Development of E-Marketing Model Based on Android/iOS Application for Whale Shark Tourist Destination in Botubarani Village, Bonebolango Regency, Gorontalo

Rizki Aditya Mohamad*, Titien Damayanti, I Wayan Mertha

Politeknik Pariwisata Bali, Indonesia

*Corresponding Author: rizki.am65@gmail.com

Abstract

This research is conducted to develop an android/iOS application-based e-marketing model in whale shark tourist destinations, Botubarani Village, Bonebolango Regency as one of the marketing media. This research was raised with the premise that information and communication technology is growing. Where information is available and can be accessed anytime and anywhere. The objective of this study is to create an e-marketing model for Whale Shark Tourist Destination in Botubarani Village, utilizing android/iOS platforms. This research uses qualitative methods with a descriptive approach with the main material in the form of primary and secondary data which aims to develop an e-marketing model based on android/ iOS applications. Prototyping is an approach in software development that allows interaction between system developers and system users. The results of this study resulted in an android/iOS-based application developed as a marketing model for whale shark tourist destinations in Botubarani Village.

Keywords: whale shark destination; marketing; marketing strategy; digital marketing; android/iOS apps.

INTRODUCTION

Background

Tourism is an important industrial sector in the growth and development of a country or nation. This is evidenced by the multiplied impact generated, such as increasing foreign exchange, job creation, and driving micro-industries. The United Nations World Tourism Organization (UNWTO) also recognizes the important role of tourism in the development of a region and the improvement of people's welfare. In its development, the tourism sector continues to grow and become a resource that will never run out if utilized properly. Each tourist destination needs to have a different uniqueness in order to attract tourists. This uniqueness factor is one of the main attractions when choosing a tourist destination. Gorontalo Province has natural potential, biodiversity, and cultural heritage that can be developed into

attractive tourist destinations. One example is Botubarani Village in Gorontalo Province, which is known for its unique marine tourism, namely whale-shark tourism.

Botubarani waters, located in Kabila Bone District, Bone Bolango Regency, Gorontalo Province, are a habitat for Whale Sharks that appear every day. The presence of this Whale Shark has attracted tourists to visit the area. With visits through dive centers, information spreading, and viral information on social media, the number of tourist visits to Botubarani Beach continues to increase. The natural potential, biodiversity, and cultural heritage owned by Gorontalo Province can be used as resources to be developed into tourist destinations (Anugrah, 2018; Manyoe et al., 2021). In addition to the uniqueness of tourist destinations, the development of digital technology has also influenced the way tourists choose and explore tourist destinations. Digital technology provides easy access to information that is fast and can be accessed anytime and anywhere. Utilizing new media and technologies is essential for ensuring sustainability. New media presents a more cost-effective avenue for destination marketing and presents numerous opportunities for engaging visitors in attracting potential tourists to destinations (Kiráľová & Pavlíčeka, 2015).

According to Independent UK, as many as 40% of millennials in the UK choose tourist attractions based on their level of "Instagrammability", which is how beautiful the place is as a photo background. For millennials, getting great Instagram photos is considered more important than the opportunity to learn about the local culture of a place. This shows how influential social media is on travelers' preferences. Social media and their applications offer the capability to aid travelers by granting convenient access to information from virtually any location and at any time, top of form and bottom of form (Galan et al., 2015). The bulk of marketers

in the tourism and tourism services sectors have initiated the development of their offerings through smartphone and iPad applications. These apps contribute to the diversification of their services and furnish information about tourist destinations and brands endorsed by marketers, tailored to meet the demands of their target markets (Alghizzawi et al., 2018; Dogtiev, 2018; Mhamdi et al., 2018; Salloum et al., 2017)

Digital marketing in tourism involves the use of digital technology as the primary means to support the marketing function. It involves sending content online to customers with the aim of engaging them in interactions related to business products and services. In the digital era like now, tourists tend to look for information through social media or search engines on the internet before visiting tourist destinations. They expect easy access to information about the attractions they want to visit. Tourism marketing through Android and iOS apps has proven effective in reaching and engaging with travelers digitally. By using a mobile application, tourism managers can provide complete and up-to-date information about tourist destinations, display interesting photos and videos, and provide interactive features to make it easier for tourists to plan their trips. Tourism managers need to realize that digital marketing models have become very important in attracting tourists as a result of the rapid development of information technology. Therefore, tourism village managers should pay greater attention to marketing with this digital concept to create brand awareness (Gorda et al., 2020).

