Potential Used of Social Media/Mobile Phone to Support Promotion and Marketing in the Rural Tourism Destination

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Abstract
Currently, social media, especially mobile phones, are increasingly playing an element of business strategy. Social media offers its capabilities as a tool to reach global marketing targets. Studies on the use of social media have shown that the use of social media as a variety of strategies produces significant results. Likewise, many references show that the potential for the promotion of tourist objects by utilizing advanced technology or through electronic media is very important and profitable. This study aims to see opportunities for the use of social media, especially mobile phones in supporting the promotion and marketing of regional tourist destinations in Indonesia at the district/city level, which generally has not been easily and well informed to the public. The research methods used were interviews and field surveys as well as a literature study and regional tourism regulations. The results of the research are the potential for the use of mobile phones at the district/city level, the availability of technical support, and the proposed implementation.

Keywords
mobilephone, tourism, destinations, promotion, rural

1. Introduction
Indonesia is a large country with extraordinary natural and cultural beauty as well. This beautiful nature coupled with the beauty of the culture makes many tourist objects in the area worth visiting a potential that should not be ignored. The regional tourism industry still faces several challenges however, this industry is very promising, and the number is growing. Of course, it cannot be denied, there are many beautiful tourist spots but very difficult to reach or high risk, as well as the availability of facilities and infrastructure. In many countries several authors, such as Hossain et all. (2020) reveal that some of the weaknesses and threats faced in the rural tourism industry are: safety and security, poor infrastructure, lack of local community participation in tourism development and marketing strategies, lack of public awareness, degradation of the natural environment, management of tourist demand development and sustainable tourism infrastructure development to attract tourists. These weaknesses and threats are seen both directly and indirectly as anticipated by the central and regional governments and the community in general so that gradually
a conducive and pleasant tourism environment will be created in rural areas. Unfortunately, many tourist destinations like this have not been informed to the wider community so that it has not created opportunities for tourists to visit this area. Even though the village community has played a role because it can directly or indirectly increase community income. Indeed, there is a need for synergy between local communities, local governments, and other stakeholders. Local governments have felt that, directly or indirectly, regional tourism can create jobs, promote local culture, and develop the economic potential and welfare of local communities. Referring to the Republic of Indonesia Law (2009), Number 10 concerning tourism and the Government of Indonesia Regulation (1997) Number 47 concerning National Spatial Planning, and the some provincial and districts regulations concerning tourism, currently the provincial and district/city governments have promoted regional tourism up to the tourism village level which turns out to have a significant impact on society and increase family income. This tourist attraction needs to be informed to the wider community so that both parties benefit from each other. For example, a new tourist attraction in Gunung Kidul Regency, Yogyakarta, from about 50 tourism objects, there are 17 new beach tourism objects and culinary attractions that are not widely known by the global community, so that only tourists from the surrounding area have visited them even though the increase in visits is quite high. Currently, tourists generally only visit DI Yogyakarta Province because of its well-known objects: Malioboro, Kraton, Borobudur, and Prambanan. Therefore, tourist objects that are not well known, both old and new tourist destinations, need to be informed or promoted to the wider community because they have the potential to increase domestic and foreign tourist visits. This applies to other districts/cities. Promotion and marketing can be done in traditional ways, but the use of advanced technology that is currently available is a promising opportunity. The growth of information technology has had a significant influence on the tourism industry and currently, through social media, tourists and managers of tourism destinations or attractions can interact with each other in monitoring and providing opinions as well as evaluating every form of service provided directly, through online media internet. By utilizing this technology, tourism information can be built to provide more detailed and comprehensive information without limitations on data volume and promotion targets through social media. This media has the potential to inform these objects as well as promote and market them. Social media is increasingly playing a role as an element of business strategy, of course, it will also play a role in marketing tourism products. Social media offers its capabilities as a tool to reach global marketing targets even with limited resources. Xiang (2020) stated that smartphones or smartphones with large data access capabilities and many application software play an increasingly important role in the daily life of users. Hays et al. (2013) stated that studies on the use of social media show that the use of social media strategies varies significantly. Judging from the availability of technology infrastructure, data from the Central Bureau of Statistics (CBS) Indonesia (2019) shows an increase in mobile phone users from year to year. In 2019, there were 92 million mobile phone users, and from year to year with a significant increase, the increase from 2016 to 2019 was respectively: 65.2 million, 74.9 million, 83.5 million, and 92 million. Apart from CBS, information from http://wearesocial.sg shows that internet users in Indonesia reached 132.7 million with a penetration of around 51 percent of the population, while active social media users reached 106 million with active mobile social media users reaching 92 million or around 35 percent of the population. Population. This data shows that the potential for the promotion of tourist objects by utilizing advanced technology or through electronic media is very important and profitable. By using a mobile phone device equipped with internet applications and features such as google map/satellite, GPS, share location can help get tourist information and get to these tourist attractions. In terms of internet network support, almost all parts of Indonesia are covered by this service. Thus, three important things that need to be started are: What information needs to be conveyed to potential tourists, the extent to which the availability of information technology can be used, and what kind of support is needed. In more detail, the things that need to be answered are the information needs that are currently relevant to tourism for tourists and to promote new tourism objects in an integrated manner, the extent to which the use of information technology in tourism supports the promotion and marketing of regional tourism, how is the application design integrated tourism that can integrate tourism promotion, especially new tourism and culinary objects, and what obstacles are found in the use of information technology to support the implementation of integrated tourism applications. If this is answered, it will be able to assist tourism agencies and managers in the region in making an inventory of data and information related to tourism aspects, sustainably so that they can be used to develop tourism in the region in an integrated manner which includes tourism, culinary, transportation and lodging objects. Add introduction here including motivation of the research (why this research is important / why this research is needed), and problem statements. (10 font)

