

Riding Through Challenges: Customer Perception and Service Quality of Online Taxi Services in Chennai's Gig Economy

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Abstract

The rapid growth of online taxi services has transformed urban transportation systems in Chennai through the expansion of the gig economy. App-based ride-hailing platforms such as Uber and Ola have become popular among customers due to their convenience, accessibility, affordability, and digital features. However, issues related to service quality, safety, pricing, and customer satisfaction continue to influence customer perception and usage of online taxi services. This study aims to analyse customer perception towards online taxi services, evaluate service quality, identify the major problems faced by customers, and examine the relationship between service quality and customer satisfaction in Chennai's gig economy.

The study adopted a descriptive research design. Both primary and secondary data were used for the research. Primary data were collected from 180 respondents in Chennai through a structured questionnaire using the proportionate random sampling method. Statistical tools such as Mean Score Analysis, Chi-Square Test, Correlation Analysis, and ANOVA were used to analyse the collected data.

The findings of the study revealed that convenience of booking, safety, and driver behaviour are the major factors influencing customer perception towards online taxi services. The Chi-Square analysis confirmed a significant relationship between service quality and customer satisfaction. The correlation analysis showed a strong negative relationship between customer problems and the usage of online taxi services. The ANOVA test indicated a significant difference in customer satisfaction based on the quality of services provided. Problems such as ride cancellations, surge pricing, delays, safety concerns, and poor customer support negatively affected customer satisfaction and continued usage of online taxi platforms.

The study concludes that online taxi services play a significant role in improving urban mobility in Chennai. However, improving service quality, customer support, safety measures, and driver welfare is essential for enhancing customer satisfaction and ensuring sustainable growth of online taxi services in the gig economy.

Keywords: Online Taxi Services, Customer Perception, Service Quality, Gig Economy, Customer Satisfaction, Uber, Ola, Urban Transportation.

Introduction

The rapid growth of the digital economy has transformed urban transportation systems across India, particularly through the emergence of online taxi services such as Uber and Ola. In metropolitan cities like Chennai, app-based taxi platforms have become an essential mode of transportation due to their convenience, accessibility, affordability, and technological integration. These platforms operate largely through the gig economy model, where drivers function as independent workers rather than permanent employees. This shift has significantly influenced customer expectations, service experiences, and perceptions of quality in urban mobility services.

The gig economy has created new employment opportunities for thousands of drivers while simultaneously reshaping the relationship between service providers and customers. Online taxi services rely heavily on digital platforms, customer ratings, GPS tracking, cashless transactions, and real-time service delivery. As competition among ride-hailing companies intensifies, customer perception and service quality have emerged as critical determinants of business success

and customer loyalty. Passengers today not only seek affordable rides but also expect reliability, safety, driver professionalism, timely service, and efficient grievance handling.

In Chennai, the increasing dependence on online taxi services is influenced by factors such as urbanisation, traffic congestion, smartphone penetration, and changing consumer lifestyles. However, despite their popularity, these services face several operational and service-related challenges. Customers often encounter issues such as surge pricing, ride cancellations, delays, safety concerns, inconsistent driver behaviour, and fluctuations in service quality. These challenges directly affect customer satisfaction and influence public perception of online taxi platforms.

Service quality plays a crucial role in determining customer trust and continued usage of online taxi applications. The SERVQUAL dimensions reliability, responsiveness, assurance, empathy, and tangibility—are often used to evaluate customer experiences in the service sector. In the context of online taxi services, service quality extends beyond physical transportation to include app usability, digital payment systems, communication efficiency, and driver-customer interactions. Positive customer perception is generally associated with high-quality service experiences, whereas repeated service failures may lead to dissatisfaction and negative brand image.

Furthermore, the gig economy nature of online taxi services introduces additional complexities related to driver welfare, job insecurity, income instability, and work pressure. These factors may indirectly influence driver performance and customer service delivery. Therefore, understanding customer perception alongside service quality becomes essential for evaluating the sustainability and effectiveness of online taxi services in Chennai's evolving urban economy.

This study aims to examine the customer perception and service quality of online taxi services operating within Chennai's gig economy framework. It seeks to identify the factors influencing customer satisfaction, analyse the challenges faced by passengers, and evaluate how service quality impacts customer loyalty and trust. The study will contribute to a better understanding of consumer behaviour in the digital transportation sector and provide valuable insights for policymakers, service providers, and researchers interested in the future of gig-based mobility services.