In this study, it was raised with the premise that information and communication technology has developed where information is available and can be accessed anytime and anywhere. Digital marketing is a situation where marketers must master it. The use of android/iOS applications as a marketing promotion medium is absolutely necessary, as a medium to get closer to the potential market. The purpose of this study is to develop an android/iOS-based

e-marketing model in whale shark tourist destinations in Botubarani village. It is hoped that through the development of an Android/iOS application-based e-marketing marketing model, the manager of the Botubarani Village Whale Shark tourist destination can increase the number of tourist visits.

LITERATURE REVIEW

Marketing

Marketing is an overall system of planned business activities to plan, price, promote, and distribute goods and services that can meet the wants and needs of current and potential consumers (Abdullah & Tantri, 2012). Tjiptono & Chandra (2012) define marketing as individual activities aimed at meeting wants and needs through the exchange of goods or services. Marketing means identifying and meeting human and social needs with the aim of satisfying human needs and desires, and success in marketing is considered the key to the success of an enterprise.

Marketing Strategy

Marketing strategy is a strategy used by a company to deal with the market or market segment that is its target. Marketing strategy is a logical foundation used by companies with the expectation that business units will achieve company goals (Kotler, 2001). A marketing strategy is a plan designed to influence exchanges in order to achieve organizational goals. Usually, marketing strategies aim to increase the likelihood or frequency of consumer behavior, such as increased visits to certain stores or purchases of certain products. This can be achieved by developing and presenting a marketing mix aimed at the selected target market (Nugroho, 2003).

Digital Marketing

Digital Marketing can be explained as a series of marketing activities, including branding, that use various web-based media (Sanjaya & Tarigan, 2009). E-marketing, or digital marketing, basically refers to the use of digital technology in achieving marketing goals as well as efforts to develop or adapt marketing concepts. This enables communication on a global scale and changes the way companies interact with customers (Ali, 2013).

Digital marketing has the potential to reach internet users around the world without geographical or time restrictions. One tool that is often used in digital marketing is social media, for example, Twitter, Instagram, Facebook, Telegram, Spotify, YouTube, and TikTok (Zanjabila & Hidayat, 2017). Digital marketing can be described as marketing activities that utilize various web-based media (Saputra et al., 2020). Digital marketing is the use of digital technology in order to achieve marketing goals and develop or adjust marketing concepts carried out by companies (Gunawan & Septianie, 2021).

Social Media

Kotler (2012) classifies social media into three main categories. First, "Online Communities and Forums" are online communities, groups, or forums formed by consumers or groups of consumers without the influence of advertising from a company or direct support from a company. Members of this online community interact directly with the company and fellow members through posts, direct messages, or discussions via chat about topics related to the product and brand they want to review. An example of this community is FemaleDaily.com.

Secondly, "Bloggers" are online journal records that are accessible to internet users and updated continuously. Bloggers have an important role in the word-of-mouth (WOM) method. Third, "Social Networks" are a fundamental force in marketing, both in the relationship between business and consumers (B2C) and business and business (B2B). Social networks can be social media sites such as Facebook, Instagram, Twitter, and LinkedIn.

Social media marketing is a marketing strategy that uses internet platforms with the aim of achieving marketing targets through various social media networks. Through this marketing, interaction between consumers and sellers can be improved, which can encourage consumers to buy the product. Attractive product displays can also make visitors interested in the content displayed (Mao et al., 2014).

Android/iOS App

Lutfiansyah (2016) explained that Android is an operating system that is open source, so programmers have the opportunity to create applications and modify this system. The existence of this open-source nature provides a great opportunity for programmers to get involved in Android application development. Most of the apps available on the Play Store are free, but there are also some paid ones. iOS apps refer to apps developed and designed specifically for the iOS operating system used on Apple devices such as the iPhone, iPad, and iPod Touch. iOS is an operating system developed by Apple Inc. and can only be run on devices manufactured by Apple. iOS apps can be downloaded and installed through the App Store, the official platform for distributing apps on iOS devices.

