

ENHANCING MARINE TOURISM IN SABANG, ACEH WITH THE AQUA EXPLORE APPLICATION

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Abstract

Sabang, Aceh is known as one of Indonesia's leading marine tourism destinations, offering stunning underwater beauty and a diverse marine ecosystem. However, limited information and accessibility often pose challenges for tourists who want to fully experience Sabang's marine tourism potential. This study aims to explore the role of the Aqua Explore digital application in enhancing marine tourism experiences in Sabang. Aqua Explore is an application designed to help tourists discover and access information related to snorkeling locations, equipment rentals such as snorkeling masks, snorkels, life vests, swimwear, and fins, as well as restaurant recommendations offering Sabang's local cuisine.

This research employs a qualitative method with in-depth interviews with sources, including tourists who use the application and local tourism service providers. The results show that the use of Aqua Explore facilitates access to information, increases tourist satisfaction, and supports environmental conservation efforts through eco-friendly tourism guidance. Therefore, the application of digital technology like Aqua Explore helps tourists plan and maximize their vacation experiences more effectively.

Keywords: Marine Tourism, Snorkeling, Prototype

A. INTRODUCTION

Indonesia with its beauty and culture, has various tourist destinations that attract tourists from all over the world. This can be seen from the Indonesian tourism sector which continues to advance and develop rapidly. The rapid development of the tourism sector is increasingly visible from the many achievements of Indonesia that have been recognized by the world, one of which is many diving spots in Indonesia have been recognized by the world, for example on Misool Island, Raja Ampat. One of the paradises in Eastern Indonesia has a third of the world's coral. That is why, we can find many marine biota under the sea of Misool Island, such as various types of ornamental fish, turtles, sharks, and coral reefs. Tourism is a journey that people take temporarily, which is organized from one place to another leaving their original place, with a Planning with the intention not to try or earn a living in the place visited but solely to enjoy sightseeing and recreation activities or fulfill various desires (Richard Sihite in Marpaung and Bahar, 2000).

Indonesia is the 14th largest country and the largest archipelagic country in the world with an area of 1,904,569 km², Indonesia consists of 38 provinces stretching from Sabang to Merauke. Each province has its uniqueness and beauty, with diverse cultures, traditions, and natural wealth, Indonesia offers a variety of experiences for travelers, one of which is Aceh Province, precisely in Sabang. Aceh is one of the provinces in Indonesia located at the northern tip of the island of Sumatra. Aceh is very well known for its rich culture, history, and natural beauty. Aceh Marine Tourism Park is a destination that amazes visitors with the beauty of the underwater world. Beautiful beaches, magnificent coral reefs, and marine biodiversity are the main attractions of this park. Not only in Aceh, Sabang also has enchanting marine beauty located on Weh Island, this city offers a unique experience with a combination of beautiful landscapes with its strategic position in the Strait of Malacca. This city is known as Marine Tourism, which offers stunning sea views and spectacular coral reefs. A place where natural beauty meets amazing biodiversity. For this reason, tourists are required to go on a snorkeling adventure that will take you to a colorful world, where diverse fish and enchanting coral reefs await to be explored.

The Aqua Explore application is here as a new innovation that offers a practical and efficient solution for visitors who want to explore the beauty of the sea without having to bother bringing snorkeling equipment from home. Through this platform, users can easily rent various types of snorkeling equipment, from masks and snorkels to fins and wetsuits. This application is also equipped with information about interesting culinary delights in Sabang Aceh, as well as tips for enjoying a safe and enjoyable snorkeling experience.

With easy access and information provided, Aqua Explore not only supports local tourism but also raises awareness of the importance of preserving the marine environment. Through an environmentally friendly approach, Aqua Explore is committed to providing a memorable snorkeling experience while supporting the preservation of the marine ecosystem in Sabang

B. RESEARCH METHOD

The research method used in the paper is a mixed-methods approach, combining both quantitative and qualitative data collection techniques, Hirose, M., & Creswell, J. W. 2023.