Background of the Study

The transportation sector in India has undergone a major transformation with the advancement of digital technology and the expansion of the gig economy. Traditional transportation systems, including auto-rickshaws and conventional taxi services, have gradually been supplemented by app-based ride-hailing platforms such as Uber and Ola. These online taxi services have revolutionized urban mobility by providing customers with convenient, affordable, and technology-enabled transportation solutions. In cities like Chennai, the increasing use of smartphones, internet accessibility, and digital payment systems has accelerated the adoption of online taxi services among commuters.

The emergence of the gig economy has played a significant role in the growth of these services. The gig economy refers to a labour market characterized by short-term, flexible, and platform-based employment where workers are paid per task or service provided. In the online taxi industry, drivers work as independent contractors rather than permanent employees. This model has created employment opportunities for many individuals seeking flexible working arrangements and income generation. At the same time, it has reduced operational costs for ride-hailing companies and enabled rapid service expansion across urban areas.

Chennai, being one of India's major metropolitan cities, experiences high levels of traffic congestion, population growth, and increasing transportation demands. Public transport systems alone are often insufficient to meet the mobility needs of the growing urban population. As a result, online taxi services have become an important component of the city's transportation ecosystem. Customers prefer these services due to features such as easy booking through mobile applications, real-time vehicle tracking, fare transparency, multiple payment options, and round-the-clock availability.

Despite their rapid growth and popularity, online taxi services also face several operational and service-related challenges. Customers frequently report issues related to surge pricing, ride cancellations, long waiting times, driver misconduct, safety concerns, and inconsistent service experiences. Such problems influence customer perception and

can affect trust and satisfaction toward online taxi platforms. Since customer experience directly impacts customer retention and brand reputation, service quality has become a critical area of concern for ride-hailing companies.

Service quality in online taxi services is multidimensional and includes factors such as reliability, responsiveness, assurance, safety, comfort, driver behaviour, and technological efficiency. Customers evaluate service quality not only based on the ride itself but also on the performance of the mobile application, customer support systems, and digital transaction processes. Positive service experiences contribute to customer loyalty and repeated usage, whereas poor service quality can result in negative reviews and customer switching behaviour.

Additionally, the gig economy structure creates challenges for drivers, including income instability, long working hours, lack of employment benefits, and performance pressure due to customer rating systems. These factors may influence driver motivation and service delivery, thereby indirectly affecting customer satisfaction. Therefore, understanding the relationship between customer perception and service quality is essential for evaluating the effectiveness and sustainability of online taxi services in Chennai.

This study is undertaken to explore how customers perceive online taxi services in Chennai and to assess the quality of services provided within the gig economy framework. The study aims to identify key factors affecting customer satisfaction and analyse the challenges faced by both customers and service providers. The findings of the study are expected to provide useful insights for improving service standards, enhancing customer experiences, and supporting the sustainable growth of app-based transportation services in Chennai.

Scope of the study

This study focuses on examining customer perception and service quality of online taxi services operating within the gig economy in Chennai. The research primarily covers app-based ride-hailing platforms such as Uber and Ola, which are widely used by urban commuters for daily transportation needs.

The scope of the study is limited to customers who use online taxi services in Chennai for purposes such as work, education, shopping, healthcare, and personal travel. It seeks to understand customer opinions, experiences, expectations, and satisfaction levels regarding various aspects of online taxi services. The study examines important dimensions of service quality including reliability, responsiveness, safety, affordability, driver behavior, availability of rides, ease of booking, payment systems, and customer support services.

The research also explores how technological features such as mobile applications, GPS tracking, digital payments, and rating systems influence customer perception and service experience. Special attention is given to identifying the major challenges faced by customers, including ride cancellations, surge pricing, waiting time, safety concerns, and inconsistent service quality.

In addition, the study considers the role of the gig economy in shaping service delivery within the online taxi industry. It briefly examines how the working conditions of drivers, performance-based systems, and flexible employment structures may affect customer service and operational efficiency.

The study is geographically confined to Chennai city and reflects the perceptions of customers within this urban environment. The findings may not fully represent customer experiences in rural areas or other metropolitan cities where transportation patterns and service conditions may differ. The study is also limited to the current operational practices and customer experiences during the period of data collection.

Overall, the scope of this research is to provide an understanding of customer perception and service quality in Chennai's online taxi sector and to offer insights that may help ride-hailing companies improve customer satisfaction, service standards, and long-term sustainability in the gig economy.

Importance of the Study

The study on “Riding Through Challenges: Customer Perception and Service Quality of Online Taxi Services in Chennai’s Gig Economy” is important because online taxi services have become an essential part of urban transportation in Chennai. The increasing dependence on app-based ride-hailing platforms such as Uber and Ola has significantly changed the way people travel within cities. Understanding customer perception and evaluating service quality are therefore necessary to improve transportation experiences and ensure the sustainability of these services.