Tourism Marketing

According to Krippendorf (2013), tourism marketing is a system and coordination effort needed by companies and tourism industry groups, both private and government-owned, with the aim of meeting tourist satisfaction and achieving fair profits. Tourism marketing is carried out on a local, regional, national, and international scale to promote tourism destinations and services, increase tourist attraction, and achieve profitable results. Tourism marketing through Android or iOS applications is one effective strategy to reach potential tourists who use mobile devices. With tourism apps, Android and iOS users can easily access information about tourism destinations, facilities, attractions,

events, and other related services. Through the application, users can find relevant information quickly, such as descriptions of tourist attractions, photos, reviews, maps, and contact information.

METHODS

This research uses the qualitative method with a descriptive approach, with the main material in the form of primary and secondary data. This study aims to develop an Android/iOS application-based E-Marketing Marketing model for whale shark tourism destinations in Botubarani Village, Bonebolango Regency, Gorontalo Province.

Premier data in this study is data obtained by researchers from the management of tourist destinations, namely in the form of types of social media and posts from managers for the promotion of whale shark tourist destinations. Premier data is obtained by conservation and interviews with tourism destination managers. Secondary data in this study is visitor data for whale shark tourist destinations, Botubarani Village, Bonebolango Regency, Gorontalo Province from related agencies, these data are needed to see the level of tourist visits and map tourist interest in whale shark tourist destinations.

The prototype method is an approach in software development that facilitates interaction between system developers and system users, with the aim of overcoming incompatibilities between developers and users (Pressman, 2012). The prototype development model is as follows:
a. Communication

At this stage, identification was carried out in the form of problems in the Whale Shark Tourism Destination of Botubarani Gorontalo Village in the form of interviews and observations with the management of the Whale Shark Tourism Destination which aimed to analyze the digital marketing media used by the Destination manager. The success indicator at this stage is being able to solve problems by

implementing the right digital marketing strategies and media for the managers of the Botubarani Gorontalo Village Whale Shark Tourism Destination.

b. Planning

This stage is carried out with resource determination activities, specifications for development based on system needs and objectives based on the results of communication carried out so that development can be as expected.

c. Stage Modeling

A design is made based on the results of the communication process with the destination manager and related stakeholders which will later be used as a reference source at the prototype development stage. The indicator of success at this stage is that it can produce a system design that describes in general which will then be developed again.

d. Construction

Based on the results of stage modeling, a prototype will be made, describing in general about the development that will be carried out on the android / iOS application system that will later be used. The success indicator at this stage is to build a prototype that can be understood by tourism destination managers and stakeholders that can contain an overview of the android / iOS application system and its operation.

e. Submission

This stage is the stage where the prototype that has been completed is given to tourism destination managers and stakeholders then the feedback that has been received is implemented into a ready-to-use android / iOS application. The success indicator at this stage is that it can produce a ready-to-use android / iOS application system which is a solution to the problems found in the old system.

RESULTS AND DISCUSSION

Botubarani is one of the villages included in Kabilabone District, Bone Bolango Regency, and Gorontalo Province. The village has a position facing directly toward Tomini Bay. This village has a short history, dating back to the expansion of Huangobotu Village on August 24, 2004. The name of this village comes from the existence of a large stone called Batubarani, located in the hamlet of West Tamboo. At that time, the stone was occupied by a brave man named Tibarani, so this village was named Botubarani.

Botubarani Village Government consists of three hamlets, namely West Tamboo Hamlet, Central Tamboo Hamlet, and East Tamboo Hamlet. Botubarani Village is included in the administrative area of Kabila Bone District Government, Bone Bolango Regency. The boundaries of Botubarani Village are as follows: (a) The north is bordered by Buata Village; (b) The east is bordered by Huangobotu Village, Moutong Village, South Toto Village, Tamboo Village, Poowo Village, and Timbuolo Village; and (c) The south is bordered by Tomini Bay. The west is bordered by Gorontalo City.