Quantitative Data Collection:

1. **Questionnaire Surveys:** A questionnaire was distributed to tourists using the Aqua Explore application, gathering numerical data on their experiences with snorkeling equipment rentals and local food recommendations. This approach helps quantify satisfaction levels and preferences, providing measurable insights into how the application enhances the tourist experience (e.g., 85% of respondents reported satisfaction with the snorkeling rental service).
2. **Observations and Interviews:** The study also includes qualitative data through observations conducted via Zoom meetings with local residents of Sabang. These interviews provided in-depth, narrative insights into the perceptions of the local community about the application's role in promoting tourism and enhancing the visitor experience. The residents' responses offer valuable context on how the app is perceived and its potential impact on the local economy and tourism infrastructure.

"Mixed methods research is an approach to inquiry that combines or associates both qualitative and quantitative forms of research. It involves the collection, analysis, and interpretation of both types of data, either simultaneously or sequentially, in order to better understand a research problem." Creswell & Plano Clark (2018)

"Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. It is a methodology for conducting research that involves collecting, analyzing, and interpreting both quantitative and qualitative data in a single study or a series of studies." Tashakkori & Teddlie (2010)

"Mixed methods research is the use of both qualitative and quantitative approaches in a single study to provide a fuller perspective on a research problem, involving the integration of data from both types of inquiry and the interpretation of that data." Fetters, Curry, & Creswell (2013)

C. FINDINGS AND DISCUSSION

This study used a questionnaire method to collect data from tourists who use the Aqua Explore application and observations conducted through Zoom meetings with several residents of Sabang. The questionnaire filled out by tourists showed that 85% of respondents felt helped by the snorkeling equipment rental service that was easily accessible and facilitated their tourism activities. Direct observation of application users revealed that the local culinary recommendation feature played a positive role in introducing Sabang's specialties. Tourists who used this feature seemed more involved in exploring local cuisine, with most of them interested in trying more than one recommended place to eat.

The combination of snorkeling equipment rental services and food recommendations in one application has proven to be a practical solution for tourists. This study supports that Aqua Explore is able to increase tourist satisfaction while promoting Sabang's local wealth.

The observation was carried out through a zoom meeting with one of the local residents in Sabang. During the observation session via Zoom with local residents, several questions were asked to gain deeper insight into the local community's perception of this application.

are the questions and summary of answers from the session:

1. How often do you see visitors having difficulty getting snorkeling equipment in Sabang?

Answer: "So far, seeing the enthusiasm of tourists visiting Sabang is quite high. I often hear that tourists do not get snorkeling equipment rentals, especially tourists who do not use travel services. During the holiday season or weekends, demand is quite high, so sometimes there are those who have to look for several places but do not get snorkeling equipment rentals which makes their vacation less enjoyable."

2. What is your view on how important the snorkeling equipment provision application is for tourists visiting Sabang?

Answer: "I think it is quite important of course, considering that the era is getting more sophisticated, this application makes it very easy for tourists visiting Sabang to snorkel because Sabang has quite a large marine tourism attraction. This application is very helpful for tourists, especially backpacker tourists who plan their own trips without using travel services."

3. Do you feel that this application will help facilitate access for local and foreign tourists?

Answer: "I think this application is very helpful, especially for foreign tourists who may be less familiar with Sabang. With information in one application, they can more easily find snorkeling equipment rental places, as well as recommended local food options. This reduces confusion and increases their comfort during their visit."

4. What do you think, can this application help promote tourism in Sabang?

Answer: "In my opinion, this application has great potential to promote Sabang. With information about snorkeling spots and local cuisine, this application can attract tourists from various regions and even abroad. Many people now search for tourism information through applications, so this could be the right step to introduce Sabang more widely."

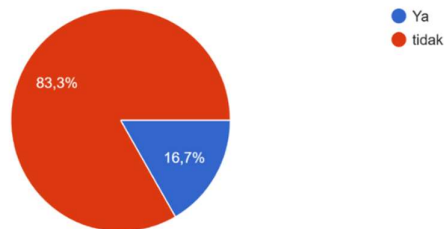
5. If you want to give suggestions for the development of this application, what would you like to say?

