

# Promotion Strategy of Tourism Marketing using Android and IOS-based E-Tourism Application in Dlingo District

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**Keywords:** Tourism promotion, Mobile application, Android and iOS, E-tourism

**Abstract:** Market limitedness still serves as a problem for the tourism developers in Dlingo. This research aims at developing the tourism potentials in Dlingo that are very interesting to promote. The data are obtained using surveys, interviews, and focus group discussions, as well as pictures of the tourism objects in 25 different locations. The analysis of the research result is conducted by making mobile application as the technique of digital tourism promotion. IOS and Android are mobile applications that are accessible both in Android smartphones like Samsung and in IOS smartphones like iPhone, and thus they will increase the number of tourist visits in Dlingo, Bantul, both for domestic and for international tourists. Furthermore, it is necessary that the information must be continuously updated via IOS and Android applications, and besides that, it is also necessary to build good cooperation with the travel agent and public as well as private institutions.

## 1 INTRODUCTION

Tourism has a huge potential to become the pillars in building the national economy. As stated by Lubis and Osman (2014), tourism is able to increase economic growth in Indonesia and other Asian countries. The tourism sector can create job opportunities and vacancies, improve income level, and support the equal income distribution of the society. The powerful and sustainable regional economic development is effective collaboration among the resources, society, and the government.

Dlingo district is one of the strategic and potential tourism sectors that can be managed, developed, and marketed. The tourism objects are favorite tourism objects with high attractions and its beautiful scenery. This interesting phenomenon is when Indonesia president, Mr. Joko Widodo (Hadi, 2018), and the former United States of America president, Mr. Barack Obama (Nursalikah, 2017), visited Puncak Becici and Pine Forest in Dlingo. It proves that the tourism objects in Dlingo district have strong potential and are very attractive so that it can serve as natural tourism assets in Bantul. However, up to now, Dlingo has not used the right marketing strategy to attract tourists to visit. Therefore, one of the ways to optimize the local resources to improve the tourist visit is by

developing tourism using the e-tourism concept. The marketer does not only fulfill the customers' needs so that they are satisfied. With the existence of digital technology such as the internet, consumers expect the companies to do more than just building a relationship with them, more than just satisfying them and more than just pleasing them. They expect companies to listen to them. (Kussujaniatun, 2011).

E-tourism is a tourism recommendation and tourism planning application to help the users in managing their trip and tourism agenda (Sebastia L, Garcia I, Onaindia E, Guzman C. 2009). This is also emphasized by Buhalis and Deimezi (2004), stating that e-tourism reflects the digitalization of all processes and the value chain in the industry of tourism, trip, hotel, and catering. The e-tourism application will be applied in the android and IOS-based system by using Geographic Information System program that is useful to map the tourism object destination so that the tourists get the complete information about the tourism objects. Furthermore, the tourists are able to identify various existing tourism objects so that in the future, the society, *pokdarwis* (tourism awareness group), and the government can arrange, direct, and promote the tourism objects that are not popular yet. Geographic Information System itself is a computer system that is able to capture, store, manipulate, analyze, and present the geographical data (Kang-Tsung Chang,

2002). Bernhadsen (2002) also suggests that this system is implemented into software and hardware in computers that have functions in data acquisition, data verification, data compilation, data storage, data change and update, data management and exchange, data manipulation, data calling and presentation as well as data analysis.

The Internet, as a global computer network in all over the world, can provide the information needed by the public and can be accessed everywhere. The benefit of information technology in tourism is to promote and to introduce tourism objects via websites and geography. The use of information technology is used to optimize in introducing the tourism objects in a region as a promotion media that can reach national and international tourists so that they know and visit the tourism objects, in this case, in Dlingo district. Therefore, the visualization of the internet-based tourism information system is one thing that needs to be conducted right now.

Based on this rationale, a proper strategy is needed in the marketing promotion to attract tourists and to reach the tourism market target in Dlingo. Therefore, the interest of this research focuses on utilizing the application-based information system visualization applied in smartphones for android and IOS. The use of the Android and IOS applications is expected to be able to give a contribution to the society and tourism managers in marketing the various tourism objects in Dlingo.

## 2 MATERIAL

Nowadays, the ways of marketing are gradually evolving from the customer platform into the digital economy platform. Marketing 4.0 utilizes the use of technology to reach the customers in a humanistic way that is supported by the big data (Philip Kotler, Hermawan Kertajaya, Iwan Setiawan,2018). The promotion strategy of this research is in line with the article written by Hermawan Kertajaya about the ways to keep the customers, which is by increasing the customers' digital experience via mobile application. He also states that in this digital era, the most crucial thing is smartphones, and therefore mobile commerce needs its special focus.