Results of Android/iOS Application Based Marketing Model Development
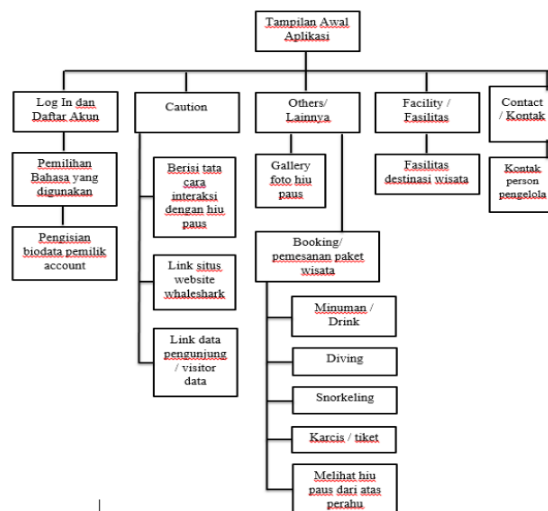

Figure 1. End Product Concept Botubarani WhaleShark Application

The final product results after revision are displayed in two languages with the following display:

a. Application Name and Logo

Figure 2. Meaning and Philosophy of Application Logo

Figure 3. Whale Shark App Start Page View

b. Language Selection Page

This page contains available in two languages, namely English and Indonesian. Users are given freedom in choosing the language to be used.
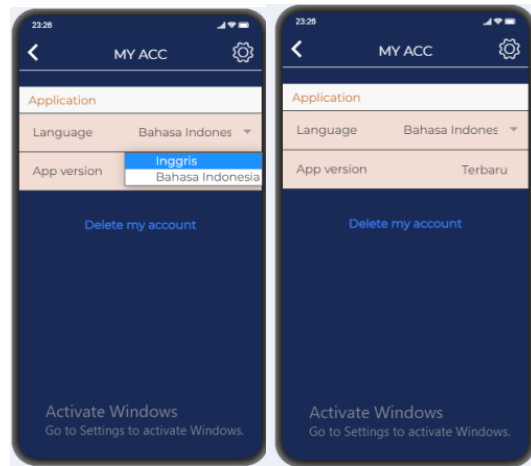

Figure 4. Display the Language Selection Used

c. New Account Creation and Login Page
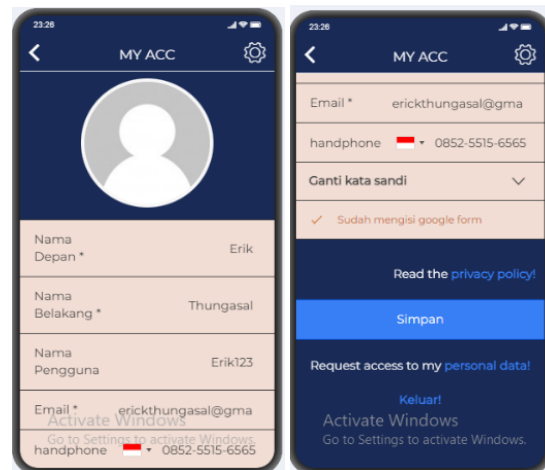
Figure 5. Log In Page View and List of New Accounts

The log in page and the new account list contains the first name, last name, username, email, phone number, password columns. Users who do not have an account can fill in their personal data first.

d. Caution

The caution page contains 3 photos that can be shifted, procedures for interacting with whale sharks, links to the whale-shark botubarani website, and visitor data links that must be filled in by whale shark tourist destinations.

Figure 6. Caution Page View

e. Others Page

The others page contains two menus, namely the gallery menu and the booking menu. The gallery menu contains photos of whale shark tourist destinations, while the booking menu contains tour packages that can be chosen by prospective tourists or whale shark tourist destinations.
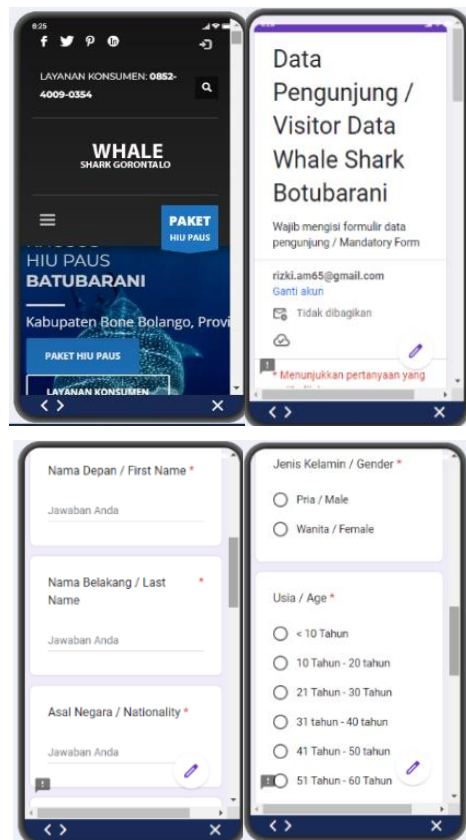

