Exploring the Impact of Demographics on Customer Satisfaction with redBus Services in Chennai, India

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Abstract - This study explores customer satisfaction with redBus, a leading online bus ticketing platform, focusing on users in Chennai. Since the rise of Online Travel Agencies (OTAs) in the mid-1990s, travelers have increasingly favored these platforms for their convenience, security, and rewarding features. The study aims to analyze the most frequently used services on redBus, evaluate customer satisfaction, and investigate the relationship between customer demographics and service usage. Data were collected from 53 respondents via a structured questionnaire and analyzed using SPSS with one-way ANOVA and chi-square tests. The results showed significant associations between monthly family income, occupation, and the services utilized on redBus. Key areas of customer satisfaction included time-saving features, privacy, security, and cost savings, although 'ease of booking' showed no significant difference. Overall, the findings indicate high customer satisfaction with redBus services, suggesting that continuous improvements in user experience could further enhance customer loyalty and support future growth.
Keywords: Customer Satisfaction, redBus, Online Travel Agencies (OTAs), Service Usage, Demographics

I. INTRODUCTION

Online travel portals (OTPs), which were initially created to sell unsold airline inventory, are now able to secure international reservations at competitive prices due to efficient computerized reservation systems (CRS). These online travel agents allow customers to compare and choose from various vacation options. They also offer a broad range of services, making it easier for customers to complete their travel plans. These services include reliable reviews and accurate local information.

RedBus is an Indian mobile app and website that offers bus tickets for iOS and Android smartphones. It serves as the hub for a network of over 3,500 bus companies across India, Singapore, Malaysia, Indonesia, Colombia, and Peru. Its headquarters are located in Bangalore. The company claims to have served over 20 million customers and completed more than 180 million journeys. In 2018, the firm held 70% of the Indian online bus ticketing market, with a gross merchandise value (GMV) of ₹150 billion (equivalent to US$840 million in 2023). The platform is frequently updated, allowing passengers to easily search for buses on their preferred routes, compare ticket prices, and purchase bus tickets online at their convenience. Customers from anywhere in the world can purchase bus tickets by visiting the official redBus website, making bus travel convenient from the comfort of one's home, office, or vehicle.

II. LITERATURE REVIEW

Singh, S., & Bashar, A. (2023). With the global progress of technical infrastructure, e-tourism is gaining significant traction among travelers and transforming the tourism industry. Numerous advancements in the tourism sector are evident in the dynamic shifts in technological features. This study uses bibliometric analysis to conduct a systematic evaluation of the literature, aiming to shed light on advancements in the area of e-tourism. The most cited publications, contributions to e-tourism research from various authors, countries, institutions, and journals, as well as co-occurrence and cluster analysis for significant e-tourism patterns or themes, were among the insightful findings. This study reveals the researchers' future plans and calls for a comprehensive evaluation of the literature on e-tourism.

Verma, S., Warrier, L., Bolia, B., & Mehta, S. (2022) state that while virtual and augmented reality have become popular tools for enhancing the travel experience, scattered research limits a broader understanding of their impact. This work provides an integrated review using both qualitative (intellectual structure mapping) and quantitative (science mapping) approaches. Results suggest that interactions among elements of virtual tourism-including smartphones, augmented reality, virtual reality, big data, and artificial intelligence/machine learning-are redefining the virtual tourist experience. Additionally, the report presents a conceptual framework to guide future research directions.

Le *et al.,* (2021) note that the way people travel and manage their daily activities has changed significantly in recent years, largely due to the growth of e-commerce. Researchers have thoroughly reviewed how online shopping influences personal travel behavior, considering factors such as travel frequency, trip distances, trip chaining (combining multiple errands), transportation choices, and time use. While most studies have focused on travel frequency, other important aspects, such as changes in travel patterns, have received less attention. Few studies have explored how

online shopping alters travel behavior in ways that could affect transportation planning and demand management. One challenge in drawing conclusions from existing research is the inconsistency in how studies measure variables, categorize products, and define study areas.

Furthermore, the reliance on cross-sectional surveys (which capture behavior at one point in time) has made it difficult to distinguish between short- and long-term changes in travel behavior, as well as between complementary, substitutive, and modifying effects of online shopping. The authors suggest that future research should address these gaps, particularly by considering long-term impacts and employing more comprehensive data collection methods. This research is essential for policymakers aiming to create urban systems that integrate e-commerce trends with sustainable transportation and land use planning.

Parameswari (2019) states that the convergence of media technologies has made young people the primary users engaging in online purchases, more so than any other age group. The advent of the information age has given rise to a new type of consumer-more demanding and knowledgeable, yet more influenced by their decisions.

The 21st-century discerning consumer is difficult to satisfy, and marketers must constantly find ways to meet their demands and preferences. This article investigates internet marketing and consumer behavior among college students. The research focuses on online purchases of technological devices and cosmetic items by college students.

