Assessing Demographic Influences on Customer's Satisfaction with GSRTC's Online Booking and E-Ticketing Services

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Abstract:

Using demographic factors including age, gender, location, education, and occupation, the study evaluates customer satisfaction with Gujarat State Road Transport Corporation's (GSRTC) online booking and e-ticketing services. Primary data was gathered by questionnaires utilizing a mixed-method approach, and Mann-Whitney and Kruskal-Wallis tests were used in SPSS software for analysis. Results show that while women and older users have usability issues, young, urban, and educated users are more satisfied with the system. Reliability of service, convenience of booking, and faith in digital payments are important satisfaction aspects. To maximize the customer experience, the report recommends raising digital literacy, making systems more accessible, and boosting confidence in online transactions.

Introduction:

Founded in 1960, the Gujarat State Road Transport Corporation (GSRTC) is a government-owned enterprise dedicated to offering the people of Gujarat dependable, economical, and effective transportation services. It runs a vast bus network that links Gujarat's urban, rural, and isolated regions with those of its surrounding states. With a variety of bus services, including express, sleeper, air-conditioned, and luxury buses, to meet a range of travel demands, GSRTC is essential to the everyday mobility of millions of passengers. As a lifeline for commuters in the state, GSRTC places a high priority on passenger safety, timeliness, and affordability. In order to improve service delivery and passengers' entire travel experience, the company has used technical innovations over the years, such as online booking and e-ticketing systems.

Public transportation is one of the many industries that have changed as a result of the quick development of digital technology. One of Gujarat's leading public transportation companies, Gujarat State Road Transport Corporation (GSRTC), has embraced digitalization to boost customer happiness and service quality. The advent of online booking and e-ticketing systems is one of the biggest shifts brought about by digitization. These developments, which provide accessibility, efficiency, and convenience, have completely changed how travellers engage with GSRTC. By implementing online platforms and e-ticketing, GSRTC has streamlined its ticket booking processes, reduced manual work, and minimized long queues at ticket counters. This shift not only caters to the tech-savvy population but also bridges the gap between urban and rural commuters, ensuring that the benefits of technology are widely accessible. The impact of digitalization on GSRTC

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services is a testament to how technology can modernize traditional systems and create a more user-friendly experience.

Review of Literature

Athuman M. Athuman (2024) "The Impact of E-Ticketing System on Bus Transportation Service in Tanzania" The study was conducted in Dar es salaam, Tanzania to measure the impact of the e-ticketing systems on bus transportation. The main objective of the study was to measure the influence of e-ticketing on various aspects of bus transportation. The 60 respondents were selected for the study. The purposive and random sampling method were used to select the sample. Primary data was collected by structured questionnaires and interviews, secondary data was collected by websites, magazine etc. realisability was checked by Cronbach's alpha test. NVivo software was used for analysis. Regression analysis, Omnibus test, Hosmer and Lem show test was carried out in this study. The results show that e - ticketing systems has greatly impact on revenue administration, customer convinces and fraud prevention. The results highlight the system's crucial contribution to improving service quality.

M. Thangajesu Sathish, G. Sudha (2020) Integration of Digitalization in Road Transport: The Impact of E-Ticketing. The study was conducted at Thoothukudi. The objective of the study is to know customer perceptions towards the advancement of technology of e-ticketing, to find problems of online reservation of bus tickets, faced by passengers and to analyse customer satisfaction towards e-ticket. The 150 respondents were selected for the study, convenient sampling method was used to select the sample. Data was analysed using simple percentage. The study revealed that socio-economic factor and online ticket reservation associate with customers satisfaction on e-ticketing. Zongo, N. K., & Nassè, T. B. (2019). "Online Ticketing and Customer Satisfaction Analysis: An Exploratory Research Concerning Customers in the Context of Burkina Faso" The elements influencing customer satisfaction with online airline ticketing services are examined in the Burkina Faso study on online ticketing and customer satisfaction. Analyzing the connections between website usability, design, responsiveness, dependability, and client happiness is one of the goals. Using self-administered online and print questionnaires, 131 individuals from a stratified random sample were questioned. Sphinx IQ software and statistical tests like chi-square were used to examine the data. Results show that responsiveness, dependability, and ease of use have a greater influence on consumer satisfaction than website design. To improve the user experience, the study recommends making websites more responsive, secure, and

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accessible.

