Social Media Platform for the Travel and Tourism Industry in Sri Lanka

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ABSTRACT As the industrial society of the twentieth century gives way to the information society of the twenty-first century, the modern world is undergoing a major transition. This dynamic process has the potential to fundamentally alterall parts of our life, including knowledge distribution, social interaction, business practices, political activity, media, education, health, leisure, and entertainment. Travel industry software applications play a significant role intourism and travel industry by contributing to a large volume of transactions and revenue. Many studies have evaluated tourism websites through different research methods. Website usability, in general, has improved dramatically but problems are still remaining. Very few studies focus on the use of software applications and features of need to develop in the Sri Lankan context. This research uses a mixed-methods approach. The survey results show that tourism and travel industry software applications search is regularly utilitarian in nature; the complex interface and not having one platform includingmore features either obscure or were ignored by most tourists while decreasing the satisfaction of that travel industry software applications. This research paper discusses the existing systems and their software applications, additional features, and satisfaction rates of these software applications, and suggest modern software application for that industry in Sri Lanka.

KEYWORDS: Features, Modern social media platform, Satisfaction, Software application, Sri Lanka, Tourism and travel industry

I. Introduction

The travel and tourism industry represents one of the most important sectors of the world's financial system. Travel has become a normal activity in our lives. The tourism industry itself is made up of parts of transportation, accommodation, food and beverage, retail trade, entertainment, and other industries. Tourism is one of the fastest-growing industries around the world. It contributes approximately 9% to the global GDP and has created millions of employment opportunities. Sri Lanka too is striving to get the maximum benefit from this growing business. But it is obvious that there was no clear national policy to develop the tourism industry in the country even after gaining independence from the British in 1948. Recently, Sri Lanka has had some automated systems, but these are not successful because tourists use the manual processes of tourist travel plans and guides.

Mostly the internet has become a valuable part of people's lives because of the current pandemic situation. Most people now are adopting the software application aspect. The benefit of technology is that it has facilitated globalization. The globe hasbeen constricted into one small village. People are linked together via internet networks and social media. With a single mouse click, information is sent at a quicker rate. Software applications are given many benefits. Making all bookings easily at one application, the most attractive rebates, and Customized Services, give more benefits like effective marketing tools, decreasing paperwork, getting a real view of tour destinations, and Simplify Transactions are the main target benefits of travel software applications in the tourism industry. The main objectives of the research were,

- Analyzing the challenges faced by tourists while in Sri Lanka.

- Examine the feedbacks and comments of the current and existing developments.

- Analyzing the opinion on modern social media applications and designing architecture for implementing a mobile application.

The research will highlight the multifaceted development of tour travel for improving an automated travel planning system for tourists. The sections that follow will look into how it could be enforced, the suitability of such a system in Sri Lanka, and the technical specifications of just such a system that will be developed. The further aim of the research paper is to analyze the software application success rate in the travel and tourism industry and implement a suitableapplication for that industry in Sri Lanka.

This will not only ease the commuters but also the government

due to database management in the system. The survey conducted in this paper reveals the problems in the traditional tour guide system in Sri Lanka. The research questions are: what are the currently existing solutions and technologies?, what is the customer feedback and satisfaction about current existing solutions?, what are the drawbacks in existing solutions?, and what are the recommendations by customers for further developments? After analyzing that and implementing the application. The review paper section identifies what kind of applications that are currently in existence and the relationship between social media and the impact of that researcher implementing the application.

This study also illustrates the existing problems of the tourism systems, customer satisfaction rate, development features, and further improvements.

II. Literature review
A Current situation in tourism

According to this research, the researcher has found that the Tourist nights spent in Tourist Hotels are gradually declining while tourist nights spent in supplementary establishments and unregistered accommodation units and private houses is increasing, which indicates the change of preferences in terms of tourist accommodation. [1]

According to this research, the researcher presented a comprehensive historical narrative of Sri Lankan tourism and discusses how Sri Lanka has lost chances in the past, as well as an introduction to Sri Lanka, including its location and natural features. The second section addressed creating a Computable General Equilibrium (CGE) model concentrating on tourism and building a database with a tourist focus. More introductions to Sri Lanka, including its location and natural wonders the historical study emphasizes future tourist aspirations and potentials in Sri Lanka. The third segment looked at the long-term economic implications of Sri Lanka's post-war tourist boom [2].

As reported by this research article, the researcher shows that e-tourism information search is primarily utilitarian in character, with most users being confused or ignoring the complicated interface and advertising messages. Highlighted the advantages and disadvantages of both traditional and internet travel companies furthermore, there are when deciding on the ideal choice, it is critical to consider which ones provide the discounts, products, and services that a traveler seeks as the agents of travel. Finally, consider how to become more competitive through more effective use of information technology, as well as discuss how customer decisions may be influenced by the perceived value of the services required [3].

This research prioritizes covers the arrival of new technology utilized in travel communication tools, as well as fresh ideas on how to use them in Sri Lanka. Further, this researcher intends to introduce a number of subjects in the development of this

smartphone application model. This research was made possible by Sri Lanka tourism, smart travel & e-tourism, tourism promotion, and mobile phone applications [4].

This article examined the factors that contributed to the positive perception of the travel destination and the relationship between tourist perception and satisfaction with the Nuwaraeliya holidays. Furthermore, the empirical results provided reliable evidence that tourist perception influences tourist satisfaction. Tourists choose a specific destination based on their travel expectations and other expected tangible and intangible benefits. After reaching the destinations, tourists as consumers experience many different products and services.

That research examines the push and pulls variables that impact tourists' decisions to visit Sri Lanka and categorizes them as primary, secondary, moderately influenced and least influenced factors. Rest and relaxation, escape from a demanding job, being away from a monotonous life, experiencing new living styles, seeking information, and so on are among the most impacted push motives, according to the author. Natural beauty, diversity of flora and fauna/diversity of attractions, Sri Lankan culture, Buddhism, archaeological and historical monuments, and sandy beaches, according to the author, are very important in people choosing Sri Lanka as their vacation destination [6].