Figure 8. Gallery Page

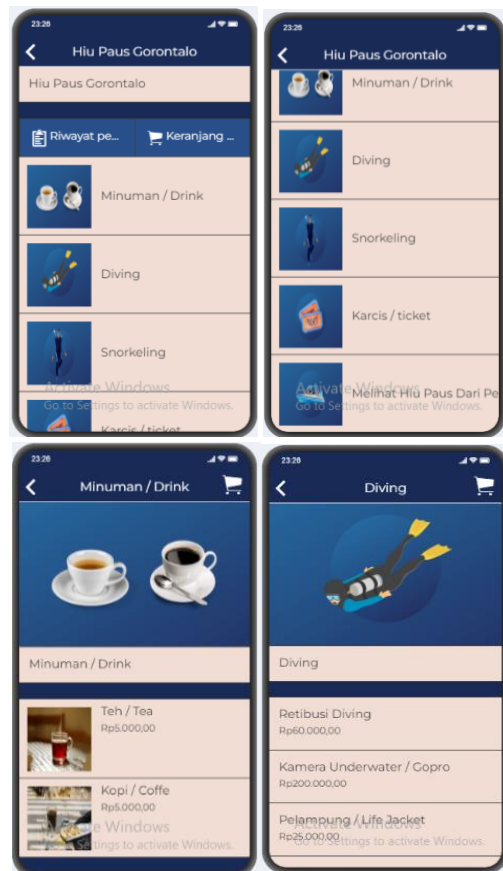**Figure 7.** Whale Shark Website Links and Visitor Data
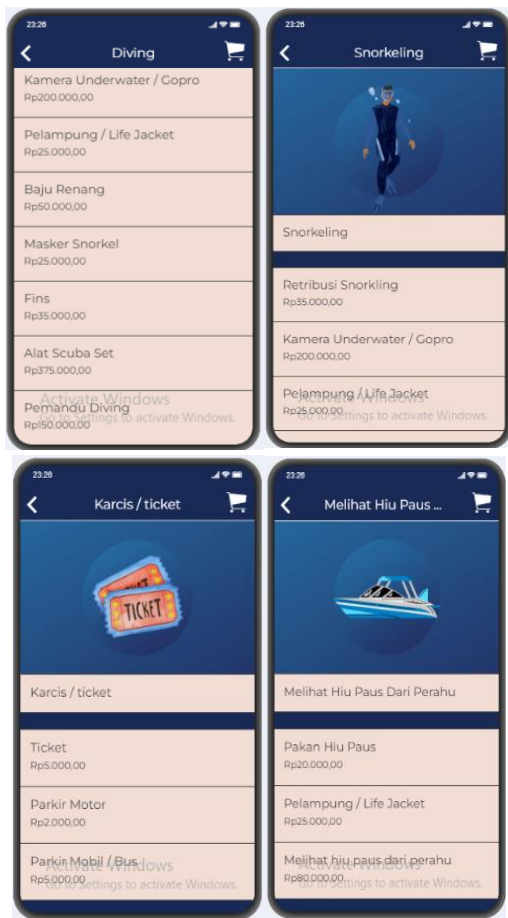