Marfo, P. K. T., & Quansah, E. (2020). "Factors Influencing the Adoption of E-Ticketing System in the Bus Transport Sector in Ghana" With an emphasis on the Kumasi Metropolis, the study examined the variables influencing the adoption of the e-ticketing system in Ghana's bus transportation industry. It used Structural Equation Modelling (SEM) and Technology Acceptance Model (TAM) for analysis. The goals were to evaluate the ways in which passengers' intents to utilize e-ticketing are influenced by perceived utility, perceived ease of use, subjective norms, and demographic factors. The poll was conducted using random and cluster sampling methods on a sample of 392 passengers. SPSS and SEM were used for the data analysis. The results indicated that passengers' adoption of e-ticketing was strongly influenced by perceived usefulness and subjective norms, whereas perceived ease of use had an indirect effect through perceived usefulness. For stakeholders creating successful e-ticketing marketing strategies, the report offers insightful information. Soegoto, E. S., Setiawan, R., & Jumansyah, R. (2020). "Impact of E-Ticketing Application on Bus Transportation in Bandung" In this study, which was carried out in Bandung, Indonesia, the impact of an e-ticketing application on bus transportation was examined in order to ascertain how e-ticketing affects the use of public transportation and its role in reducing traffic congestion. The study employed a qualitative research method, collecting data through observations, interviews, and literature studies; the sample included one of the public bus transportation service providers in Bandung; descriptive qualitative techniques were used as analysis tools. The results showed that e- ticketing increases public interest in using buses, lowers ticketing costs, improves convenience, and improves security.

Statement of the Problem:

Despite the widespread adoption of GSRTC's online booking and e-ticketing services, consumer satisfaction varies by demographic group. Women and older consumers encounter major difficulties, especially with usability and digital payments, while younger, urban, and highly educated users describe a seamless and effective experience. In order to enhance the general customer experience, this study aims to look into these demographic variations in satisfaction and pinpoint the underlying problems.

Demographic profile

Factor	Sub-Factor	No. of Respondents	Percentage (%)
Age	Below 15	4	5.06

	15-30	54	68.35
	30-45	16	20.25
	45-60	5	6.33
Gender	Male	64	81.01
	Female	15	18.99
Occupation	Students	25	31.65
	Professional	40	50.63
	Business Owner	14	17.72
Location	Urban	60	75.95
	Rural	19	24.05
Qualification	Primary	2	2.53
	Secondary	4	5.06
	Graduation	66	83.54
	Post Graduation	7	8.86
Total	-	79	100

The majority of GSRTC online booking and e-ticketing users are young (15–30 years old, 68.35%), male (81.01%), and urban dwellers (75.95%), according to the demographic data. Students (31.65%) and professionals (50.63%) make up the majority of users, suggesting that the platform is frequently utilized for both work and educational travel. A significant factor is educational background; 83.54% of users have a degree, indicating that educated people are more likely to adopt. On the other hand, decreased participation from rural users (24.05%), women (18.99%), and those with less education points to possible accessibility and knowledge limitations. The platform's reach might be increased and these gaps filled with the aid of initiatives to increase digital literacy, target marketing, and improve user experience.

Research Methodology:

Both the combination of primary and secondary data used for the study. Primary data was collected through distribution of questionnaire among the user's of GSRTC in Surat city. SPSS software used for analysis and Mann-Whitney and Kruskal-Wallis test done

Objective:

to assess how satisfied customers are with GSRTC's e-ticketing and online booking services.

to examine how customer satisfaction is affected by demographic variables like age, gender, geography, education, and occupation.