Answer: "So far this application has been very good, It would be good to provide a food ordering feature to make it easier for tourists who may not have much time to queue at restaurants. If a choice of diving packages is added, especially those that include guides, complete equipment, and transportation, this application will be more in demand because it helps tourists plan their activities more efficiently."

DIAGRAM QUESTIONNAIRE

Apakah anda pernah menggunakan aplikasi penyewaan alat snorkling lain sebelum aqua explore?

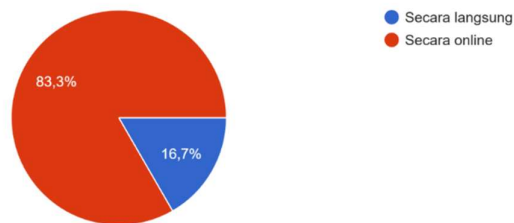
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Reason: (No) because maybe other apps are not available in their location or are not known in that Location. Or users prefer to use certain apps that they are already familiar with or have positive service with services like aqua explore.

Menurut anda lebih mudah menyewa alat snorkling secara langsung atau online?

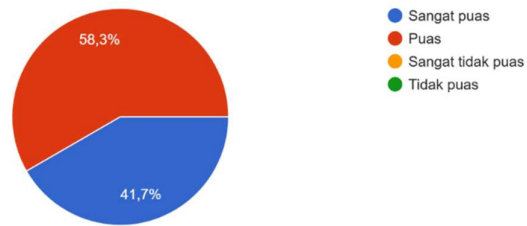
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The reason: (online) because of the ease and convenience you can make reservations anytime and anywhere without having to go to a physical location. This is very practical if you have planned a trip and want to make sure the equipment you need is available.

Apakah anda puas dengan variasi alat snorkling yang tersedia di aplikasi ?

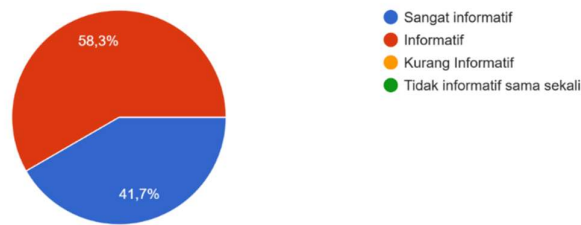
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Reason: (satisfied) because a variety of good tools and applications usually offer various types of snorkeling equipment, ranging from masks, snorkels, and fins. With a complete variety, users can choose the tool that suits their preferences and needs.

Seberapa informatif deskripsi dan gambar alat snorkling yang ditawarkan ?

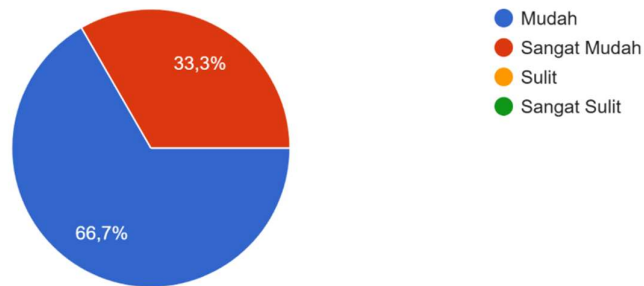
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The reason: (informative) because the aqua explore application provides detailed information about product specifications, and clear and representative images. And maybe reviews from other users, the description and images of the product are very informative.

Apakah anda mengalami kesulitan saat melakukan pembayaran ?

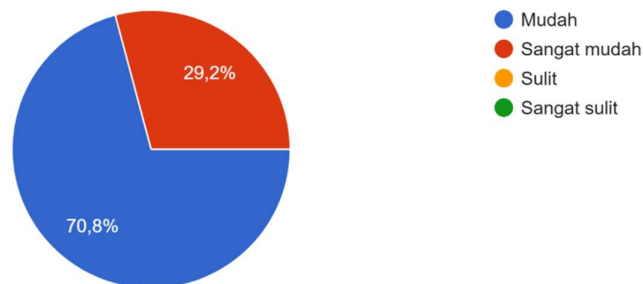
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The reason: (easy) because the Aqua Explore application provides various payment options, such as credit cards, Gopay, Ovo, Quris, funds, or bank transfers, providing convenience for users who have different preferences.

