
SURVEY ON A ONLINE BUS RESERVATION SYSTEM

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ABSTRACT

A bus reservation system is a modern and efficient way to streamline the process of booking and managing bus passes. This system leverages technology to allow passengers to reserve and purchase bus passes online or through dedicated mobile apps, reducing the need for physical ticket counters and paper tickets. It offers numerous advantages, such as convenience, flexibility, and improved passenger experience. Additionally, bus companies benefit from better resource allocation and data analytics to optimize routes and schedules. In this era of digital transformation, a bus pass reservation system is a valuable tool for both passengers and transportation providers.

Keywords: Online Tourism Industry, Privacy, Attractiveness, Receptiveness, E-Services.

I. INTRODUCTION

The Online Bus Ticket Reservation System is a web-based application that allows visitors check bus ticket availability, buy bus ticket and pay the bus ticket online. This system is established for all the home/office users after gaining access from the administrator. According to Invaderzim (2011), Online Bus Reservation System provides bus transportation system, a facility to reserved seats, cancellation of seats and different types of enquiry which need an instant and quick reservation. This system can be used by the users in performing online reservation via internet for their all business purposes. Users can use this program directly on their websites and in the phones also. The use of bus traveling is a large growing business in Nigeria and other countries; hence bus reservation system deals with maintenance of records of each passenger who had reserved a seat for a journey. It also includes maintenance of information like schedule and details of each bus (Shivaji, 2010). Also, we get to know that there are many operations, which they have to do manually. It takes a lot of time and causes many errors. Due to this, sometimes a lot of problems occur and they were facing many disputes with customers. To solve the above problem, and further maintaining records of items, seat availability for customers, price of per seat, bill generation and other things, we are offering this proposal of reservation system. The reservation system has three modules. First module helps the customer to enquire the availability of seats in a particular bus at particular date, the second module helps him to reserve a ticket and with the third module he can cancel a reserved ticket. However, since the current reservation system is still conducted manually and separately at each branch, contact must be made by each branch's front-officer to the head office for each customer's enquiry in order to get the latest update on schedule, seat availability and other reservation-related information; as well as to avoid duplicate bookings or over-capacity. There is also a physical limit to the reservation availability as each branch only operates during certain hours and reservations can only be made on-the-spot. These limitations are not the only issues the company is currently facing. Other factors that create problems include human errors (e.g. miscalculations in ticket price, mistakes in noting passenger data, etc.), the fluctuation of passengers during certain periods of time that causes a bottleneck in the check-in process because of the inability of the front officer to multitask and the lack of overview or report of the on-going business; making it difficult for the company to judge past/current performance or plan future improvements. Looking at these problems and limitations, it is clear that both the company and the customers require an integrated reservation system that is more efficient in information update and reservation handling and also easy to use. Electronic tickets, or e-tickets, give evidence that their holders have permission to enter a place of entertainment, use a means of transportation, or have access to some internet services. Bus Ticket Reservation System enables the customer to buy bus ticket, make payment, and ask for information online easily. Furthermore, staff can sell bus ticket using Bus Ticket Reservation System after check bus ticket availability for the customer and print the bus ticket to the customer that queue up in the counter. The method to solve this problem is to create an online buying bus ticket system.

Customer can buy the bus ticket over the Internet, 24 hours a day, 7 days a week and the bus ticket can't be lost, stolen or left behind. In addition, the online system lets the customers check the availability of the bus ticket before they buy bus ticket (Wee, 2007). Furthermore, customers no need to pay cash to buy bus ticket because they can pay the bus ticket by using deposit slip number order by bank.

II. RELATED LITERATURE

"Factors Affecting Online Bus Ticket Reservation." As progress develops, PC-based service applications are promoted to intranet-based services, and the rapid adoption of web technology has changed everything into cyberbased applications accessible virtually, internationally, and on-demand over the internet. What is new is the capacity to scale services rapidly; this paradigm shift in service provisioning affects the deployment of real-time applications. According to this study on online ticketing, each component should be investigated for the lucrative prospects that cyber applications reveal. Results identified on-demand, cashless, and one-to-one privacy determinants as keenness variables, less costly, specific circumstances, and time-saving as acceptability factors. This study would help cyber-based service providers satisfy the requirements posed by the expanding scope of their services (Marfo & Quansah, 2020; Bagrecha & Alam, 2016).

"Online Bus Reservations and Electronic Commerce." The goal was to ensure that the consumer did not have to leave their comfort zone to book a ticket and to assist them in obtaining a ticket when they needed one. People voted for the internet as the medium they could not live without. PC and Internet penetration increased not just in urban but also in rural areas. Additionally, individuals were becoming accustomed to ordering trip tickets through 2GO and private airline websites. Why then not Buses? The online bus reservation system allows customers to make online bus ticket bookings, check bus availability, and amend their profiles while the administrator can update, delete, and examine information. After making a reservation, customers can purchase tickets and make payments online, eliminating the need to pay at the counter (Adducul, 2020). MBTS stands for.