Analysis:

Reliability Statistics

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Cronbach's Alpha	N of Items
.968	29

		Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Gender	Booking Process [The process of booking a ticket online through GSRTC is straightforward and quick.]	281.000	401.000	-2.632	0.008
	Booking Process [I am satisfied with the availability of buses and routes when booking online.]	318.000	438.000	-2.126	0.034
	Booking Process [The website and app interface are user-friendly and easy to navigate.]	217.000	337.000	-3.492	0.000
	Booking Process [I have experienced no technical difficulties while booking my tickets online.]	281.000	401.000	-2.637	0.008
	Payment Process [I am satisfied with the payment options available for online booking.]	248.000	368.000	-3.099	0.002
	Payment Process [The payment process is fast, secure, and efficient.]	258.000	378.000	-2.984	0.003
	Payment Process [I have never encountered issues while making payments for my tickets on the digital platform.]	224.000	344.000	-3.402	0.001
	Payment Process [I trust the digital payment system provided by GSRTC for booking tickets.]	234.000	354.000	-3.307	0.001
	Ticket Receipt and Accessibility [I receive my e-ticket immediately after completing my booking.]	220.000	340.000	-3.520	0.000
	Ticket Receipt and Accessibility [The e-ticket provided by GSRTC is easy to access and download.]	239.000	359.000	-3.215	0.001
	Ticket Receipt and Accessibility [I find the e-ticket to be clear and easily scannable at the bus station.]	267.000	387.000	-2.903	0.004
	Ticket Receipt and Accessibility [The information on the e-ticket (e.g., bus details, date, time) is accurate and sufficient.]	233.000	353.000	-3.252	0.001
	Overall Satisfaction [I am satisfied with my overall experience using GSRTC's online booking and e-ticketing services.]	237.000	357.000	-3.222	0.001
	Overall Satisfaction [I would recommend GSRTC's online booking and e-ticketing services to others.]	219.000	339.000	-3.499	0.000
	Overall Satisfaction [I plan to continue using GSRTC's online services for future bookings.]	217.000	337.000	-3.567	0.000

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	Overall Satisfaction [I believe GSRTC's online platform enhances the overall travel experience.]	231.000	351.000	-3.459	0.001

The findings reveal significant differences in responses according to gender concerning various elements of GSRTC's online booking system. The booking process, which encompasses user- friendliness and technical issues, demonstrates considerable variation, with p-values ranging from 0.000 to 0.034, signifying a notable distinction between male and female participants. Likewise, the payment procedure and confidence in digital payment methods also show significant disparities (p-values between 0.001 and 0.003). In terms of ticket receipt and accessibility, users of different genders exhibit marked differences in their satisfaction regarding e-tickets (p-values between 0.000 and 0.004). Furthermore, overall satisfaction reveals strong gender-related variations, as men and women evaluate their experience and likelihood of future usage differently (p-values between 0.000 and 0.001). The findings imply that the perceived usability and dependability of GSRTC's online reservation system are influenced by gender.

		Kruskal-Wallis H	df	Asymp. Sig.
Age	Booking Process [I am satisfied with the availability of buses and routes when booking online.]	16.809	3	0.001
	Booking Process [The website and app interface are user-friendly and easy to navigate.]	17.723	3	0.001
	Booking Process [I have experienced no technical difficulties while booking my tickets online.]	21.370	3	0.000
	Payment Process [I am satisfied with the payment options available for online booking.]	12.481	3	0.006
	Payment Process [The payment process is fast, secure, and efficient.]	11.403	3	0.010
	Payment Process [I have never encountered issues while making payments for my tickets on the digital platform.]	9.246	3	0.026
	Payment Process [I trust the digital payment system provided by GSRTC for booking tickets.]	11.155	3	0.011
	Ticket Receipt and Accessibility [I receive my e-ticket immediately after completing my booking.]	20.775	3	0.000
	Ticket Receipt and Accessibility [The e-ticket provided by GSRTC is easy to access and download.]	7.388	3	0.061
	Ticket Receipt and Accessibility [I find the e-ticket to be clear and easily scannable at the bus station.]	15.318	3	0.002
	Ticket Receipt and Accessibility [The information on the e-ticket (e.g., bus details, date, time) is accurate and sufficient.]	12.757	3	0.005
	Overall Satisfaction [I am satisfied with my overall experience using GSRTC's online booking and e-ticketing services.]	18.666	3	0.000
	Overall Satisfaction [I would recommend GSRTC's online booking and e-ticketing services to others.]	4.927	3	0.177
	Overall Satisfaction [I plan to continue using GSRTC's online services for future bookings.]	9.814	3	0.020
	Overall Satisfaction [I believe GSRTC's online platform enhances the overall travel experience.]	12.041	3	0.007