Figure 9. Options on the Booking Menu

Figure 10. Advanced Options on the Booking Menu

On this page tourists can choose a choice of tour packages offered by whale shark tourist destinations. Below is a tutorial on booking tour packages that can be done in the application.
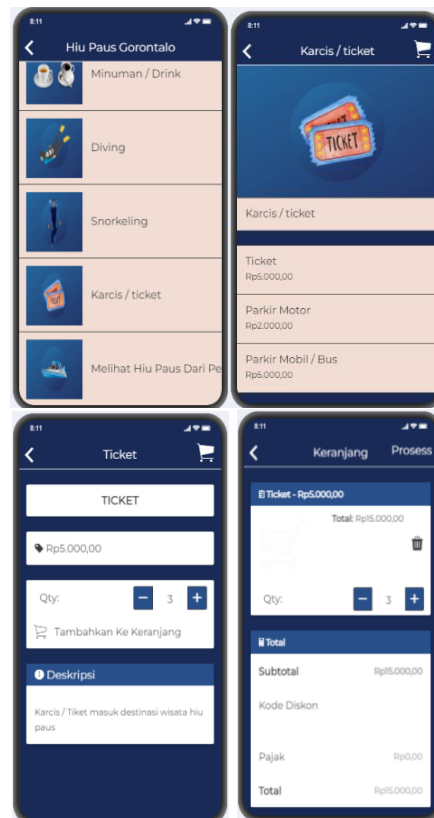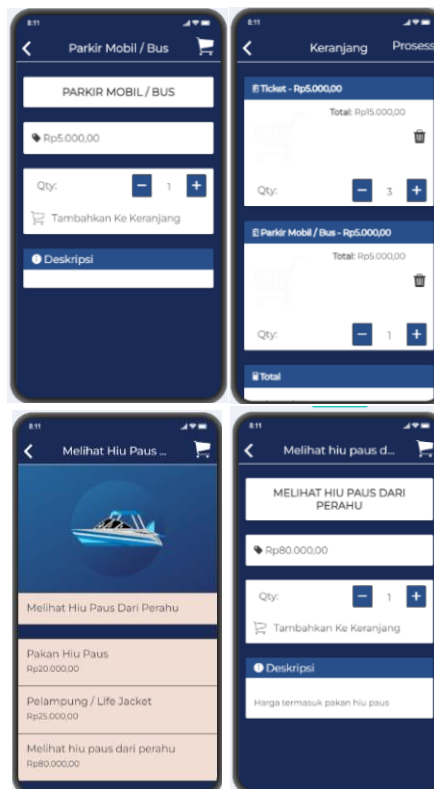

Figure 11. Booking Tutorial on the App

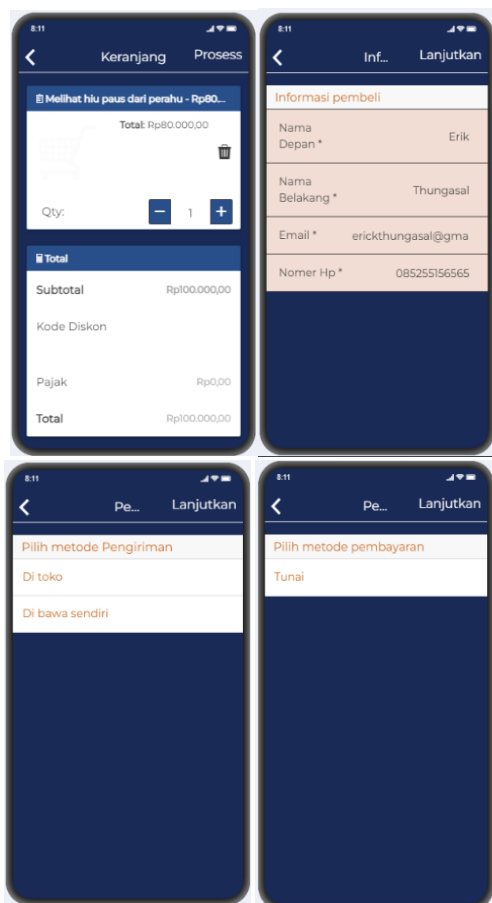**Figure 12.** Advanced Booking Tutorial on the App

Figure 13. Advanced Ordering Tutorial on the App

The picture above can be seen tourists can see the total payment that has been disrupted in the application, then buyer information, choose the delivery method (it is recommended to bring it yourself) because it is service / service, choose the payment method (only available cash / cash).
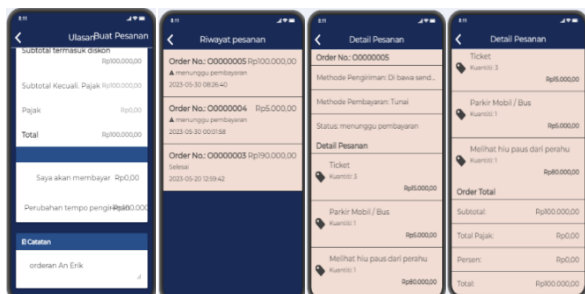