Bagaimana pengalaman anda saat pertama kali menggunakan aplikasi ini?

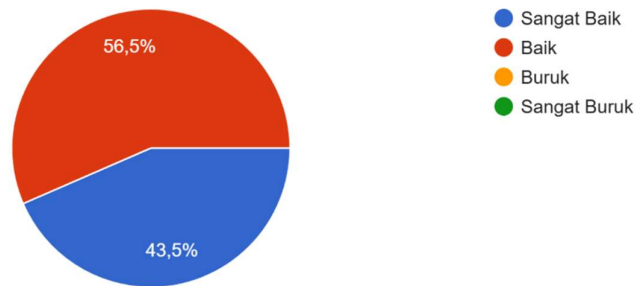
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The reasons are: (easy) because of the fast registration and login process, clear guides and tutorials, diverse and easy-to-understand options, smooth payment process, direct confirmation, and assistance.

Seberapa baik Layanan pelanggan yang anda terima jika anda menghubungi aqua explore?

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Reasons: (very good) because of fast and efficient response, responsiveness to problems and complaints, friendly and professional communication, availability of various channels, satisfactory problem solving, adequate follow-up if Aqua explores contacts you again to ensure that the problem has been resolved or to ask for feedback.

Customer suggestions to improve aqua explore snorkeling equipment rental services.

To improve snorkeling equipment rental services, focus on cleanliness and equipment maintenance, provide a variety of quality sizes and types, offer flexible rental packages at attractive prices, add guide services and underwater camera rentals, and provide comfortable facilities such as changing rooms, lockers, and showers so that customers feel safe and get valuable experiences during snorkeling.

How likely are you to recommend Aqua Explore to friends and family?

= Some reasons that can underlie the decision to recommend aqua exploration.



- Meaning of Aqua Explore

AquaExplore" combines two main elements: "Aqua" which refers to the air element, especially the vast ocean, and "Explore" which reflects the spirit of exploration and discovery. A depiction of exploring the beauty beneath the surface of the air, both physically and philosophically. This philosophy encourages individuals to view life as a continuous journey, where every moment is an opportunity to explore, learn, and grow. "AquaExplore" invites you not only to dive into the physical ocean, but also into the ocean of knowledge, experience, and understanding that continues to grow. Thus, this name becomes an encouragement to live life with a spirit of adventure, explore the uniqueness of the world, and understand the values of beauty that exist around us.

- Meaning of Colors

Here is the meaning of the dark brown color in the logo of the snorkeling equipment ordering application, namely depth and stability. Dark brown is often associated with strength and durability, giving the impression that the application is reliable. Connectedness to Nature: This color reflects natural elements, such as earth and wood, which can emphasize the snorkeling experience that is close to nature. Sustainability: If the application has a focus on environmental sustainability, dark brown can symbolize a commitment to preserving the ocean and ecosystems. Overall, dark brown can create a positive and attractive impression for users looking for a snorkeling experience. Mocca Reflects warmth and closeness to nature and gives an elegant and comfortable impression. White symbolizes cleanliness, simplicity, and clarity, which can describe the ease of use of the application. Pink Salmon Implies cheerfulness and freshness, creates a pleasant and attractive atmosphere, and highlights the beauty of the underwater world. This color combination can create an attractive and friendly image for users.

SWOT Analysis of Aqua Explore Digital Application

• Strengths

1. Rental, culinary tour recommendations
2. Ease of planning a trip
3. Meeting the needs of tourist destinations
4. Easy booking

• WEAKNESSES

1. Inadequate facilities
2. Snorkeling equipment rental prices have increased drastically
3. Competitors have better technology

• OPPORTUNITIES

1. Interest in underwater adventures is increasing
2. Becoming an application that is in demand by tourists
3. Collaboration with the surrounding community
4. Better known by the wider community