2. Literature Review
Travel Destinations. According to Kreck (1996), the criteria for a tourist area are the existence of objects (one of the natural, social, and cultural elements), access (roads, easy routes, parking lots, and affordable parking prices), accommodation (lodging services such as hotels, guesthouses, inns), supporting facilities
According to Spillane (1994), a tourist object or destination must include 5 (five) elements that are important so that tourists can feel satisfied in enjoying their trip, so tourism objects must include: (1) Attractions, tourism objects capable of attracting tourists who want to visit, such as natural beauty, climate, and weather, culture, history, ethnicity-tribal nature; (2). The facility, attractions need to be supported by facilities and facilities that tend to develop following the development of attractions as well as the needs of tourists; (3). Infrastructure, Attractions, and facilities cannot be reached easily without basic infrastructure. Infrastructure includes all constructions below and above ground and an area or area, such as roads and means of communication; (4). Transportation, terminal, and local transportation services at the destination must be available to all passengers before departing from the area of origin; (5). Hospitality (hospitality), tourists who are in an unfamiliar environment, the assurance of security and hospitality is very important, especially foreign tourists.

Tourist information. Tourist information is information about what needs to be conveyed to potential tourists concerning types of tourist destinations, namely: nature tourism, religious tourism, shopping tours, culinary tours, educational tours, cultural tours, hunting tours, and political / convention tours. According to Government Regulation (1997) concerning the National Territory Spatial Plan regulates the criteria, objects, and targets for tourism, the types of tourism areas are categorized into 11 regions, namely: (1). Beach, Coastal Areas, Coastal, and Marine Areas; (2). Small Islands Area / Island Area; (3). Forest; (4). Mountain Areas; (5). Rural Area Areas; (6). Urban Area; (7). Spa and therapy area; (8). Themed area; (9). Recreation area; (10). Fishing area; and (11). Dive Areas. In each tourist area, special facilities are planned to be built, for example for the Beach Area, the Coastal Area, the Coastal and Marine Area, a sun area, a public swimming/beach area, a coast guard facility, fired fighting facility for boats, pedals, surfing, diving, and fishing will be built. - Snorkeling equipment, sailing facilities, yacht facilities, controlled protection areas for children with swimming pools, children's playgrounds and boats, port/jetty/marina facilities, refueling center, beach equipment storage space, education center & instructional classroom. Tourist areas, whose facilities have been realized by both local governments and investors, need to be informed to the domestic and global community. Of course, if this information is to be displayed on the web, the information needs to be designed to be attractive and simple, with accurate content, and to pay attention to what tourists want to be said by Eger, R. (2008). Information that needs to be displayed usually includes attraction / attraction (picture / photo / video), location (map), distance (GPS), transportation, accommodation (nearest hotel / inn), culinary (picture / photo / video). The criteria for good travel information include precedence, spacecraft, navigation, design, typography, usability, alignment, clarity, and consistency.