"mobile-based application for bus ticketing services." Mobile technology is a feasible option for generating applications for our activities. This concept recommended utilizing such technology for MARA Liner ticket bookings to make this service accessible anytime and from any location. This study's primary purpose is to create and assess a mobile-based Bus Ticketing Services prototype (MBTS). This study intends to provide bus transportation firms with effective WAP technology utilization. The literature on mobile technology and its elements has been discussed to establish a foundation of knowledge for such mobile technology. This research will direct the prototype's development and evaluation. The adopted technique consists of four steps: Information Gathering, Prototype Design, Prototype Development, and Evaluation. The findings of user evaluations of the MBTS suggest its usefulness in terms of Usefulness, Ease of Use and Outcome, and Future Application. For Usefulness Outcome/Future Use, the results revealed a significant difference between the first group of users with a mobile phone and the second group without a mobile phone, but there was no significant difference in Usefulness and Ease of Use (Ali Akounni, 2009; Asaad et al., 2013).

"The RedBus Route to Success in the Indian Market: The Development of Online Bus Ticketing." Despite being utilized by millions of people, the bus travel sector in India is very fragmented and unorganized, and it took some time for innovations to emerge in the Indian bus ticketing industry. This research seeks to investigate and assess the scope and impact of the transition by focusing on redbus, the largest bus ticketing company in India. The first half of this paper analyzes the characteristics of the Indian bus transport sector and its issues. The second component of this report lists the obstacles faced by 'redBus,' which currently covers 80 percent of the market geographically. This research then investigates an existing growth model for 'redbus' that would give long-term growth sustainability (Thomas et al., 2014; Srivastava, 2020). STATEMENT OF OBJECTIVES 1. Measure application's overall convenience, effectiveness, and user-friendliness. 2. Determined the quality of fetched information and management of data fetch in the system application. 3. Determined the interface quality (the application contains all the functions and capabilities of the interface.) 4. Measured the acceptability of the application.

III. OBJECTIVES OF THE STUDY

To study the Change in Customer Perception towards Online Portals and Travel Agencies. To study the mode of booking preferred by most of the customers.

IV. METHODOLOGY

The study which enables customers to book tickets by visiting booking counters in their vicinity (near the respective location) as needed. As it is an online application, the client desires that the application be linked to the database so that any information provided, including information about customers, buses, and bookings, may be viewed by other centers. They would also like to include a feature that accomplishes their responsibilities and an application that allows customers to access the website and order tickets online rather than at the counter. It is necessary to keep a database including the bus specifics, bus number, and route, stops it makes along the distance, and departure and arrival times. In addition, the client information entered at the time of ticket purchase must be added to the database so that they can track the customer's details at any moment utilizing the transaction code-based search option. Employers are the only ones who may book tickets using a username and password. Hence, the database should also have a list of companies. The list to be maintained consists of personal information, contact information, name, and location/address. There must be buttons such as delete, edit, and straightforward. Depending on the selected button, the appropriate action must be taken. Also, if the Employee record is submitted (The Employee data will be kept only by the Admin), the system will request the Employee's login and password (the Employee can change the password) so that he can log in to the account and complete the booking chores. In addition, there is a time limit for ticket cancellation. If canceled before 3 pm, the reservation is null and invalid

V. ADVANTAGES AND DISADVANTAGES

Advantages:

- The system having online payment functions. So that it will be easier for customers to pay online rather than going to the counter and pay by cash.
- The system will generate a voucher code for registered costumers every 15 days. So, using this voucher costumers will have some discount while purchasing ticket online.
- Costumers will be able to see the available bus depending on the schedule they select along with the price.
- To make the seat reservation clearer the system having the picture of available and reserved bus seats so that so that costumers will know which seats they can reserve before they go for purchasing tickets.
- If there is any upcoming or ongoing promotions then the system will show it for customers whoever accessing.
- As the system having online transaction it will not save the coustmers credit or debit card details like card number expiry date, CVV code for security issues while purchasing or reserving seats.
- If the registered customers want to add their credit or debit card as a default payment methods then the system have the sanction where it will encrypt the card details .
- If the users forget their password the system will have the panel where they can apply for the new password for logging to the system thus the new password will be sent to their email address properly.
- Users data is fully protected.

Disadvantages

- The system will not allow customers to refund.
- The system is accessible only for limited hours.
- System will not support any offline data accessibility
- System will not allow(or) support paypal transfer.
- All the data need to backup manually at the end of the day.