• THREATS

1. Weather and sea conditions are not possible
2. Competitors with cheaper prices

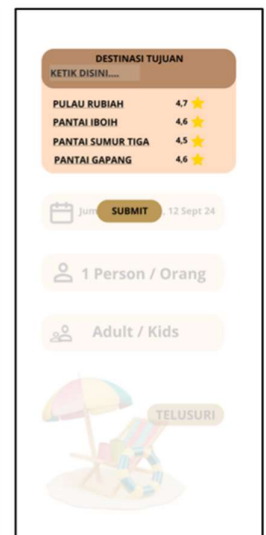
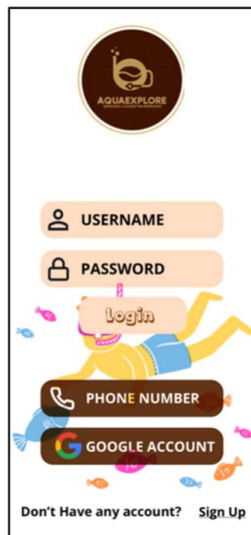
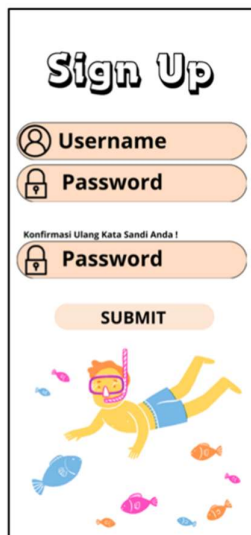
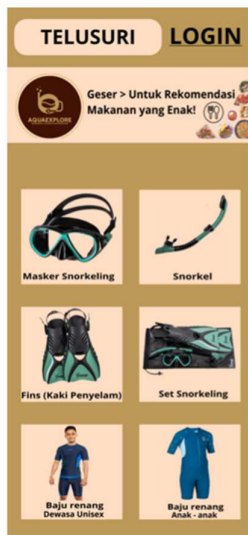
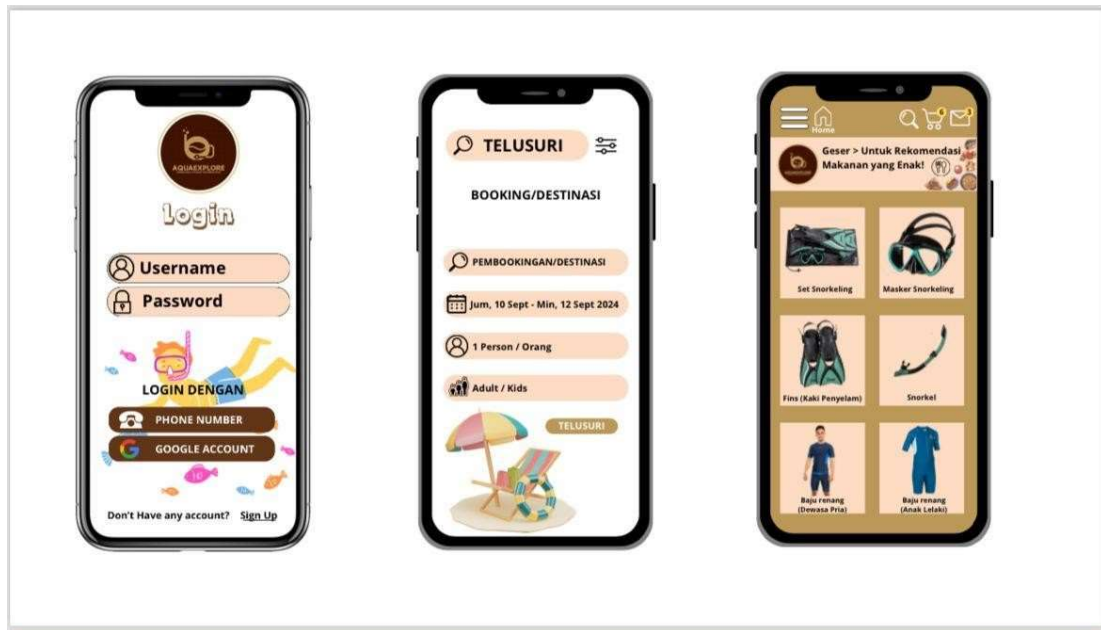
Nama bisnis dan merek produk: Aqua explore

