop a tourism village. Thus, we proposed a smartphone application design that will include The sub-district profile, news, and tourism.

We suggest a simple three menu structure for navigation of the smartphone application. The menu will be Profile, Home, and Tourism. Profile menu will include everything the audiences need for the office and legal business of the Sukoharjo sub-district. The home menu will include local news, and the Tourism menu will include information about the potential tourism spots in Sukoharjo. The menu structure can be seen in Figure 2. It is standard navigation that has three menu buttons. The audience will see the welcome screen first if the application is opened. Every page will be directed to either home or back to the previous sub-menu. Profile menu has six sub-menu, namely: Headman foreword, focus and purpose, organization structure, vision and mission, officer and staffs, also contact us. The home menu has three sub-menu, namely: news highlights, most viewed, and see all. The tourism menu has eight sub-menu, namely: All, hotels, Religious spots, traditional market, shopping center, Night market, Thematic villages, Martadinata’s Mural.

We used a material design approach for the smartphone app’s UI design because its flat elements and colors will boost contrast and legibility [16]. The layout using big picture to direct the attention of the audience. The menu button will be on the bottom of the screen to ease access. The audience can touch the buttons (as pictures or icons) to access more content information. On the news highlight sub-menu, we used a rating system that will help the rotation of the content. The three most rated content will be on the sub-menu news highlight. We used a red and white color combination to symbolize the passion and boldness of the tourism area. The UI design can be seen in Figure 3.

6. Conclusion

In this pilot project, we proposed a smartphone application prototype that can help tourists and residents know more about the potential tourism spots in Sukoharjo sub-district. The design of the tourism application also includes information regarding the

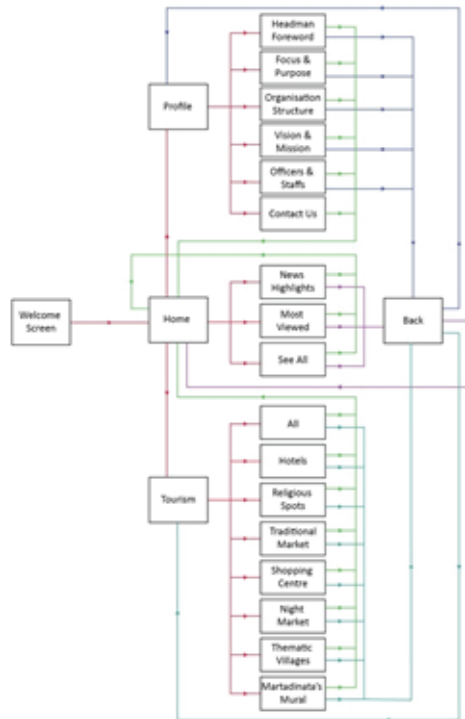


Figure 2: Sukoharjo tourism apps navigation menu



Figure 3: Sukoharjo tourism apps navigation menu

Sukoharjo sub-district office and local news platform. One of the next steps is to beta test the apps with different age ranges to see the audience’s preferences. We expect to include more features such as geolocation to pinpoint the tourism spots better and augmented reality to enhance the tourist experience while exploring the destination in further development.

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