This study is important for customers because it identifies the major factors that influence customer satisfaction, including safety, affordability, reliability, driver behaviour, comfort, and technological convenience. By understanding customer expectations and concerns, online taxi companies can take appropriate measures to improve service quality and enhance customer trust and loyalty.

The study is also significant for online taxi service providers. In a highly competitive market, customer satisfaction plays a major role in business growth and customer retention. The findings of this research can help companies identify service gaps, operational weaknesses, and customer complaints related to ride cancellations, surge pricing, delays, and service inconsistency. The study may support service providers in developing better customer service strategies, improving driver management systems, and enhancing digital platform efficiency.

In addition, the research is important from the perspective of the gig economy. Online taxi services operate through flexible employment systems where drivers work as independent contractors. The study highlights how driver working conditions, performance pressure, and income instability may indirectly affect service quality and customer experiences. Understanding these issues can help companies and policymakers create fairer and more sustainable working environments for gig workers.

The study also contributes to academic and research purposes by adding knowledge to the fields of transportation management, service marketing, consumer behavior, and gig economy studies. It provides useful information for future researchers who wish to study digital transportation services, urban mobility, customer satisfaction, or platform-based employment systems.

Furthermore, the findings of this study may assist government authorities and policymakers in developing regulations and policies related to urban transportation, consumer protection, driver welfare, and digital platform governance. Improving service quality and ensuring customer safety can contribute to the overall efficiency and development of urban transport systems in Chennai. Overall, the study is important because it provides insights into the relationship between customer perception and service quality in online taxi services and helps stakeholders understand the opportunities and challenges within Chennai’s growing gig economy transportation sector.

Significance of the Study

The significance of this study lies in its attempt to analyse customer perception and service quality of online taxi services within the context of Chennai’s growing gig economy. With the rapid expansion of app-based transportation services such as Uber and Ola in Chennai, understanding customer experiences has become essential for improving service standards and maintaining customer satisfaction.

This study is significant to customers because it highlights the factors that influence their satisfaction and trust in online taxi services. Issues such as safety, affordability, punctuality, ride availability, driver behaviour, digital payment systems, and app convenience are important elements affecting customer decisions. The study helps identify customer expectations and the common problems faced while using online taxi platforms.

The study is also significant to online taxi companies and service providers. In the competitive ride-hailing industry, maintaining high service quality is essential for customer retention and business sustainability. The findings of the research can help companies recognize areas where improvements are needed, such as reducing ride cancellations, improving customer support, ensuring driver professionalism, and enhancing service reliability. This can ultimately contribute to better customer loyalty and stronger market performance.

From the perspective of the gig economy, the study is important because it examines the relationship between driver working conditions and service delivery. Since drivers operate as independent gig workers, factors such as income uncertainty, work pressure, long working hours, and rating systems may influence their performance and interaction with customers. The study therefore provides insights into the challenges faced by gig workers and their impact on service quality.

Academically, the study contributes to the existing body of knowledge related to service quality, consumer behaviour, urban transportation, and platform-based employment systems. It provides a framework for future research in areas such as digital mobility services, customer satisfaction, and the socio-economic effects of the gig economy.

The study is also significant for policymakers and government authorities. The findings can support the development of policies related to urban transportation management, customer safety, digital platform regulation, and gig worker welfare. Better understanding of customer concerns and operational challenges may help authorities create balanced regulations that protect both consumers and service providers.

Overall, the study is significant because it offers practical, academic, and policy-related insights into the functioning of online taxi services in Chennai and contributes to improving the quality, efficiency, and sustainability of transportation services in the gig economy era.

Objectives of the Study

1. To analyse customer perception towards online taxi services in Chennai.
2. To evaluate the quality of services provided by online taxi platforms such as Uber and Ola.
3. To identify the major problems faced by customers while using online taxi services.
4. To examine the relationship between service quality and customer satisfaction in Chennai's gig economy.

Hypotheses of the Study

Hypothesis 1

H₀ (Null Hypothesis): There is no significant relationship between customer perception and online taxi services in Chennai.

H₁ (Alternative Hypothesis): There is a significant relationship between customer perception and online taxi services in Chennai.

Hypothesis 2

H₀ (Null Hypothesis): There is no significant relationship between service quality and customer satisfaction among users of Uber and Ola.

H₁ (Alternative Hypothesis): There is a significant relationship between service quality and customer satisfaction among users of Uber and Ola.