A quantitative approach was used to collect data from respondents, employing a non-probability convenience sampling method to gather data from students (N=100). The data were analyzed using statistical tools such as percentages, t-tests, and correlation. The study's findings show that most male respondents preferred to buy electronic gadgets, while females favored purchasing cosmetic items over electronic devices.

Pan *et al.,* (2018) present the results of an experiment conducted in the United States that evaluated response rates to an online travel survey request. The experiment's findings indicated that response rates to requests submitted by a researcher with an ethnically Chinese name were significantly lower than those for identical requests from a researcher with a Western name. Tourism practitioners and academic researchers, who frequently depend on survey-based research, can readily recognize the significance of this study. Strategies for mitigating ethnic bias are discussed.

Sparks *et al.,* (2015) examine how potential guests read and evaluate an online negative review along with the accompanying hotel response.

The research investigates two primary questions: what elements of responses influence customers' opinions, and whether the presence (vs. absence) of an organizational response to negative customer reviews influences consumers' assumptions about the target company. Four factors associated with responses-source of response, voice of responder, speed of response, and action frame-were tested on two outcome variables: customer concern and trust inferences.

The presence of an online response (vs. no response) improved potential customers' inferences about the company's trustworthiness and level of customer care. Timely responses and a human voice produced positive consumer conclusions, while response source or action frame made no difference in the inferences. Implications are provided for managing negative online reviews effectively.

Neuhofer *et al.,* (2012) emphasize the need to merge two paradigm shifts and call for fresh considerations in the creation of experiences. The aim is to explore technology as a creative force in co-creating enhanced destination experiences. The paper addresses three levels: by introducing and conceptualizing a new experience creation paradigm called Technology Enhanced Destination Experiences, by proposing an extended destination experience co-creation space across the pre-, during-, and post-travel phases, and by discussing managerial implications for the future creation and management of experiences in a destination context.

III. SCOPE AND NEED FOR STUDY

random sampling limits the scope of the research to the metropolitan area of Chennai and generates a sample size of 53. Online travel sites are a key source of income for the companies they belong to. Tracking customer satisfaction levels and ensuring that these portals provide the best customer service possible is crucial. This study focuses on the salient features of redBus and provides a comprehensive examination of the user-friendly aspects of the website.

IV. AIM OF THE STUDY

1. Analyze the services offered by redBus that are most frequently used by its customers.
2. Determine the level of customer satisfaction with the redBus online travel portal.

V. METHODOLOGY

This is a descriptive study. The study's population includes individuals in Chennai City who use the redBus online travel portal. A structured questionnaire using Google Forms was employed to gather primary data from 53 participants across Chennai City to assess consumer satisfaction with the redBus OTP. Secondary data were obtained from online publications, blogs, and journals. The association, preferences, and result interpretation were examined using SPSS (Statistical Package for the Social Sciences). Data were analyzed statistically using one-way ANOVA and chi-square tests.

VI. DATA ANALYSIS AND INTERPRETATION

Based on the questionnaire responses, data analysis and interpretation are presented in this section. The following analysis addresses the various objectives of the research.

A. Demographic Profile

Age, gender, marital status, occupation, and monthly family income were assessed based on the respondents' profiles.

TABLE I DEMOGRAPHIC FACTORS OF THE RESPONDENTS

Demographic Factors	Classification	No. of. Respondents (N=53)	Percentage
Age	18-30	28	52.8%
	31-40	12	22.6 %
	41-50	08	15.1%
	Above 50 years	05	9.4%
Gender	Male	28	52.8%
	Female	25	47.2%
	Others	0	0
Marital Status	Married	24	45.3%
	Un-married	28	52.8%
	Others	01	1.9%
Occupation	Student	18	34%
	Private Employee	13	24.5%
	Government Employee	06	11.3%
	Own Business	07	13.2%
	Others	09	17%
Monthly family income	Below 10,000	05	9.4%
	11,000-30,000	18	34%
	31,000-40,000	17	32.1%
	41,000 and above	13	24.5%

Source: Computed data

Interpretation: Respondents in this research were grouped based on demographic criteria. The majority of respondents (52.8%) were aged 18 to 30. Males outnumbered females, comprising 52.8% of the sample. Most respondents (52.8%) were unmarried. In terms of occupation, the largest group (24.5%) were private-sector employees. Regarding monthly family income, the majority (32.1%) reported earnings between Rs. 31,000 and Rs. 40,000.

The first objective of the research is to analyze the services that redBus offers to its customers that are most frequently used. The statistics based on this objective are shown in the table below.

H_{01}: There is no significant association between monthly family income and the services utilized by customers.

TABLE II (a) MONTHLY FAMILY INCOME * SERVICE UTILIZED CROSS TABULATION

Count		Service utilized				Total
		Train Ticket Booking	Bus Ticket Booking	Auto Ticket Booking	Metro Ticket Booking	
Monthly family income	below 10,000	1	2	0	2	5
	11,000-30,000	0	11	3	4	18
	31,000-40,000	3	9	2	3	17
	41,000 and above	7	4	2	0	13
Total		11	26	7	9	53

TABLE II (b) CHI-SQUARE TESTS

Particulars	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.191[a]	9	.046
Likelihood Ratio	21.310	9	.011
Linear-by-Linear Association	7.194	1	.007
N of Valid Cases	53		
a. 13 cells (81.3%) have expected count less than 5. The minimum expected count is .66.			