Figure 14. Order History and Order Details

In figure above, travelers can double-check their booking history and booking details.

f. Facility

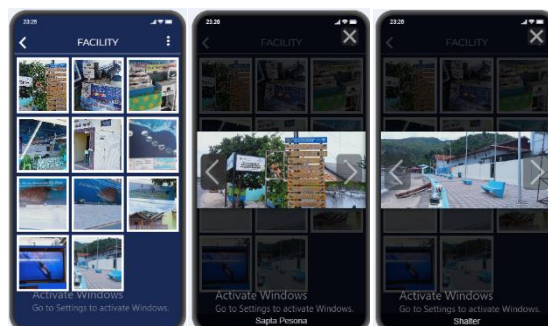This page contains photos of facilities located in whale shark tourist destinations.

Figure 15. Facilities of Whale Shark Tourist Destinations in Botubarani Village

g. Contact

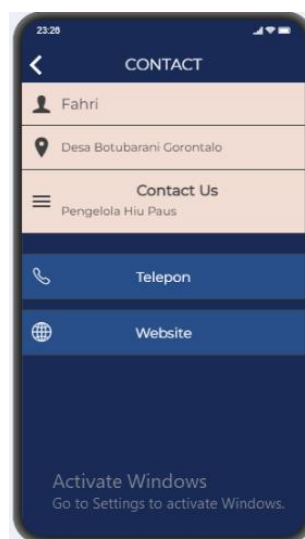The next page is the contact containing the manager number that tourists can contact

Figure 16. Contact

This research was conducted to develop an Android/iOS-based application that aims to promote whale shark tourist destinations in Botubarani Village, Bone Bolango Regency, Gorontalo Province. This application will provide information to prospective tourists and tourists who are in tourist destinations about the presence of whale sharks in Botubarani waters. In addition, this application will also present various facilities available in the whale

shark tourist destination. Another purpose is to make it easier for prospective tourists/tourists to book tour packages offered.

From the perspective of tourism managers and agencies, this application will also provide visitor data management features, which will help tourism managers and offices in monitoring and analyzing visitor data for whale shark tourist destinations in Botubarani Village. With the demographic information collected, managers can understand the profiles of travellers who visit the place, such as age preference, country of origin and job type. This data will be invaluable in designing more effective marketing strategies and providing services that suit the needs of visitors.

In addition to the visitor data feature, this application will also record gross income generated from whale shark tourist destinations automatically. This will help in managing and monitoring the finances of these tourist destinations. With detailed and accurate records, managers can conduct systematic financial evaluations and make better decisions in the development and management of whale shark tourist destinations.

The development of Android/iOS-based applications for whale shark tourist destinations in Botubarani Village has many benefits. In addition to providing information to potential tourists, facilitating bookings, and showing available facilities, this application also helps managers understand visitor profiles and manage tourist destination finances more efficiently.

CONCLUSION

The development of marketing media in this industrial work practice produces products in the form of android or iOS-based applications that aim to increase marketing promotion for whale shark tourist destinations, Botubarani Village, and Bone Bolango Regency. This media development uses a prototype method that uses an approach in software development that facilitates interaction between system developers and system users, with the aim of overcoming incompatibility between developers and users.

The results of this research provide advice to tourism destination managers, and the whale shark tourism office of Botubarani Village, Bone Bolango Regency, can apply sustainably related to android and iOS-based applications to be used as suggestions, promotions, marketing, and improving service quality in whale shark tourist destinations. For the tourism office, this application helps to find out the demographics of tourists and can help in recording gross income in whale shark tourist destinations.

The limitation of this research focuses on developing marketing media in the form of Android/iOS-based applications for the promotion of tourist destinations. The prototype method developed is expected to be refined in the future. Suggestions for the development of further research to explore the influence of android/iOS-based applications on tourist visits and explore their effectiveness in improving service quality.

REFERENCES

Abdullah, T., & Tantri, F. (2012). *Manajemen Pemasaran*. Jakarta: PT Raja Grafindo Persada.

Alghizzawi, M., Ghani, M. A., Som, A. P. M., Ahmad, M. F., Amin, A., Bakar, N. A., & Habes, M. (2018). The impact of Smartphone Adoption on Marketing Therapeutic Tourist Sites in Jordan. *International Journal of Engineering & Tcehnology*, *7*(4), 91–96.