Social media. Social media is a medium for socializing with each other and is done online which allows humans to interact with each other without being limited by space and time. Many authors define what is social media, Cohen (2011) summarizes 30 different definitions of social media from different perspectives. Several important characteristics and characteristics of social media have been identified in this definition. They include: 1) social media are online tools, applications, platforms, and media, and therefore depend on information technology; 2) social media is a peer-to-peer communication channel, which enables interactive web content creation, collaboration, and exchange by individuals and the public, a facility that introduces a substantial and widespread change to communication between organizations, communities and individuals; and, 3) connecting social media users to form virtual communities by cross-platform use, and thereby influencing people's behavior and real life. So related to tourism, Social media is a communication medium as well as a collaboration tool that allows many types of interactions, uses advanced technology so that content can be accessed and measured, and is an instrument that provides facilities for communicating and collaborating online. Concerning tourists, Xiang (2020) mentioned again that social
media appears as a search engine for tourism information in the context of searching for travel information. Regulation of the Minister of Tourism and Creative Economy / Head of the Tourism and Creative Economy Agency of the Republic of Indonesia (2020) concerning the Strategic Plan of the Ministry of Tourism and Creative Economy / Tourism and Creative Economy Agency for 2020-2024 states that through social media, promotion/marketing, campaigns can be carried out, disseminating information related to products, tourism events, and tourism destinations to potential tourists effectively and efficiently. In the use of information technology, Ndou et al. (2005) state that "A tourism network system is the one that compromises a multiplicity of an autonomous, interdependent, enterprise without physical borders of separation from the environment that relies on the internet infrastructure to integrate and exchange value". Thus web-based applications on mobile phones are an important part of this concept, but with a more friendly design and pay attention to the principles of ease of use, with good navigation, attractive design with the content that supports promotion and marketing. The most important benefit in using a mobile application is that the distribution of various kinds of information in general such as prices, news feeds, user accounts, order forms, messengers, and others can easily be accepted by customers. So, all the info you want to give your customers like promotions or special sales can be easily communicated with the touch of their fingertips. For example, by using the push notifications feature, you can easily interact with travel service providers directly so that they can easily provide information about the products and services offered. From the tourist side, they can take advantage of and get mobile applications by digitizing the loyalty program easily. Mobile applications can play a role as a means of disseminating tourism information and contribute to increasing the branding of tourism products. Two things that make mobile applications perform better are the effort to get users, in this case, tourists, to be involved so that they tend to buy the products or services offered faster. For example, after a traveler is connected there is a help desk feature or an order feature. Of course, good communication will make customers more interested in the tourism products/services offered. For small businesses, mobile applications, which may be rarely used by small businesses, can now play a role in business competition. There is a growing literature that specifically explores adaptations to cellular technology. Kim et al. (2008) estimate that a conceptual model of tourist acceptance of mobile technology finds perceived usefulness and, to a lesser extent, perceived ease of use, is a strong determinant of tourists' attitudes towards mobile devices and their intention to use them in a tourism context. Bader et al. (2012) also estimated TAM, finding that the intention to utilize mobile services in its tourism context is strongly driven by usability, ease of use, and social influence. No and Kim (2014) used the UTAUT framework to explore the intention of adopting a smartphone to access tourist information, finding ease of use, social influence, and satisfaction with travel websites were the main determinants of influencing tourist adoption decisions. Also, Lai (2013) found that the amount of information provided and whether an application was considered pleasant or enjoyable were the main determinants of tourists' intention to adopt smartphone tour guide application use. Mang et al. (2016) and Rezaei et al. (2016) stated mobile technology assists navigation, electronic guidance, getting information on tourist sites, and sharing of travel experiences. Kim et al. (2015) explored the mobile shopping behavior of tourists, while Chou et al. (2017) found that cellular technology can enrich travel experiences by increasing the ability of tourists to tell and share life experiences. Langelund (2007) argues that greater cellular access will encourage greater independence and self-service for travelers and possibly reduce customer service costs of travel suppliers and intermediaries. Smartphones also support spontaneous activities such as making dinner reservations or finding nearby shops, activities for which Biloš et al. (2016) describe micro-moments. Furthermore, Dan et al. (2012) studied customer evaluations and reviews of smartphone apps to understand how smartphones facilitate travel experiences. Their results imply that smartphones can influence tourist behavior and satisfaction with the satisfaction of a broad range of informational needs. Also, in their study of tourists at an amusement park, Brown et al. (2013) reported that the boost to mobile device's geolocation capabilities and features, together with its ubiquity and frequency of use, could drive a scale of tourist responsiveness and immediacy that could not be matched by more traditional ways to attract tourists. The literature identifies the various potential uses for mobile phones as well as consumers' perceptions of such use, as well as background factors including age and gender that may influence consumer adoption or use decisions in certain situations. The following Figure 1 is an outline of the tourism mobile application architecture.
Stakeholders Support. Businesses in the tourism sector cannot stand alone and must mutually benefit one another through cooperation or collaboration. These efforts include tourist destinations, transportation, hotels, and culinary. Of course, the government is very interested in making the business in the tourism sector increase, efficient and effective in providing various tourism services to users of tourism services and making tourism implementation better and more qualified. As in the Gunung Kidul Regent Regulation Number 69 of 2016 concerning Position, Organizational Structure, Duties, Functions and Work Procedures of the Tourism Office, it is stated that one of the duties of the Tourism Office is to carry out guidance, development, and control of tourism business activities and creative economy, promotion, information, and tourism marketing.