This research prioritizes travel agents are specialists who can assist travelers with all of their travel arrangements. Despite the widespread usage of the internet for travel-related services, travel agents are still required in some situations. People who wanted to travel engaged travel agencies or travel agents to help them prepare for their planned journey years ago when the internet had not yet reached its current state and condition [7].

The people that organize and plan vacations for their clients are known as travel agents. They are quite beneficial to travelers. These days, a lot of tour and travel businesses are giving attractive packages to passengers. Travel agents are those that organize all forms of transportation and lodging for travelers. A tours and travels agency arranges the selling and buying of travel and other associated services [8].

According to this research, the researcher gives an evaluation of how consumers use mobile tourism apps and how they use those apps to guide customer intentions to visit tourist places. This research proposes a model for a novel travel communication mobile application that combines virtual reality and augmented reality technologies with multimedia information techniques to create a tourism mobile phone game. The various management consequences, such as apps as different marketing tools, increasing attitudes toward using tourism applications, and segmenting clients to build marketing strategies, are all taken into consideration [9].

B   Applications of social media in the Tourism Sector

Social networks' position has been gradually explained and studied as an emerging topic in the tourist sector. The phrase "Travel 2.0" refers to a novel idea that highlights the growth of social media's relevance in travel and current investments in thetravel sector [17]. Social media is fetching more and more vital inseveral facets of travel and tourism, particularly when gatheringmaterial, providing decisions, and marketing travel, with animportance on the finest tools for connecting with users on socialmedia platforms [18]. In addition to having an impact on visitorconsumption patterns, social media's development has had animpact on the field of tourism and hospitality research. Researchers have acknowledged for the past 20 years that, social media is crucial for travelers to choose and organize their vacation [19]. In current, an admirable method has been proven to feature social media to offer tourism services. Social media is seen as a key instrument by many nations and governments to boost their vacationer's economies. The social media advertising approach of a company outlines how it uses social media platforms to achieve its marketing objectives. The company's business plan may be built upon and changed as a result of the market and customer insights provided by the social media strategy. The tourism businesses case study on the application of social media advertising indicates that the commercial idea is currently not completely executed. Based on their studied plan for using social media providing to sell their business, the corporation has to make further decisions about how to best utilize the marketing tools at their disposal to attract new clients. Social media can act as a promotional tool, and individuals and industries use it to reachpotential tourists [20]. Social media raises awareness of destinations, reaches the masses, encourages travelers to plan their trips, enhances the image of destinations as selected destinations, and targets new/specific markets, and visitors. Increase the number of Facebook likes has become the goal, which can be used to spread the number of positive reviews that generate a buzz [21].

C   Relationship between Tourism and social media

Marketers can analyze customer satisfaction. The impact of traveler-generated gratification via social media influences traveler travel planning. Many conference papers have also shown the impact of social media on the sector. The proposal reveals that traveler reviews on social media sites can help make the customer's travel plan-making process more enjoyable [22]. In addition, it works by growing confidence in the decisions of individuals, especially travelers, and reducing the risk of unknowns or uncertainties. According to this researcher[23], social media facilitates satisfying customers. In addition, the state came from a way to share customer feedback with lots ofpeople, with importance on positive reviews. This is established as "the best ad you can buy with money". A researcher reported that 82% of US customers searching for travel site reviews online are searching for travel related to the travel-planning process. However, publications on applications such as Facebook do provide a star rating based on the overall understanding. In addition, organizations need to analyze the words their customers use [24]. Online reviews not only attract and repel people but also provide knowledge and help you imagine your goals [25].

Social media and social networks behave like important advertising tools and carry out several areas. These tools typically deliver users with a platform for getting guidance on products and services. In addition, customers can raise awareness; think about travel experiences, and share travel accounts. Similarly, the benefit to a company is to market its objective, increase brand loyalty, and provide opportunities to augment long-term relations [26]. Making use of social media as an advertising tool is extremely valuable as it gives your organization a competitive advantage over its competitors.

When the researcher before writing a paper collects the related others titled also. Then researcher identified some critical relationship points between social media and the travel and tourism industry.

D   Impact of social media in the Tourism Sector

The point, Facebook has a substantial impact on traveler choices, particularly in the travel industry. According to research done in 2012, more than 90% of consumers' worldwide claim to trust and believe suggestions made by colleagues, such as word-of-mouth. In addition, the potential client will be impacted by ideas and reports made on social media [27].

According to research, businesses that partner with customers who leave online reviews see an increase in customer loyalty [28], and social media improves client satisfaction [23]. Researcher define businesses that partner withcustomers who leave online evaluations increase client churn [29]. Companies that hire people who leave online evaluationsget a competitive advantage [30]. In further studies, eWOM and reviews influence customers' booking decisions. The decision to reserve a room is influenced by the majority of favorable evaluations [31]. It is believes that businesses that use social media build lasting ties with both current and potential customers [32].

Social media affect travel in various aspects. Positive remarks will highlight consumer satisfaction and positive experiences, and negative remarks will highlight negative experiences and disappointments. Therefore, it is crucial to examine the impact of unfavorable remarks on the destination's reputation and traveler choices. Travel selections are significantly influenced by social media. Additionally, the remarks and opinions made in the tourism industry on social media will be tied to the potential customer.

Social media also affected customer service, which resultedin happy customers. Social media presence helps businesses respond to client complaints and issues. Additionally,

responding to consumer complaints aids in building brand loyalty for businesses. The core of customer service is this. In order to improve consumers' perspectives, one technique is to underline how important they are. Additionally, this social media format, which is classed as a single piece of material, turns into a topic of conversation amongst many users. However, negative connections will occur if social interactions, as seen in social media relations like shares, likes, and comments, are the norm. This unfavorable information will reach potential buyers in addition to followers. As a result, social media has a "called effect" on certain travel-related industries. As a result, over-tourism and grant to overcrowding. The addressing issue of over-tourism through careful further planning and a multi-activity, multi-sponsor style appears to be the best course of action [33]. Therefore, the tourism and travel industry need specific social media for theirs.