Based on that statement, tourism marketing strategy is very necessary, especially tourism promotion done to increase the number of tourist visits, both for domestic tourists and for international tourists. One of the ways to utilize the local resources optimally to increase the tourist visit is by developing tourism using the E-tourism

concept (Herlina, 2015). The domestic and international tourists are expected to be able to access the application using their smartphones, both Android and IOS (iPhone), to map and find information related to a tourism object destination. On the other hand, tourism application serves as a platform for the society, *pokdarwis* or tourism awareness group, and the local government in Dlingo to promote the tourism objects. Therefore, by developing the application optimally, creatively, and innovatively, the application can provide a positive contribution to the Dlingo district. This is in line with what is stated by Kussujaniatun (2017) that in facing tourism business competition, creativity and innovation are needed. The positive contribution eventually leads to the improvement of the economy of the society so that the poverty level will decrease.

## 3 RESEARCH METHOD

The methods employed in this research is a survey, interview, FGD, and field observation to support the data of the tourism objects (Kussujaniatun,2017) and the data about the facilities supporting the tourism in Dlingo. The research survey is conducted by visiting all of the 25 tourism objects to take the pictures and to conduct field observation. The observation is meant for the tourism objects, while the interview is conducted to the tourism awareness group, tourism village manager, and the local government in the village and district level in Dlingo.

The analysis conducted is descriptive statistics with the method of software planning using geographic information systems implemented on Android and IOS applications.

## 4 RESULT AND DISCUSSION

The step in making the geographic information system of the tourism distribution in Dlingo is by inputting the data of the tourism objects. The tourism objects in Dlingo district are as follows:

No	Village	Tourism Object
1	Mangunan	PangukKediwung Hill
		Mojo Gumelan Hill
		Watu Mabur Cliff
		Tembelan Cliff
		Mangunan Fruit Garden
		Seribu Batu Songgo Langit
		Watu Goyang

		Mangunan Hobbit House
		GajahCave Viewpoint
		Asri Pine Forest
		Watu Lawang
		SonggoLagit
		Gajah Cave
2	Muntuk	Lintang Sewu Hill
		Pinus Becici
		Pintoe Langit Dahromo
		Gunung Cilik Tourism Village
3	Terono	Watu Ngadek
		Sendangsari Pine Forest
		Gunung MungkerOutbond
4	Jatimulyo	Randusari Waterfall
		Tri Panjung
5	Dlingo	Lepo Waterfall
		Mahesa Jaya River Tubing Adventure
		Gunung Cilik Tourism Village
		Jatisari Seropan 3 Eco-tourism
		Banyu Nibo Waterfall
		Pintoe Langit Dahromo Spot

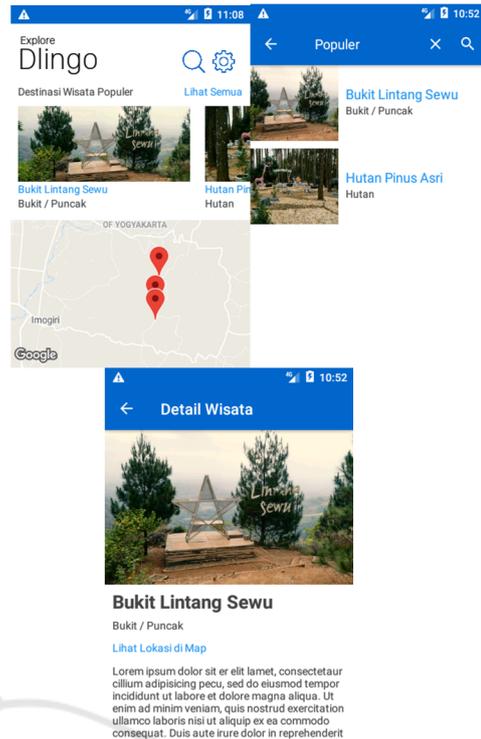


Figure.2: Visualization of Android Application

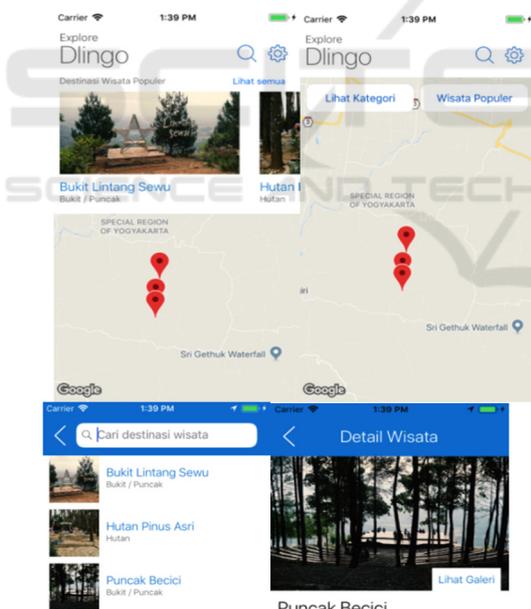


Figure.1: The visualization of IOS application

a. System Planning

The system planning is created in the form of a Data Flow Diagram that explains the steps of the data flow in the system.

b. Context Diagram

Context Diagram is the highest level that describes the whole system. The context diagram describes the data flow that will be processed in the system. The Context Diagram Planning built for the Explore Dlingo application can be seen in Figure 3. Administrators manage the main display of the application and add the data of the tourism destination, category, popular tourism, and tourism destination map, and thus, the data can be seen by the users via the application.

c. Zero Diagram

Zero diagram is the development of the context diagram that describes the detailed process like the data input process that eventually produces the output in the form of information. Zero diagram built for Explore Dlingo application can be seen in Figure 4.