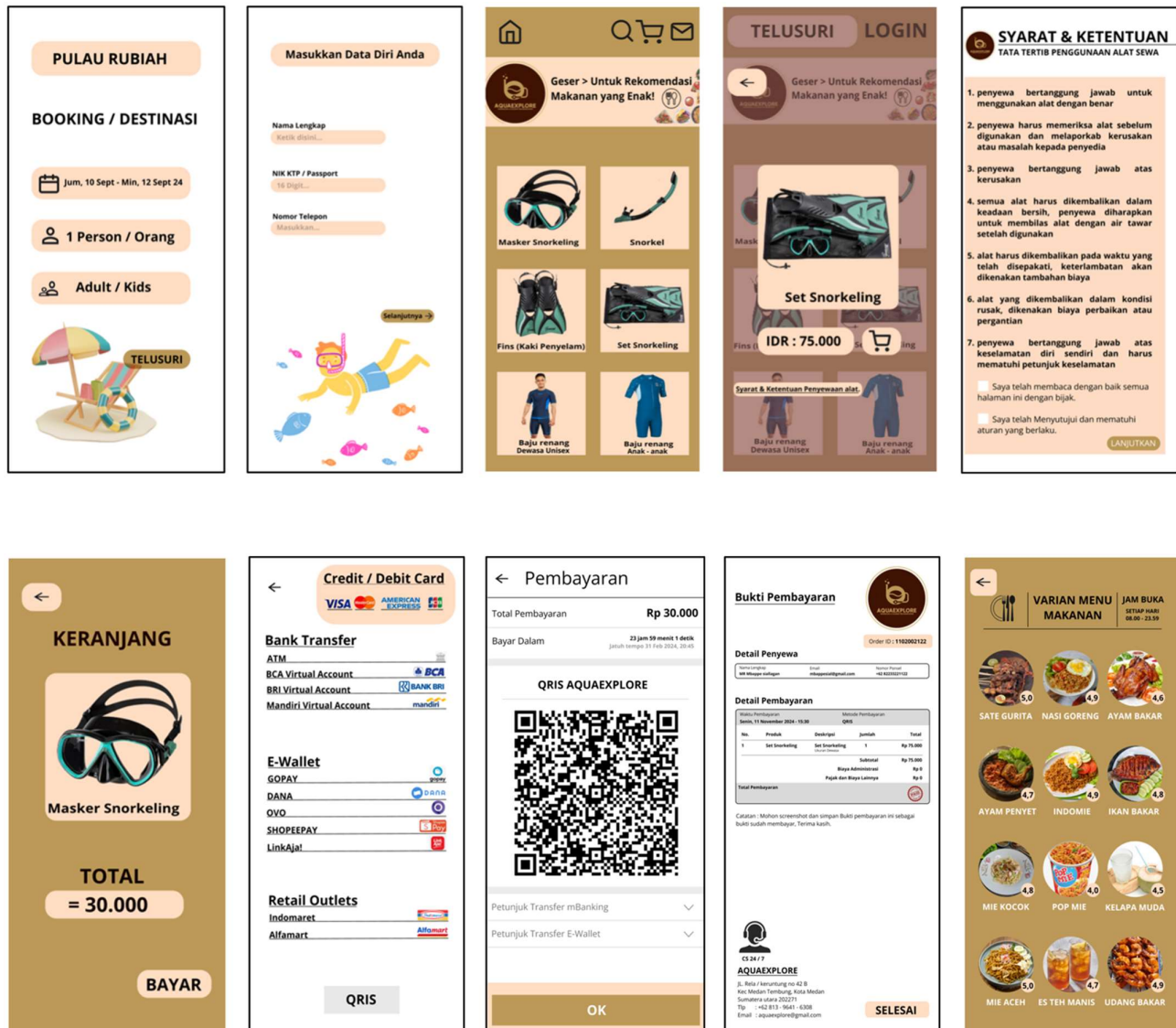
Deskripsi problem: kualitas alat snorkling yang disewakan, dan kurangnya pilihan kilner lokal

Deskripsi bisnis dan solusi yang ditawarkan: peningkatan penyediaan alat snorkling, dan kolaborasi dengan restoran lokal