E   Feature comparison

Sri Lanka currently has no specific social media platform for the travel and tourism industry. But that industry has some applications. Those applications have some feature problems. The proposed system has some main features in one application.

Table 1-Summary of Feature Comparison

	Official website of Sri Lanka tourism [1]	Sri Lanka Travel Guide [2]	Trivago [5]	Viator [6]	Eco Sri Lanka [7]	Tourpal Travel Guide & Tours [10]	Impoto [11]	Goibibo [13]	PickMe [14]	TripAdvisor [15]	Booking.com [16]	Google Map [17]	Travel Guide [18]	Telegram [19]	You tube [20]	Traveller [Project]
Ability to download the mobile application			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ability to read Guidelines													Have			✓
Ability to check the guide with high accuracy								✓					only			✓
Ability to rate services or places			✓	✓			✓	✓	✓	✓			read			✓
Ability to add comments about places or services			✓	✓	✓			✓	✓				option			✓
Ability to find top-rated places with ease			✓					✓	✓				travel			✓
Ability to book services			✓	✓		✓	✓	✓	✓	✓	✓		places			✓
Ability to get transportation services	✓	difficult	✓			✓	✓			✓						✓
Ability to watch travel-related videos		✓													✓	✓
Ability to connect with service providers directly	✓				✓			driver only								✓
Ability to chat with others														✓		✓
Ability to get travel plans								✓								✓
Ability to connect with Guiders	✓	✓														✓
Ability to get rent vehicles accommodations																✓
Ability to search location	✓	✓		✓		✓	✓	✓		✓	✓	✓				✓

Table 1-Summary of Feature Comparison

III. Methodology

With a mixed-methodology approach, this study combined interviews, surveys, and reviews and presents them as an analysis. As methodology researchers used a survey to collect data. The data has been gathered from a sample of 95 foreigners and the survey contains questions that asked about whether tourists are satisfied or not with current travel planning systems in Sri Lanka. And suggested a suitable platform for that using a research paper review. Researchers asked questions to take information about current systems problems in Sri Lanka. Researchers also gathered data by observing how current systems work with Sri Lankan tourists and problems have existing systems by doing interviews with current application builders. The interviews were guided by a set of pre-determined questions about the tourist and travel software applications, both negative and positive on software applications in SriLanka. The purpose of the interviews was to identify the benefits and problems of software applications and to identify the stakeholder attitudes on the impacts.

The researchers used several kinds of research strategies such as conducting surveys on the identified audience, understanding the grounded theories and algorithms which were used, clearly understanding the current scenario, and focusing on the best solution for recovering the problems in the current situation. This study considers prime information collected from common people from tourist countries which comprises both males and females, with a survey comprising both closed-ended and open-ended questions. At the same time information was collected from Sri Lankan, popular sites moreover utilized in this investigation. Further, the researcher suggests a useful platform for implementation using reviewing research papers.

The system is developed using android studio. The server side language is Java, and the database is based on firebase. The Google play store sells android apps and researchers use the google play API to integrate them.

The developer event set it up to customize travel plan suggestions using filters. Further, use Google Maps APIs to develop map features. Iterative waterfall methodology is used during the development of the system as it reduces the developers' effort and time required to detect and correct the errors.

A. Data Gathering

The survey data for this study was gathered through a questionnaire, and literature reviews. The survey was conducted by delivering a questionnaire. This was done to collect 95 tourists and a literature review and review paper findings were completed by consulting 33 research data extremely precisely to improve the effectiveness of the research outcomes.

B. Data Analysis

In this study, many forms of analysis were carried out. Mainly analysis of data under the questionnaire. And secondly using conference papers. To pinpoint the chosen papers' research focuses, qualitative analysis was used. Frequency analysis was

used to examine the social media applications in tourism, social media and tourism's relationship, and the impact of social media on tourism. Finally, the researcher chooses a suitable application or platform in that industry in Sri Lanka.

C. Proposed System Background

Here the researcher specifies the software requirements which were needed to build the project, the concepts which could be applied, and a brief explanation of the overall outcome of the procedure of the project.

i. Android SDK

Important implications for developing applications for the Android Platform are provided by the Android SDK (Software Development Kit). The following are some of the Android SDK's key elements:

a) SDK Build Tools: This is a combination of all the tools needed to build every individual application component.

b) Android Emulator: This is a virtual device used to test theandroid application in the development environment itself.

c) Platform Tools: These are the tools that offer assistance for using the current Android API with an application.

d) SDK Platform: The application's intended API level (Android level)

e) Google APIs - By offering APIs which were supporting the building interfaces which is important in simplifying the app implementation.

ii. Firestore

Cloud Firestore is the name of the most recent database for Firebase's mobile app development. It builds on the benefits of the Real-time Database with a new, easier to understand data schema. In comparison to Real-time Database, Cloud, Firestore scales are larger and enable deeper faster searches. Each document has an assortment of key-value pairs. Large numbers of small documents should ideally be stored in the Cloud Firestore. All papers must be stored in collections. Documents can contain sub collections and nested objects, both of which may contain straightforward objects like lists or complex ones like lists. Collections and documents are generated automatically in Cloud Firestore, by simply applying data to a collection of papers. If one or both are absent, Cloud Firestore creates the collection or document.

iii. FCM

Using Cloud Messaging (FCM) users can transmit messages consistently and cost-free using a service for cross-platform messaging called Firebase Cloud Messaging (FCM). Using FCM, you may notify a client app when a new email or other data is available for syncing. Notification messages can be sent to encourage user re-engagement and retention. Mainly this provides a wide range of communication possibilities and skills. Push notifications are distributed using the Firebase Cloud Messaging service to android, iOS, and the web.

iv. Maps SDK for Android

Use the Maps SDK for Android to integrate google maps data, map displays, and gesture responses into your Android app, including Wear OS apps. Users may enhance the places on your map and encourage user involvement by addingmarkers, polygons, and overlays. The Kotlin and Java programming languages are also supported by the SDK, which also offers extra libraries and extensions for cutting- edge features and programming methods.