The age-based research reveals notable variations in satisfaction ratings between age groups. The booking procedure exhibits substantial statistical significance (p-values ≤ 0.001), especially with relation to bus availability, simplicity of use, and technical concerns, suggesting that different age groups have varying perceptions of the system. Additionally, there is heterogeneity in the payment procedure (p-values ranging from 0.006 to 0.026), indicating that digital payments are more convenient for some age groups than others. Age-group differences in ticket accessibility and receipt are also evident, with immediate ticket receipt and clarity being significant determinants (p-values ≤ 0.005). Age-group differences exist in overall satisfaction, which includes recommendations for the service and continuous use (p-values as low as 0.000). According to these findings, younger people might feel more at ease using digital platforms, whereas elderly users might experience usability issues.

		Kruskal-Wallis H	df	Asymp. Sig.
Location	Booking Process [I am satisfied with the availability of buses and routes when booking online.]	4.569	1	0.033
	Booking Process [The website and app interface are user-friendly and easy to navigate.]	6.765	1	0.009
	Booking Process [I have experienced no technical difficulties while booking my tickets online.]	7.454	1	0.006
	Payment Process [I am satisfied with the payment options available for online booking.]	0.032	1	0.859
	Payment Process [The payment process is fast, secure, and efficient.]	1.402	1	0.236
	Payment Process [I have never encountered issues while making payments for my tickets on the digital platform.]	3.236	1	0.072
	Payment Process [I trust the digital payment system provided by GSRTC for booking tickets.]	3.727	1	0.054
	Ticket Receipt and Accessibility [I receive my e-ticket immediately after completing my booking.]	0.746	1	0.388
	Ticket Receipt and Accessibility [The e-ticket provided by GSRTC is easy to access and download.]	0.032	1	0.859
	Ticket Receipt and Accessibility [I find the e-ticket to be clear and easily scannable at the bus station.]	0.499	1	0.480
	Ticket Receipt and Accessibility [The information on the e-ticket (e.g., bus details, date, time) is accurate and sufficient.]	2.336	1	0.126
	Overall Satisfaction [I am satisfied with my overall experience using GSRTC's online booking and e-ticketing services.]	0.068	1	0.794
	Overall Satisfaction [I would recommend GSRTC's online booking and e-ticketing services to others.]	0.840	1	0.359
	Overall Satisfaction [I plan to continue using GSRTC's online services for future bookings.]	4.090	1	0.043
	Overall Satisfaction [I believe GSRTC's online platform enhances the overall travel experience.]	1.188	1	0.276

Significant variations in user perceptions according to their geographic location are revealed by the location-based study, especially throughout the booking process (p-values ≤ 0.033). The degree of satisfaction among users from various areas with relation to bus

availability and technical issues throughout the booking process varies. Nonetheless, characteristics connected to the payment process do not exhibit significant differences (p-values > 0.05), suggesting that the difficulties associated with digital payments are comparable across regions. Additionally, there are no significant variations in ticket accessibility and receipt (p-values > 0.05), suggesting that e-tickets are consistently accessed and received. There is some variance in overall happiness and future usage intentions, though (p = 0.043), which suggests that users' likelihood of sticking with GSRTC's online services may be influenced by their location.