VI. REQUIREMENT ANALYSIS

Functional Requirements

The system supports customers booking and able to modify them

- Customers can search based on hotel, apartment, inns (ex. Radisson, Singapore)
- When a customer search for hotels, apartment, and the search result must contain hotel or apartment information (Address, Ratings, and Price) and also its availability within choosing check in and check out date. Customers able to cancel their booking from their account
- Staffs able to edit customers booking information (updating check in, check out, room preferences, bed preferences and also cancelling booking). Customers can book online and pay with credit or debit card
- The system must send booking confirmation email after successful payment.
- Customers can write reviews about hotels and apartment and also rate them.
- Customers able to check their booking status from their individual account.
- Customers can send feedback or call the company for booking purposes.
- Customers can check for latest promotion or deal.

Non-Functional Requirements

The system must ensure that all the transferable data as for examples customers credit or

- debit card number, CVV Code, e-payment should be done in secured connection. The system must be able to handle multiple transactions a time.
- The system must provide customers 24*7 hours online booking service.
- The system should support almost all the browsers (Internet Explorer, Safari, Chrome, and Firefox). The system should be able to convert the price from Malaysian to USD and SGD.
- System should send the newsletter about ongoing promotions or deal to registered customers. Customers need to cancel the booking before 24 hrs. otherwise their credit card will be charged for one day.

In promotion time the system will charge credit card promptly.

Software Requirement: Operating System: Windows (XP, 7, 8, 8.1) or Mac OSX (Tiger, Leopard, Snow Leopard, Lion, Yosemite).

Web Browser: Google Chrome, Internet Explorer (ver. 8 or later), Mozilla Firefox, Safari (Mac). Database Management System: MySQL, SQL Server, Microsoft Access, Oracle.

Web Development System: Visual Studio 2010 or later, Adobe Dreamweaver, Notepad, and Notepad++.

Others: .NET FRAMEWORK.

Hardware Requirement

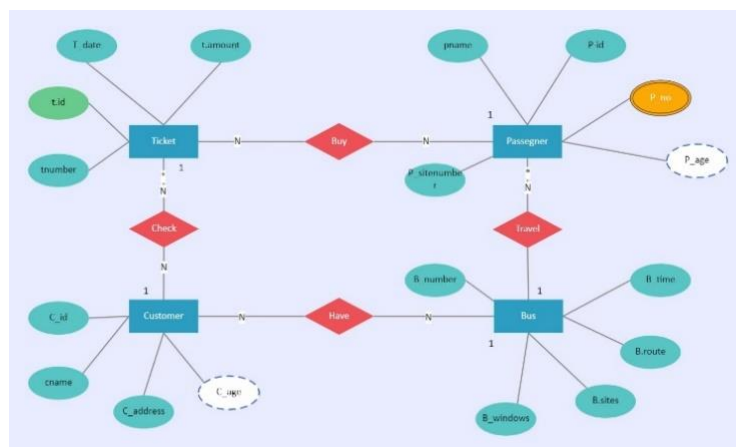
RAM: Minimum 1GB or higher.

HDD: Minimum 50 GB.

Processor: Intel Pentium 4 or AMD.

LAN: Version 1.6.6.406(For fixing up client disconnection)

VII. ER DIAGRAM



VIII. CONCLUSION

Tourism assiduity in India is growing and it has vast latent for generating employment and earning large quantum of foreign exchange besides giving a fillip to the country's overall modernization and social advancement. The offline services are used by clients, who aren't familiar with online portals, and are therefore tentative on travel agents for their travel booking. In this case, the travel agent plays a vital role to the customer as he/she has been paid for the customers booking, and the customers are fully dependent on the travel agent. Offline services are generally used by the people who are travelling with groups, mentioned as called Group Tenures. The client thinks that the travel agent's booking makes their stint comfortable, but at the end the guests do not realize that the travel agents also use the online portals for the reservation. Technology allows quick, effective communication between tourism businesses and voyagers. Both customers and businesses can gain from advances in communication, reservations and guest services systems. Internet, Reservation and Computer Systems, Cellular Communication are sources for the changes in tourism and reserving trends. In the hospitality and tourism business, effective use of Internet can ameliorate the profits. Travel and tourism assiduity has been greatly impacted by the improved use of e-commerce in business, especially the way trip associates deliver their travel products to the market and the clients. There is major shift from the use of traditional offline channels i.e., travel agencies to online portals i.e., online tour portals and reservation systems. The analyst also figured out that the online portals are easy for reservations and making payments for booking. Auto rentals like Uber and Ola are also making inroads which clients use with just an application on their mobile phones. Overall, it was seen that online portals are run down by majority of the consumers, as they have vast information to give to consumers and are also connected all over the world.

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