IV. Analysis

Data analysis, according to Yin (1994), includes evaluating, classifying, tabulating, or else recombining the data. Every study should have a broad analytical technique that treatsdata objectively, generates persuasive analytic findings, and eliminates alternative interpretations. This analytical approach should assist the researcher in selecting a technique that completes the study analysis. This analyses all of the main data acquired from the questionnaire distributed to tourists' visitors, conversations with app developers, and survey outcomes.

A. Age

The survey was conducted among foreign tourists which travel to Sri Lanka. That included 95 respondents. They are divided into groups with respect to their age limits. Among the sample users, 21.1% of them belong to the 10-25 age limits. When compared with the 26- 35 age limit that age limit percentage is low because 26-35 age limit tourists have some better experience in this topic area. 41.1% of users under the age 26-35 age limit as this survey is mainly targeted through Sri Lanka tourists' board registered people. 25.3% of users under 36-49 and 12.6% of respondents belong to the age above 50. Because of a lack of awareness about technology and the lack of usage of social media marketing the responses that came from the survey are very low from the above 50 age limit students. The following pie chart describes the sample sizes of respondents in each age limit category. Figure 1 shows the overall distribution selected respondents in terms of belonging to each category.
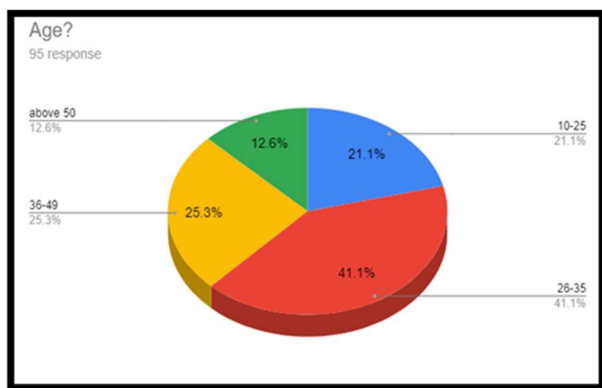
Figure 1: Age

B. Country

The survey received responses from 22 countries and 95 people. Accordingly, 7.4% from France, India, Russia, 6.3% from Thailand, and Switzerland tourist added their responses. Also, 5.3% from America, Canada, England, and Poland, and 4.2% from Australia, Denmark, Germany, Italy, and Japan tourists mark their responses. 3.2% from Belgium, Malaysia, Mali, and Nepal, and 2.1% from Bangladesh, China, Pakistan, Philippines, and Pakistan tourist people added their responses. This survey was shared through the people on the tourism board, and this was shared in almost every country people, but the number of responses decreased due to their inadequate knowledge of English.
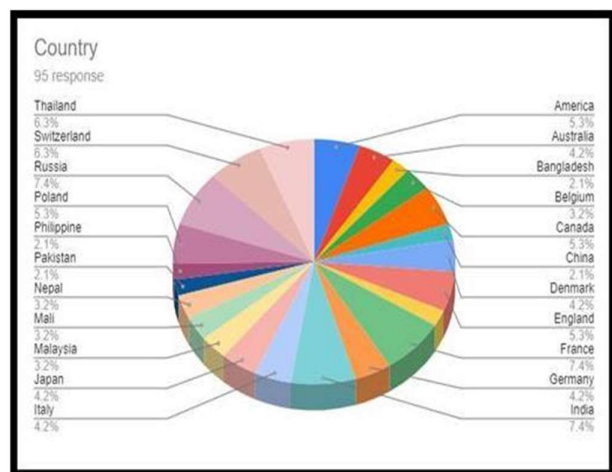
Figure 2-Country

C. Do you think you had a better travel experience in Sri Lanka?

According to the survey done by the researcher this question was also asked to know about their satisfaction in travelling experiences. Sri Lanka has thus achieved an important stage in comparison to the others of the world. 53.7% of tourists say they had a better travel experience in Sri Lanka. That is the most important point, because if someone gets a better experience at one time, they will be willing to travel to Sri Lanka again. But there were some unfortunate incidents that tourists could not enjoy or get a good experience during their travel. 6.3% of guests think they were not able to get a better travel experience as they were not having a good travel plan, had time limitations, or faced some bitter experiences. 40.0% gave the maybe answer because the overall experience they had was a mixed satisfaction with good and bad experiences in and out. Tourist satisfaction is a sensation produced by both cognitive and emotional components of tourist activities, as well as a cumulative perceptual appraisal of the many items and services consumed throughout the stay at the location. Tourist happiness is determined by a variety of elements, including travel motivations, tourist expectations, perceived quality, and ease of use, perceived value, and destination image. Tourist pleasure is highly tied to their post-purchase behavior. If the tourists are happy, they will return and suggest the place to others. Similarly, unsatisfied visitors act in a negative manner.

Figure 3-Experience rate

D. Were you able to see all the beautiful places in Sri Lanka as you thought?

Sri Lanka have multiple beautiful places to visit, but some tourists were not have been able to see those beautiful places. 24.2% marked answer as "No" because they were not able to visit many good places. Most of the guests gave their result as "maybe". That is 52.6% in figures and it was because the people guessed could have seen some more places. 23.2% give a "yes" answer. Those guests were fully satisfied during the Sri Lanka's travel.
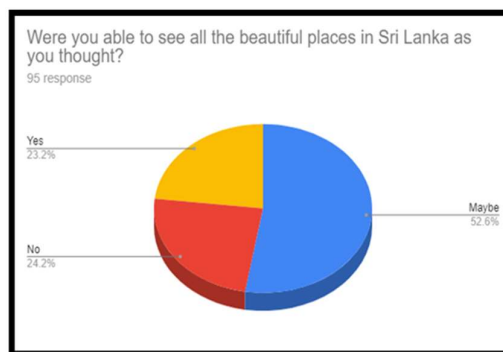