### 3.1 Level 1 Diagram

Level 1 Diagram is the development of data adding process conducted by the administrators like data input of tourism destination data, tourism category data, popular tourism data, and pictures gallery data as well as the data of each tourism destination map. The display of the Level 1 Diagram can be seen in Figure 5.

### 3.2 Level 2 Diagram

Level 2 Diagram describes the data flow of the output process in the form of information that can be seen in Explore Dlingo application such as information of tourism destination, tourism categories, popular tourism, pictures gallery, and the map of each tourism destination. The display of the Level 2 Diagram can be seen in Figure 6.

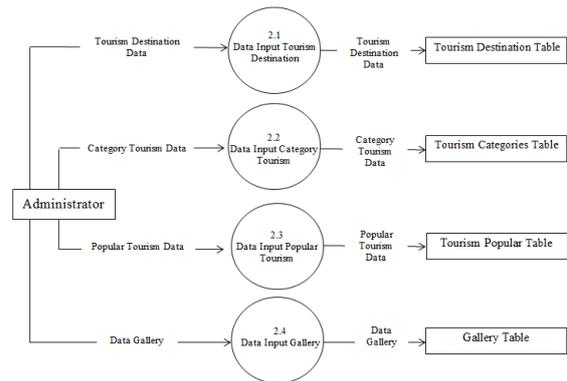


Figure.5: Level 1 Diagram

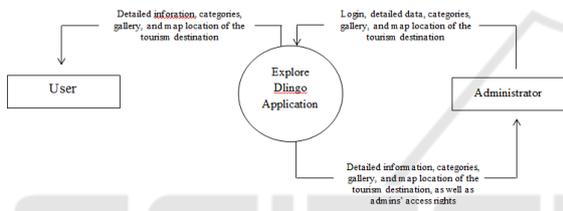


Figure.3: Context Diagram

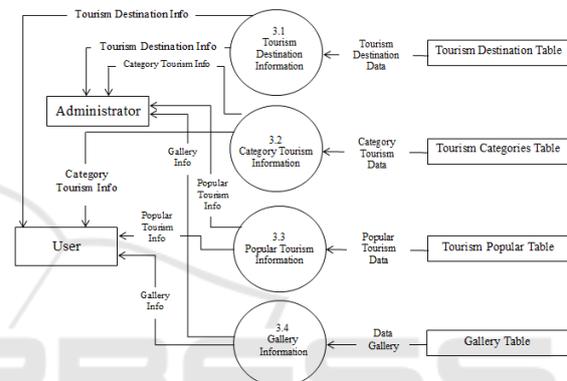


Figure.6: Level 2 Diagram

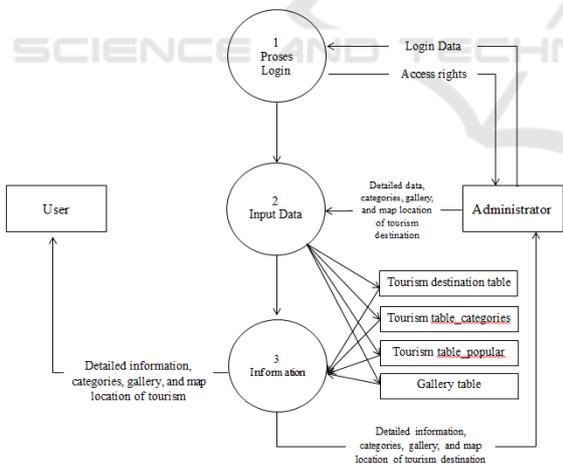


Figure.4: Zero Diagram

## 5 CONCLUSION

Market limitedness still serves as a problem for the managers of tourism in Dlingo. Therefore, there is a need to conduct digital promotion strategy that can be applied by providing mobile application facilities for the tourists to attract the number of the tourists to visit all of the tourism objects, in which there are 25 tourism objects that need to be developed and exposed in Dlingo, Bantul.

IOS and Android are the mobile applications that are easily accessible, both from Android smartphones like Samsung and IOS smartphones like iPhone, and thus they will increase the number of the tourist visit in Dlingo, Bantul both for domestic tourists and international tourists.

## 6 RECOMMENDATION

The recommendation given is always to update the information provided to the tourists via IOS and Android applications. Besides that, there is

also a need to build cooperation with the travel agents and public and private institutions.

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