Key Partners  Model: Buyer-seller relationship Motivation: advancing marketing and improving the regional economy Penjelasan singkat: Memberikan harga yang umum dan terjangkau agar tidak terjadinya kenaikan harga drastic apabila wisatawan bukan berasal dari lokal, melainkan mancanegara, karena telah bekerja sama dengan pihak yang bersangkutan	Key Activities  Model: Production Problem solving Penjelasan: Menyediakan platform website untuk informasi ketersediaan alat snorkling pemesanan tiket wisata dan kuliner dengan hasil yang akurat dan terhubung dengan agen penyedia di lokasi	Value Proposition  performance usability accessibility price getting the job done penjelasan: menyediakan service chat agen 24 jam untuk pem bookingan dan pembayaran dengan harga yang sangat terjangkau dan akses yang sangat mudah digunakan untuk semua kalangan	Customer Relationships  1. Hubungan self service -dimana pelanggan dapat mencari informasi tentang penyediaan alat snorkling, kuliner, dan destinasi ini melakukan transaksi mandiri	Customer Segments  Model market: Market mass Penjelasan: Profil segmen yang di target Milenial pecinta petualangan, yang gemar berlibur di destinasi Pantai eksotis, mencari pengalaman snorkling, destinasi wisata, kuliner lokal yang autentik
Cost Structure  Economy of scope -keuntungan biaya yang diperoleh karena skala operasi yang sangat besar	Revenue Streams  -Streamsm model =asset sale dan usage fee Penjelasan: Pendapatan pemasukan asset sale dari produk dan jasa yang telah kita berikan kepada konsumen			

3. Changes in government regulations that have a negative impact on this application





Sumber : Dokumentasi dari Penulis

FITUR APLIKASI DIGITAL AQUA EXPLORE	DESKRIPSI
user registration	New users register and create an account on the application by filling in personal information.
search menu	Users enter their travel destination, travel dates, number of travelers, and other preferences to search for snorkeling equipment rental booking options.
Selection of snorkeling equipment	Users can choose the desired snorkeling equipment ordering options.
Local food recommendations	No need to be confused about what to eat, users can take advantage of this feature by looking at food recommendations on our website which always serves different foods and drinks (breakfast, lunch, or dinner).
Constumer Service	The app provides customer service to answer questions or assist users with travel issues.
Promotion	Placing promotional advertisements for snorkeling equipment rentals at affordable prices and attractive promotions that users can see when they open the application.
Review and Feedback	After finishing using the snorkel equipment rental service, users can provide reviews and input regarding their experience so that by providing feedback, the Aqua Explore digital application developer can revise the available features.
Payment	Users make payments using various payment methods provided by the application.
Terms and Conditions	Users can view the terms and conditions that apply to snorkeling equipment rental before making a booking.
Proof of payment	After making the payment, the user will receive proof of payment which will be shown as proof of having made the booking and payment.

Sumber : Dokumentasi dari Penulis

D. CONCLUSION

Along with the rapid development of information technology, the use of mobile applications for the tourism sector is increasingly relevant. Aqua Explore not only provides convenience in ordering snorkeling equipment but also functions as a platform that supports the promotion of nature tourism in Sabang more widely. Users can easily search, order, and evaluate available snorkeling equipment, which of course also supports the sustainability of tourism by reducing the potential for environmental damage due to misuse of snorkeling equipment.

The existence of this application is expected to introduce Sabang as an environmentally friendly and well-managed marine tourism destination. In addition, this application can also provide economic benefits for local snorkeling equipment providers, create business opportunities, and strengthen the digital ecosystem in the tourism sector. Overall, Aqua Explore is a positive step in utilizing technology to improve the quality of tourism services and promote nature tourism in a more efficient and environmentally friendly way in Sabang.

Suggestion Collaboration with Local Entrepreneurs and Tourism Institutions: The government can facilitate collaboration between local entrepreneurs renting snorkeling equipment and Aqua Explore application managers. This collaboration will expand the service network and improve the quality of available tools. The government can also train local businesses to use applications and manage rental services more efficiently.

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