Figure 4-Satisfaction I

E. *What were the platforms you used to find instructions while traveling inside Sri Lanka?*

Tourism is a very dynamic and competitive sector that demands the capacity to constantly adapt to travelers' quickly changing requirements and wishes, since the pleasure, safety, and happiness of tourists are the primary emphasis of the travel and tourism industry. To make Sri Lanka competitive in the global travel and tourism sector and to fully use the industry's economic potential, appropriate regulations and investment decisions are required. 27.7% of guests get others' help to travel inside Sri Lanka. Anyone willingly offering help such as vehicle drivers, agency workers, shop owners, and other people give instructions to foreigners to enjoy their Sri Lanka travel correctly and better. That is the manual system. The modern-day world is going with the technology side. At that time, decrease in the use of books. 12.9% of guests use books. Mobile apps and websites both get equal responses. That is 24.6% out of the full response. Technology is the modern trend in the world. Sri Lanka also must be important to follow this technology. 9.8% Use some other platforms to get some instruction for travel inside Sri Lanka.
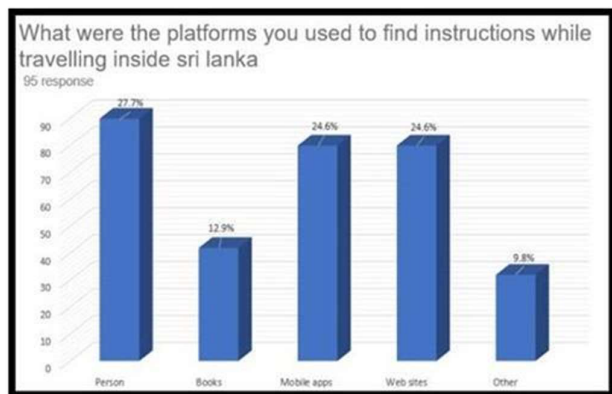

Figure 5-Platforms

F. *If other, please specify a used platform.*

In the above 9.8%, people say some used other platforms. Accordingly, out of 32 responses 4 people used Facebook, 2 guests used videos, and 6 responses used YouTube to get some instruction while traveling in Sri Lanka. Facebook and YouTube both platforms used 10 guests and social media platforms also used 10 people. Every time social media platforms are helping to get more instruction in any area. That is the importance of this but sometimes that has worn information. That is the dangerous thing.
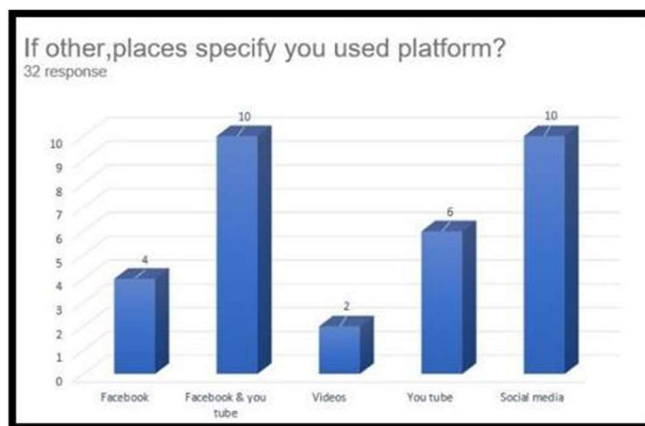

Figure 6-Other platforms

G. *What are the names of apps and websites you used?*

Sri Lanka has risen to prominence in contrast to the rest of the globe. From this perspective, the current state of the tourist business in Sri Lanka provides optimum comfort to the passenger. They are, respectively, fraud information, and inaccurate information added to the travel book. As a result of all of this, the country's attitude toward the tourist business has deteriorated. Similarly, there is no up-to-date information system elsewhere in the globe for a visitor intending to visit Sri Lanka and a local tourist before making their journey. There is no assistance in picking new software to enter Sri Lanka, other than current travel support software such as Google Maps, TripAdvisor, and Booking.com. It is critical that a traveler with a mobile phone has access to essential mobile phone software. Sri Lanka's tourist infrastructures, as well as the utilization of technology and new information, all need to be improved as a result of the above. Using more mobile applications or E-tourism is one of the world's most popular and investigated industries. 10 tourists said they use Google Maps for success in their travel. Google Maps is a worldwide app, hence it will be highly supportive. 12 of the guest mark they used trip advisor. That is both mobile and web applications. Trip advisor is one of the useful and popular applications for all countries because that has some new and easy-to-handle features. Out of 70 responses 8 guests said they use the booking.com app. which is one side of the travel and tourism industry. The PickMe app and the Sri Lanka tourism web page were used equally by 7 guests each. PickMe also is one side basic application and the tourism Sri Lanka tourism page is the most suitable application to get important and reliable information. 5 people used YouTube for getting more travel information. Today's one of the most common platforms has become YouTube because it has video and audio multitask features. Moreover, the Google travel page was also used by 5 guests. 6 tourists were giving responses using the "Travel Sri Lanka" page and 4 people were using the "Sri Lanka travel guide" page. Google earth and stray boots were used by 3 guests each.
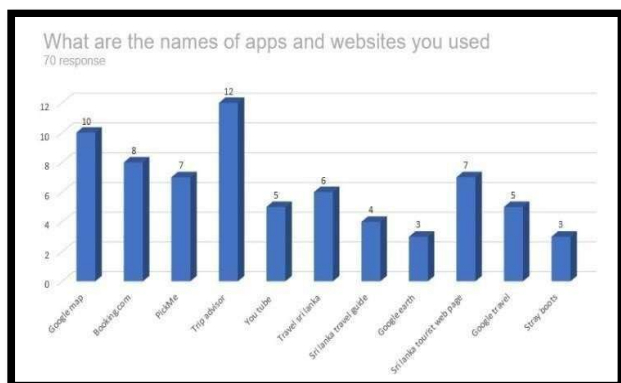
Figure 7- Names of software applications

H. Have you found one platform where you can make a good travel plan and know the guidelines exactly after coming to SriLanka?