Source: Computed data

Interpretation: From the table above, it can be interpreted that the p-value is 0.046, which is less than 0.05. Therefore, there is a significant association between monthly family income and the services utilized by customers.

Hence, the null hypothesis is rejected.

H_{02}: There is no significant association between occupation and the services provided by redBus.

TABLE III (a) OCCUPATION * SERVICE PROVIDED CROSS TABULATION

Count		Service Provided					Total
		I'm making my first reservation here	Rarely	Occasionally	Often	I use redBUS to plan all of my trips	
Occupation	Student	3	10	2	0	0	18
	Private Employee	1	3	2	4	4	13
	Government Employee	0	1	2	1	1	6
	Own Business	0	3	4	0	0	7
	Others	2	4	0	0	0	9
Total		6	21	11	5	5	53

TABLE III (b) CHI-SQUARE TESTS

Particulars	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	26.987[a]	16	.042
Likelihood Ratio	30.280	16	.017
Linear-by-Linear Association	.028	1	.868
N of Valid Cases	53		
a. 23 cells (92.0%) have expected count less than 5. The minimum expected count is .57.			

Source: Computed data

Interpretation: From the table above, it can be interpreted that the p-value is 0.042, which is less than 0.05. Therefore, there is a significant association between occupation and the services provided by redBus. Hence, the null hypothesis is rejected. Determine the extent of consumer satisfaction with the redBus online travel portal. The table below displays the statistics according to this objective.

H03: There is no significant difference between the services provided by redBus and the satisfaction levels of customers.

TABLE IV ANOVA BETWEEN SERVICES PROVIDED BY REDBUS AND SATISFACTION LEVEL OF CUSTOMERS

Satisfaction Level of Customers		Sum of Squares	df	Mean Square	F	Sig.
Easy to book	Between Groups	13.681	4	3.420	2.328	.069
	Within Groups	70.508	48	1.469		
	Total	84.189	52			
Time saving	Between Groups	14.818	4	3.704	4.198	.005
	Within Groups	42.352	48	.882		
	Total	57.170	52			
Privacy and security	Between Groups	23.334	4	5.834	5.943	.001
	Within Groups	47.119	48	.982		
	Total	70.453	52			
Cost savings	Between Groups	30.065	4	7.516	8.777	.000
	Within Groups	41.105	48	.856		
	Total	71.170	52			
Customized benefits	Between Groups	21.587	4	5.397	6.135	.000
	Within Groups	42.225	48	.880		
	Total	63.811	52			
Cancellation and refund process	Between Groups	18.623	4	4.656	3.817	.009
	Within Groups	58.547	48	1.220		
	Total	77.170	52			

Source: Computed data

Interpretation: Based on the data in the table above, it can be deduced that the p-values of .005, .001, .000, and .000 are less than 0.05. Therefore, there is a significant difference between the services provided by redBus and the satisfaction levels of customers, which include ease of booking, time savings, privacy and security, cost savings, customized benefits, and the cancellation and refund process. Thus, these hypotheses are rejected. The p-value associated with ease of booking on the redBus portal is 0.069, which is greater than the significance level of 0.05; hence, this hypothesis is accepted.

VII. SUGGESTIONS AND CONCLUSION

The researcher examined customer satisfaction levels using the online travel portal redBus in this study. The services provided and the degree of customer satisfaction with redBus were assessed. The study's objectives were met, and the research questions were addressed through the conducted analysis. The findings indicate that redBus has thus far provided timely services in response to most customer expectations. There has been a statistically significant association between satisfaction levels and the services provided. As such, there is a high level of customer satisfaction with redBus services. Consequently, the research's objective was successfully met. Applications with a strong technological component are becoming prevalent in young people's daily lives. Online travel companies have ample opportunity for growth, as there are several chances to enhance their offerings and expand their clientele. To save customers time and encourage them to utilize their services, these companies will also continuously improve their user-friendly interfaces. Over the next three years, the company's upward growth trajectory will be maintained by an increase in demand for its bus ticketing services. The company's operations are unlikely to be harmed by the entry of foreign firms due to its relatively stable position in the market following market liberalization in the next five years. If the company decides not to follow through on the development plans presented in this report, it will have to face the consequences of competition for the next seven years. A bus manufacturing factory will be established in India over the next 10 years, indicating ample room for growth.

VIII. LIMITATIONS AND SCOPE FOR FURTHER STUDY

This study utilized quantitative research methods, with data collected exclusively through questionnaires. Researchers may consider conducting qualitative research in the future, which could yield additional insights. The statistics collected cannot be generalized to other states or regions, as the research is limited to the city of Chennai and its online travel portal (OTP) users. Evaluations should be conducted in other major cities across the nation, including Bangalore, Hyderabad, Cochin, and others, to encourage the dissemination of these findings.

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