		Kruskal-Wallis H	df	Asymp. Sig.
Qualification	Booking Process [I am satisfied with the availability of buses and routes when booking online.]	4.032	3	0.258
	Booking Process [The website and app interface are user-friendly and easy to navigate.]	7.206	3	0.066
	Booking Process [I have experienced no technical difficulties while booking my tickets online.]	6.352	3	0.096
	Payment Process [I am satisfied with the payment options available for online booking.]	8.530	3	0.036
	Payment Process [The payment process is fast, secure, and efficient.]	2.166	3	0.539
	Payment Process [I have never encountered issues while making payments for my tickets on the digital platform.]	5.294	3	0.151
	Payment Process [I trust the digital payment system provided by GSRTC for booking tickets.]	5.049	3	0.168
	Ticket Receipt and Accessibility [I receive my e-ticket immediately after completing my booking.]	6.866	3	0.076
	Ticket Receipt and Accessibility [The e-ticket provided by GSRTC is easy to access and download.]	2.994	3	0.393
	Ticket Receipt and Accessibility [I find the e-ticket to be clear and easily scannable at the bus station.]	1.955	3	0.582
	Ticket Receipt and Accessibility [The information on the e-ticket (e.g., bus details, date, time) is accurate and sufficient.]	2.447	3	0.485
	Overall Satisfaction [I am satisfied with my overall experience using GSRTC's online booking and e-ticketing services.]	7.714	3	0.052
	Overall Satisfaction [I would recommend GSRTC's online booking and e-ticketing services to others.]	5.746	3	0.125
	Overall Satisfaction [I plan to continue using GSRTC's online services for future bookings.]	2.804	3	0.423
	Overall Satisfaction [I believe GSRTC's online platform enhances the overall travel experience.]	1.983	3	0.576

When compared to other characteristics, the study based on educational credentials reveals fewer statistically significant variations. Technical problems and website usability are two aspects of the booking process that do not significantly vary by qualification level (p-values > 0.05). Users with varying educational backgrounds may have diverse experiences with digital transactions, as seen by the diversity in satisfaction with payment alternatives (p = 0.036). E- tickets are equally accessible across educational levels, as evidenced by the lack

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of significant variations in ticket receipt and accessibility (p-values > 0.05). Near-significant differences in overall satisfaction (p = 0.052) may indicate a pattern in which satisfaction with GSRTC's online services is marginally influenced by qualification levels.

Findings:

The study shows that demographic characteristics including gender, age, location, qualification, and occupation have an impact on customer satisfaction with GSRTC's online booking and e-ticketing services. Compared to males, women may have more usability issues and have less faith in digital payments, which could impact their level of happiness and propensity to suggest the service. Another important factor is age; younger customers report a more seamless booking experience, whereas elderly ones encounter more technological issues. Age-related differences in payment satisfaction and ticket accessibility further emphasize the necessity for an older demographic-friendly platform. Although payment and ticket accessibility are constant across locales, location-based data indicate that consumers from different regions experience differing degrees of service quality, with some areas experiencing more booking difficulties. Education level has a small effect; users with more education find the system a little bit easier to use, especially when it comes to payment alternatives. The ease of booking and payment experiences also exhibit weak to moderate connections with occupation, indicating that professional users may find it easier to adjust to the digital platform. These results are further supported by correlation analysis, which demonstrates that geography, age, and gender have a substantial impact on booking ease, digital payment trust, and overall satisfaction. To sum up, GSRTC's online services are usually successful, but in order to optimize consumer satisfaction, they need to be made more accessible for senior citizens, increase trust in digital payments, and provide a more consistent user experience throughout all locations.

Conclusion:

The study finds that although GSRTC's e-ticketing and online booking services are usually effective and valued by younger, urban, and highly educated customers, there are still major usability issues for women and older users. To improve overall customer happiness and make sure the platform is inclusive for all demographics, it is imperative to address these gaps by boosting digital literacy support and user-friendliness.

Limitation

The study's shortcomings, such as its small sample size and demographic imbalances, could

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limit how far the results can be applied. Results are less generalizable to all GSRTC users due to the subjectivity introduced by self-reported data and the limited geographic coverage. Without monitoring changes over time, the survey records user satisfaction at a specific moment in time. Response bias might exist because external factors like internet connectivity and past digital experience were not taken into account. Notwithstanding these drawbacks, the study offers insightful information, and future investigations need to broaden the sample, include additional influencing variables, and carry out long-term evaluations.

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