In today's information-technology environment, computers, IT systems, and the Internet are becoming indispensable for many ofour daily jobs. As a result, having an online presence has become essential for remaining competitive in the tourism industry. The use of software applications has also become vital to ensure that you compete with the rest of the globe. 82.6% of respondents say current Sri Lanka does have not one platform for making a good travel plan, with better features including correct guidance and multitasking activities. Inside Sri Lanka has tourism and travel industry- related more software applications but no one platform all featured are included. 17.4% of guests say found one platform. When getting that one platform, have more advantages. Such as decreasing time and money waste, getting correct information and guides, enjoy travel.
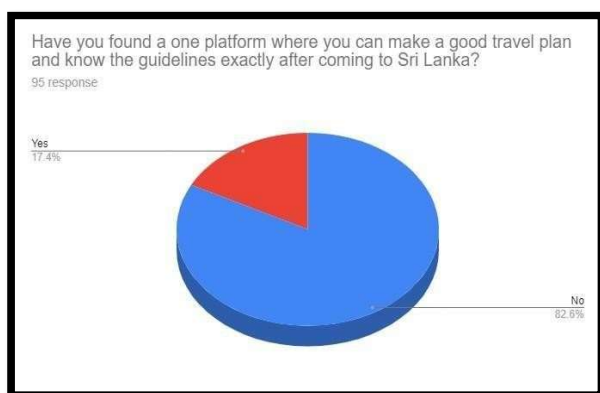

Figure 8-Satisfaction

I. How much support did you get from the existing app and website systems in Sri Lanka?

This survey can identify the success of software applications in the tourism and travel industry in Sri Lanka. In this chart

number1 is the lowest support get software applications and number 5 is the highest mark that gets software applications.11% responses from number 1(lowest mark), 21% responses of number 2 (mid- lower mark), 32% response from number 3(middle), 28% responses of number 4(mid-highest mark), and 8% responses ofnumber 5(highest mark). Number 5 has fewer responses, which mainly affects the user satisfaction rate. Number 3 and 4 have more responses which mean tourists get software application support moderately. When adding other features users or guests can get the highest support from that software application.
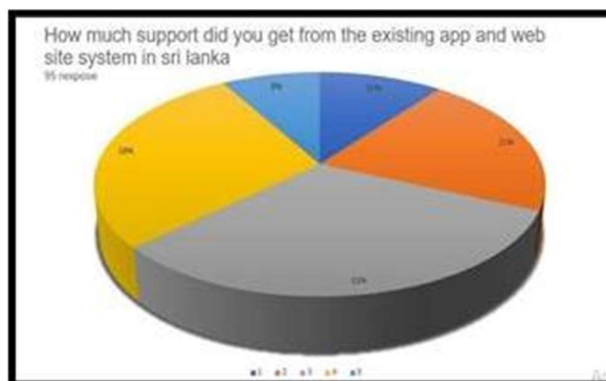

Figure 10-Support rate

J. Are you satisfied with the software application features available in Sri Lanka to make a travel plan and get things done properly?

Local government institutions and communities should concentrate on tourist satisfaction to ensure better travel services regarding the tourism industry. It is essential to take steps to make sure the quality of tourist services in both national and international markets. The categorization requirements for tourists' likeness were found in a survey of consumer satisfaction. It is obvious that quality is the most important necessity of tourism including the travel industry. To provide better travel services in the tourism industry, local government institutions and communities should focus on visitor satisfaction. It is critical to take measures to ensure the quality of tourism services in both domestic and international markets. A survey of customer satisfaction revealed the classification needs for tourists' similarity. Quality isthe most crucial need of the tourist industry, including the travel industry. When serving a good service, guests are satisfied more but Sri Lanka does not have better software applications. Therefore, difficult to travel inside Sri Lanka. when introducing better mobile or web applications, the satisfaction rate also increases.4.3% of respondents say satisfied with existing software applications in the travel and tourism industry because sometimes some people do not need more features to use applications. Most people's response is not satisfied with Sri Lanka's existing software applications in the travel industry. 45.7% of guests gave "maybe" as the answer.
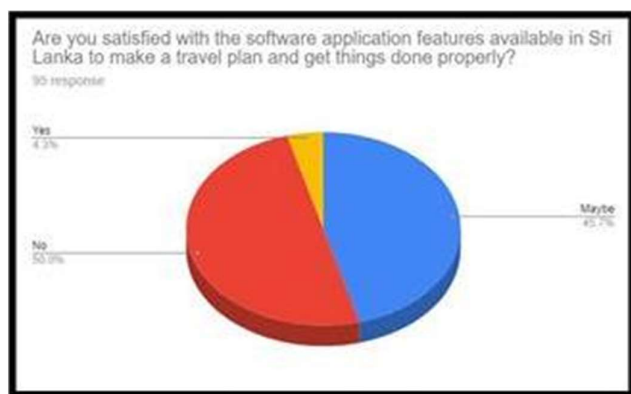
Figure 9-satisfaction III

K. Do you think those systems need to be further developed?

From this survey, it was found that the most needed features are required to be added for existing software applications. Such as 22.6% like to add interactive interface features to existing applications. That is the most important point to get the attraction. 18.9% say need tourist guidelines and 9.9% like to add a geo-tracking service. That represents the security area of the travel and tourism industry.8.7% of respondents need a world clock because they need to know other countries' family members' time for contact with them. 20.1% like to add location-based shops, restaurants, and hospitals. Sometimes it is difficult to search for good places not using software applications to help. Every people cannot verbalize in English.14.1% highlighted the need a language translation option and 5.3% of respondents mention having more features to develop in the Sri Lanka tourism and travel industry technology field.
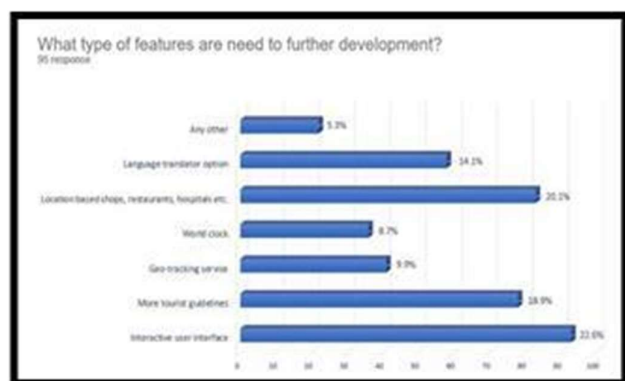