3. Methods
By paying attention to the objectives of this research, namely to assist regional tourism business actors in promoting and marketing regional tourism, it is necessary to have an inventory of data and information content relating to the promotion and marketing of tourist destinations related to the promotion and marketing of tourism in the regions, suitable social media studies to support promotion and marketing, and design applications and promotional prototypes and marketing of new destinations by utilizing the existing infrastructure available, so that the methodology used is to collect data (internet browsing, interviews, and surveys), literature studies and applicable laws and regulations, applicable, and object-oriented system application design or OOAD (Object Oriented Analysis Design).

4. Discussion
4.1 Regional Tourism Object.
Official data from the Regency / City Level Tourism Office generally does not mention the number of tourism objects in the area, both existing and new ones. However, the number of tourism objects at the Regency / City level is informed by many tours and travel services companies such as traveloka, javatrail, and wisatalengkap. The following Table 1 shows the number of tourism objects in 12 districts/cities based on their website.

<table>
<thead>
<tr>
<th>No</th>
<th>District / City</th>
<th>Javatravel</th>
<th>Traveloka</th>
<th>Wisatalengkap</th>
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</thead>
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Table 1: Number of Tourism Destination
The tourist objects displayed by them are generally beaches, caves, temples / historical relics, mountains, educational tours, and forests. By considering the criteria for areas/tourism objects from Kreck (1996) and the Tourism Law (2009), these objects meet the criteria of a tourist attraction even though the completeness of these attractions is not optimal. In Indonesia, the four most important elements make a destination a tourist destination, namely attraction, transportation, hotels/restaurants, and community empowerment/marketing. This needs to be considered in the design of the mobile phone application that will be built to inform the support for the facilities and infrastructure of the object. This information needs to be provided so that tourists do not overestimate or underestimate the destination tourism objects. Therefore, apart from information on what objects can be enjoyed, it is also whether there are restaurants, lodging, public transportation, internet/telephone networks, or road conditions to tourist objects.

4.2 Tourism Object Database

The tourism object database must be able to produce current and comprehensive tourist information. Vellas (2008) stated that the tourism business is not a single business but is related to one another. Therefore, the roles of tourism object managers, lodging providers, culinary providers, and transportation providers are very important in database development and rejuvenation. Changes in the services provided need to be continuously communicated to the application manager so that the information generated is current and complete. By paying attention to the criteria for tourism objects, the minimum data that must be available at the regency/city level are spatial data and tabular data concerning maps of areas, locations of tourism objects, roads, lodging, culinary, stations/terminals, gas stations and parking. Meanwhile, tabular data consists of information about the object or location. The elements of this database can be text, numbers, images, video, audio, or a combination thereof.

4.3 System Applications.

In using social media, an application must be built according to what goals you want to achieve. Think about how to use social media to achieve these goals such as content and ease of use as stated by Kreck (1996). The system application is built with the Android OS mobile phone with an architectural outline as shown in Figure 1 above. A destination management system is needed in the process of collecting and conveying available information about a tourist destination as completely as possible to help tourists understand the tourist destinations appropriately and plan their trips. Through a network of individual providers, enabling destination information to be prepared as travel content is available in a decentralized system. This application is designed to be available on the Play store Platform so that tourists can easily download it and "release" it when they don't need it. When this application is opened, a map of the tourist area will appear with a number of tourist objects in it and other important supporting facilities. Of course, this
screen can be zoomed in-out so that tourists can easily select the desired tourist attraction. The selected tourism objects will provide information such as hotels/inns, culinary delights, and other information, which can be drilled down to the address and telephone number as shown in the example of one of the UI sequences. Figure 2 is user interface of Play Store Icon, Figure 3 is selected list of application under Play Store. Figure 4 is map of location in an district/city (Distrcf of Gunung Kidul) and Figure 5 is one of tourism destination (Cave Pindul Area). In this area, there are many culinary shops, shown in Figure 6, and Figure 7 shows specific food with traditional spices and flavor such as satay (small pieces of meat roasted on skewer).
4.3 Local Government Support