Ali, H. (2013). *Marketing dan Kasus-Kasus Pilihan*. Yogyakarta: CAPS (Center for Academic Publishing Service).

Anugrah, K. (2018). Optimalisasi Usaha Kuliner di Obyek Wisata Hiu Paus Desa Botu Barani Kabupaten Bone

Bolango, Gorontalo. *Jurnal Pariwisata Pesona*, *3*(2), 191–204. https://doi.org/10.26905/jpp.v3i2.2463

Dogtiev, A. (2018). *App Download and Usage Statistics (2018)*. Business of App.

Galan, M., Lawley, M., & Clements, M. (2015). Social media's use in postgraduate students' decision-making journey: an exploratory study. *Journal of Marketing for Higher Education*, *25*(2), 287–312.

Gorda, A. A. N. O. S., Saputra, W. H. S., & Anggreswari, N. P. Y. (2020). Komunikasi Pemasaran Pariwisata Berbasis Digital (Studi pada Desa Sambangan Kabupaten Buleleng). *Ganaya : Jurnal Ilmu Sosial Dan Humaniora*, *3*(1), 1–11.

Gunawan, C., & Septianie, I. (2021). The Effect of Trust and Risk Perceptions Using E-Commerce on Consumer Purchase Intention. *Journal of Economics and Business (JECOMBI)*, *1*(3), 239–247.

Kiráľová, A., & Pavlíčeka, A. (2015). Development of Social Media Strategies in Tourism Destination. *International Conference on Strategic Innovative Marketing*.

Kotler, P. (2001). *Marketing management, millenium edition*. Prentice-Hall, Inc.

Kotler, P. (2012). *Manajemen Pemasaran Jilid 1, Edisi Kesebelas*. Jakarta: Erlangga.

Krippendorf, J. (2013). *Marketing et Tourisme*. Peter Lang International Academic.

Lutfiansyah, L. (2016). Penggunaan Aplikasi Mobile Pembelajaran Bahasa Inggris (Pengamatan Terhadap Sumber Belajar Berbasis Android Melalui Media Mobile Smartphone). *Eduscience*, *2*(1), 16-22. https://doi.org/10.47007/edu.v2i1.1545

Manyoe, I. N., Arifin, Y. I., Napu, S. S. S., & Suma, M. D. (2021). Assessment of the values of science, education, tourism and the risk degradation of Pentadio geothermal areas to developing geotourism in the Limboto Lake Plain, Gorontalo. *Journal of Physics: Conference Series*, 12047. IOP Publishing.

Mao, Y., Zhu, J. X., & Sang, Y. (2014). Consumer Purchase Intention Research Based on Social Media Marketing. *International Journal of Business and Social Science,* *5*(10), 92–97.

Mhamdi, C., Al-Emran, M., & Salloum, S. A. (2018). Text mining and analytics: A case study from news channels posts on Facebook. *Studies in Computational Intelligence*, *9*, 740.

Nugroho, J. S. (2003). *Perilaku Konsumen* (1st ed.). Jakarta: Prenada Media.

Pressman, R. S. (2012). *Rekayasa Perangkat Lunak. Pendekatan Praktisi* (7th ed.). Yogyakarta: Andi.

Salloum, S. A., Al-Emran, M., Abdallah, S., & Shaalan, K. (2017). Analyzing the Arab Gulf Newspapers Using Text Mining Techniques. *International Conference on Advance Intelligent Systems and Informatics*, 396–405.

Sanjaya, R., & Josua, T. (2009). *Creative Digital Marketing*. Jakarta: PT Elex Media Komputindo.

Saputra, D. H., Sutiksno, D. U., Kusuma, A. H. P., Romindo, R., Wahyuni, D., Purnomo, A., & Simarmata, J. (2020). *Digital Marketing: Komunikasi Bisnis Menjadi Lebih Mudah*. Yayasan Kita Menulis.

Tjiptono, & Chandra, G. (2012). *Pemasaran Strategik* (2nd ed.). Yogyakarta: ANDI.

Zanjabila, R., & Hidayat, R. (2017). Analisis Pengaruh Social Media Marketing Terhadap Keputusan Pembelian Bandung Techno Park. *eProceedings of Applied Science*, *3*(2).