Figure 11-Features

L. What type of features are needed for further development?

The mobile application concept is a key influence in the tourist business in Sri Lanka, providing travelers with informationsuch as travel, transit data, lodging, bungalows, and food. Forpeople who want to read and listen to audio and videoinformation, video and radio reports about each tourist location are now accessible. The objective is to develop such a user-friendly application to cater to the world's preferred languages. Throughout this process, Sri Lanka's tourist sector is developing a strong multi-media travel communications mobile application. It allows a traveler to participate in a multi-purpose multimedia application that offers essential conveniences aswell as entertainment and data. Here are considered the tourists'ideas about some of the new features need to add currentapplications fields specifically explored in this research. Suchas, Easy to handle interface, Easy payment options, and apackage system, Sri Lanka places description video blogs, booking services, need correct country rule updates, indicatesEmergency phone numbers, change our reservation on the go,makes an application that can give the guidelines with voice recognition, quick response, Correct descriptions about hotels,restaurant, newly updated news, Vehicle rent locations, and prices and instructions of theirs. When these requested featuresare added can get superb software applications because thatresponse people have experience using other countries' software applications.

M. Ideas of app developers

Despite several challenges and small size, the software and telecom sectors of Sri Lanka's ICT economy are flourishing. Nonetheless, the business is confronted with a number of important issues. They include a lack of openness in government acquisitions, a lack of reasonably priced international bandwidth, a dearth of qualified modern technology experts and a management- classknowledgeable about modern technology, and a tax framework that does not promote local sales. In general, the usage of modern technology in the tourist sector is sporadic. Some financial institutions have made significant investments in modern technology, and as a result, they are technological leaders in their respective countries. Other industries lag far behind, and their usage of modern technology is patchy at best. Even organizations that have invested in modern technology frequently do so in limited ways that are inadequately integrated into their operations. The same may be said about Internet use. Part of this is due to the tiny fraction of Sri Lankans who have access to the Internet, but the primary cause is, without a doubt, a lack of managerial understanding about the modern technology capabilities in their company sector.

In addition to this, Sri Lanka lags behind the rest of the world due to the fact that there are still those who do not have much experience in the tourism industry. It can be seen that the features of the existing apps in Sri Lanka need to be further improved by comparing them with the apps in other countries. Add new features, make them easy to use and bring booking, planning, and paying all sides on one platform. For that, you can use modern technology.

V. Requirement analysis

There are two main user types in this system. This proposed system may be accessed by mainly theadministrator and user. Secondary users divide into two subcategories such as client and service provider. Furthermore, each user has a unique username and password provided by the system when they register. There are major functional requirements listed below. Admin should be able to,

- Perform CRUD operations in the system.
- Manage accounts

- View the number of accounts and related details.

The user should be able to,
- Upload posts, pictures, and videos.
- Like and comment on a post.
- Share servicers.
- Watch videos related to travel places.
- Chat with others.
- Read guidelines and contact the travel guide.
- Services booking.
- Select tour plans.
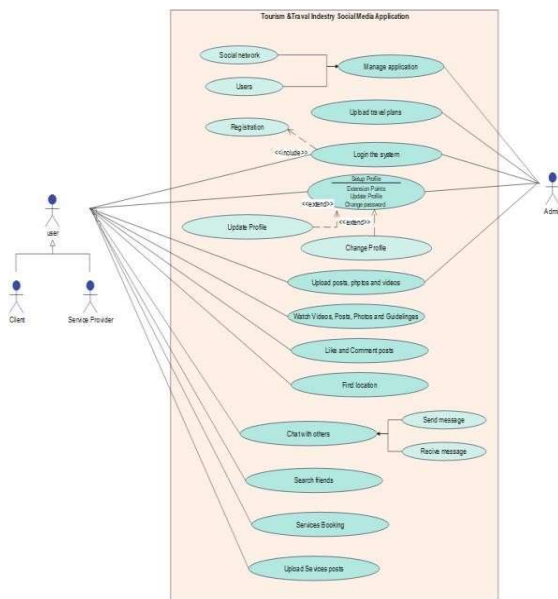- Account management.
- Search for places using the map.

VI. Design approach

The modern social media platform in the travel and tourism industry in Sri Lanka mainly consists of eight main modules. Interactive mobile prototypes were created for each module for efficient tasks of implementation.

A. Registration and login module

Users should register for this system by themselves by entering their username and password as preferred. Those usernames andpasswords are used to log into the system. If required users can change their passwords after login into their account. The login function should be used to access the system used to log into thesystem. Users should already be with their usernames and passwords.
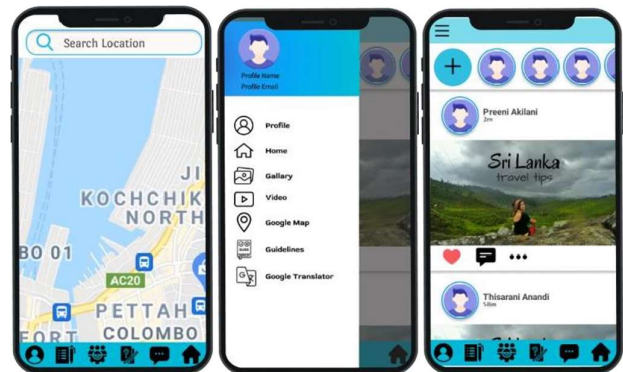

Figure12-Mobile Prototype for Login and Registration Module

B. Administrator module

The administrator also has to log in and register and the further administrator has the authority to access all the account details, upload image details, and travel plan details. Admin can access the system by adding, editing, and deleting some uploads.