In carrying out tourism development, of course, it cannot be separated from the role of local government, namely the Tourism Office which has the duty and authority as well as the obligation to develop and utilize regional assets in the form of tourism objects. With this duty and authority, the Tourism Office must implement policies that are most beneficial to the regions and their territories which directly or indirectly: (1). Trying to give satisfaction to tourists who come to visit the area with all the facilities and potential it has, (2). To coordinate among the various existing businesses, institutions, agencies, and services aimed at developing the tourism industry; (3). Strive to socialize the understanding of tourism to the people, so that they know the advantages and disadvantages if tourism is developed as an industry; (4). Carrying out research programs aimed at improving tourism products and developing new products to dominate the market in the future; (5). Provide all equipment and facilities for tourism marketing activities, so that marketing strategies can be arranged throughout the region; (6). Formulate policies on tourism development based on the results of research that has been carried out regularly and planned. Besides, several things need to be prepared, such as existing resources, preparing the community, and the readiness of other supporting facilities, because tourists want satisfying services after all. By paying attention to these duties and authorities, the tourism office needs to facilitate the promotion and marketing of tourism objects in the area both off-line and online as well as providing complete information to tourists. One of them is to facilitate the development and operation of regional tourism promotion and marketing applications.

4.5 Implementation Stages

At the implementation stage, it is necessary to do the following things. First, it is necessary to start with socialization/training to inform tourism business actors that they understand that the services produced will be informed on the global internet so that what is informed must be following the services produced and the need for data rejuvenation of the services produced. Second, collecting data from services produced by business actors in the tourism sector, ranging from tourism objects, hotels/inns, and restaurants. Third, development/operation of applications/databases; Fourth, hosting and uploading to the global internet (play store); and fifth, application socialization. The socialization of this application/module can be done through the website of the Regency / City or Province tourism office, off-line in places that are potential for tourists or potential tourists to pass.

5. Conclusion

There are quite a lot of tourism objects at the Regency / City level that needs to be informed and promoted electronically. The use of social media / mobile phones is expected to provide convenience to access tourism information for tourists, as well as a means of promoting and marketing tourism electronically in the area. Utilization of social media to support tourism promotion and marketing at the district/city level needs to be supported by correct and comprehensive data and information on tourism objects. The tourists do not overestimate or underestimate the tourism objects and other support services offered.

In the promotion and marketing activities of regional tourism, it is necessary to empower the community to support each other both in providing services and providing data and information about tourism products.
References

The Republic of Indonesia, Law No. 10 Year 2009 concerning Tourism, 2009

The Government Regulation, Regulation Number 47 Year 1997 concerning National Spatial Planning, 1997

The Minister of Tourism and Creative Economy / Head of the Tourism and Creative Economy Agency of the Republic of Indonesia, Regulation of Number 12 Year 2020 concerning the Strategic Plan of the Ministry of Tourism and Creative Economy / Tourism and Creative Economy Agency for 2020-2024, 2020

The Provincial D.I. Yogyakarta, Regional Special Regulation Number 1 Year 2012 concerning the Master Plan for Regional Tourism Development of the Special Region of Yogyakarta 2012-2025, 2012

The Provincial Central Java, Regulation Number 2 Year 2019 concerning Empowerment of Tourism Villages in Central Java Province, 2019

The District of Gunung Kidul, Regulation Number 69 Year 2016 concerning Position, Organizational Structure, Duties, Functions, and Work Procedures of the Tourism Office, 2016

The Provincial Bangka Belitung, Regulation Number 7 Year 2016 on The Master Plan for Tourism Development Province of Bangka Belitung Islands Year 2016-2025, 2016

Hossain, M. I., Khanal, B. P., SWOT Analysis of Forest Protected Area Based Sustainable Tourism Development: A Case Study in the Lawachara National Park, Bangladesh, Journal of Tourism and Hospitality Education, 2020

Xiang, Z., Role of Social Media in Online Travel Information Search, Tourism Management Volume 31, Issue 2, April 2010, Pages 179–188, 2020

Hays, S., John, S., P., Buhalís, D., Social media as a destination marketing tool: its use by national tourism organizations, Pages 211-239 | Received 17 Nov 2011, Journal Current Issues in Tourism Volume 16, 2013

The Central Bureau of Statistics Indonesia, Indonesia Telecommunication Statistics 2018, 2019


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