C. Post-uploading module

Post-uploading is one of the main functions of a social media platform. Clients can upload their feedback, experience or recommended posts, adventure videos, and posts. Post ID is auto generated when uploading a post. Clients also can write small descriptions of posts. Mainly users can capture images of trips using a camera during the travel and others can like and comment on these posts. Those pictures and posts can be uploaded with descriptions to share a live experience of the trip. When reading descriptions and comments the implementercan understand what type of travel plans need to be further.

Figure12-Mobile Prototype for Post uploading and Map Module

D. Services uploading module

Service uploading is one of the main functions of a social media platform. Service providers can upload an advertisement to display their services. The service providers can upload their service detail advertisement posts. Post ID is auto-generated when uploading a post. Mainly service providers can upload details including created posts and others can like and comment on these posts. A small description also can write above posts. Those pictures and posts can be uploaded with descriptions to

share a live experience of the service providers.

E. Guideline module

The administrator should upload guideline details PDFs to the system related Sri Lanka travel and tourism industry. Clients and service providers both of users can go through the relevant guideline category, and they can find guides who can advise more details about Sri Lankan guidelines.

F. Travel plan module

The main function given by the application is the client can add their tour details to the system on their own and after submitting system expresses some travel plans related to the client's details. After the client can choose a travel plan and the like. The travel plans are uploaded by the administrator. Administrators have created a set of imaging travel plans. The administrator that plans build by their search details google websites review and based on administrator experiences. The client who selects a travel plan will be can search places using the google map feature.

G. Image and Videos gallery module

The administrator should upload travel places-related images and videos to the system and users can watch that and can get some idea of Sri Lankan travel places. Clients can get ideas about travel places before traveling.
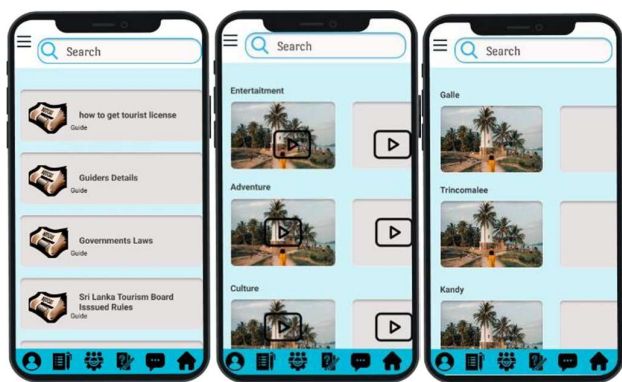

Figure12-Mobile Prototype for gallery and guideline Module

H. Chat module

Clients and service providers can chat and share details and get some knowledge about Sri Lanka travel places, and service providers' guideline details using one platform.

VII. Implementation

This furniture application is deployed in 3 states as explained below.

A. Travel Plan Collection

The developer should collect the most popular travel plans for

related travel and tourism industries in Sri Lanka. For the creation of the travel plans developer used the using websites.

B. User Interface Creation

The main pages of the traveling application are the Login page, registration page, home page, gallery page, services page, and payment details page. The main pages of the social media application are the post-reading and upload page and chat page. All the UI should be simply designed and developed according to the basic requirements of the clients. The process of this application is somewhat new for all Sri Lankans. Therefore, for easy acknowledgment of all the people, the developer used many techniques in developing UIs by showing the process of the application.

C. Insertion of products into the categories and backend

After an assortment of industry knowledge, an interfacewas created to change the process of uploading the info to the base database. Furthermore, the user can upload posts, view uploaded posts, and like and comment on posts. Administrator, whose credentials are often created on the server aspect of the base, the administrator is ready to log in through a separate login page and then the user login page. Upon thriving authentication and login, the administrator is ready to feature the merchandise information to the information through the add gallery and information document pages.

VIII. Results and evaluation

For the evaluation of the accuracy of the system, theresearcher has tested the posts, images, and videos in real-time preview by keeping the mobile phone in every environment. Users can upload posts using gallery imagesor using the camera in a mini-second.

The researcher has done the evaluation process indifferent ways. The researcher has compared the developed system with a set of related real-world scenarios' functional and non-functional requirements. The researcher has shared the above-implemented system with the foreign travelers which were used to gather the requirements in the requirement analysis process. The complete system evaluation results are mentioned below. Here the system has been given to a set of Sri Lankan service providers and foreign travelers who are engaging in travel using the applications. Here the sample population was eight travel agencies.

Note: the mean score is calculated from respondents' feedback on the Five-scale questionnaire: 1 (Strongly Disagree), 2, 3, 4, and 5 (Strongly Agree).

The functionality of the system	Mean Score
Customer account management	4.6
Admin account management	4.7
Service provider advertisement management	4.5
Post Upload management	4.8
Gallery and guideline category management	4.8
Chat management	4.6

Travel plan management	4.8
Analysis management	4.2
Service booking management	4.1

Table 2-System Evaluation Result

IX. Conclusion and further work

The study researched tourists' perceptions and satisfaction with Sri Lanka's tourism and travel sector software application. Age, country, support rate of software programs, features more likely to be needed in the future, tourist attractions, price levels, and used platforms for travel and experiences were all used to gauge how tourists felt about their trip. As tourists, they are very much fond of new technologies, therefore, interactive mobile technologies and the internet are carving new faces in customer services for the tourism and travel industry. Through a mobile, tourists can be guided through cultural heritage through multi-language voice, text, or images. Further, this research paper confirms all age ranges of tourists are interested in travelling to Sri Lanka and most guests have better experiences in Sri Lanka travel. Have many platforms to get helped during the travel, and mostly used mobile and web applications names are discussed. Guests are not satisfied with current app features and additional features need to be added to existing systems. Those features that should be taken as improvements were also identified through a survey. Additionally, app developers also share their ideas that existing systems have problems and that may have to be further developed. Accordingly, the features and shortcomings in the software applications in the tourism and travel industry have contributed to a decrease in satisfaction. Then researcher implements the modern social media platform for the tourism and travel industry in Sri Lanka. As the mobile phone is an essential device for people these days, social media platforms are the most popular application these days. For further work, researchers would recommend improving this social media application with many more options. Further, this system can be improved by using this application in many languages.

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