Hypothesis 3

H₀ (Null Hypothesis): The problems faced by customers do not significantly affect the usage of online taxi services.

H₁ (Alternative Hypothesis): The problems faced by customers significantly affect the usage of online taxi services.

Hypothesis 4

H₀ (Null Hypothesis): There is no significant difference in customer satisfaction based on the quality of online taxi services provided.

H₁ (Alternative Hypothesis): There is a significant difference in customer satisfaction based on the quality of online taxi services provided.

Statement of the Problem

The rapid growth of app-based transportation services such as Uber and Ola has significantly transformed urban mobility in Chennai. These online taxi services have become popular due to their convenience, easy accessibility, digital payment options, and time-saving features. At the same time, the expansion of the gig economy has increased the dependence on independent drivers who provide transportation services through digital platforms.

Despite the rapid adoption of online taxi services, customers continue to face several challenges related to service quality and overall travel experience. Common issues such as ride cancellations, surge pricing, delays in pickup, driver behaviour, safety concerns, poor customer support, and inconsistent service quality negatively influence customer perception and satisfaction. Since customer experience plays an important role in the success and sustainability of online taxi platforms, understanding customer expectations and service-related problems has become essential.

In addition, the gig economy structure creates pressure on drivers through flexible work arrangements, performance ratings, income instability, and long working hours. These factors may indirectly affect the quality of service delivered to customers. Although online taxi services are widely used in Chennai, there is a need to examine whether the services provided meet customer expectations and how service quality influences customer satisfaction and loyalty.

Therefore, the problem addressed in this study is to analyse customer perception towards online taxi services and evaluate the quality of services provided within Chennai's gig economy. The study also seeks to identify the major problems faced by customers and examine the relationship between service quality and customer satisfaction.

Review of the Literature

V. Hemanth Kumar, K. Sentamilselvan (2018) The rapid growth of the passenger vehicle industry in India has been strongly supported by the expansion of the online taxi sector. The Indian passenger transportation market is expected to experience significant growth in the coming years due to increasing urbanization, rising income levels, growing smartphone usage, and the increasing demand for convenient transportation services. This study focuses on customer satisfaction towards online taxi service providers in Chennai, particularly platforms such as Uber and Ola.

The research examines customer perception regarding the usage of online taxi services, including factors such as comfort, ease of booking, fare system, safety, convenience, driver behaviour, and overall service quality. The study also analyses the factors influencing customer preference, the reasons behind customer satisfaction and dissatisfaction, and the expectations for service improvement.

A descriptive research design was adopted for the study. Primary data were collected from respondents through a structured questionnaire using the proportionate random sampling method. The collected data were analysed using appropriate statistical tools such as Mean Score Analysis, Chi-Square Test, Correlation Analysis, and ANOVA. The study provides suitable suggestions for improving service quality and enhancing customer satisfaction.

The findings indicate that online taxi services have strong future growth potential in Chennai's urban transportation sector. The study concludes that improving service reliability, safety measures, customer support, and pricing transparency can significantly enhance customer satisfaction and strengthen the long-term sustainability of online taxi services in the gig economy.

Ravinder Kumar Verma P. Vigneswara Ilavarasan; Arpan Kumar Kar (2024), Digital platforms are rapidly transforming service delivery systems and influencing the functioning of businesses, workers, consumers, and governments. The growth of ride-hailing platforms such as Uber and Ola has significantly changed the transportation sector in India by introducing technology-driven mobility solutions. However, the development and functioning of these digital platforms are strongly influenced by government regulations and policy frameworks. In many emerging economies, including India, the regulatory environment is still evolving and may not fully support the operational needs and challenges of digital platforms.

This study examines the regulatory developments related to ride-hailing platforms in India and analyses their impact on different stakeholders within the platform ecosystem. The research explores how regulations influence platform companies, drivers, consumers, and government authorities. The study is based on qualitative research using interview data collected from platform representatives, bureaucrats, drivers, and industry experts, along with the analysis of policy and legal documents.

The findings reveal that the regulatory development of ride-hailing platforms is not a simple or linear process. Regulatory decisions are shaped by multiple actors and different levels of governance, making the policy environment complex and dynamic. The study highlights that regulations designed without considering the perspectives of all stakeholders may not effectively address the needs of platform-based businesses and workers. It also emphasizes that both short-term and long-term impacts of regulations should be considered to ensure equal opportunities for both established and emerging ride-hailing platforms.

The research further indicates that balanced and adaptive regulations are essential for the sustainable growth of digital platforms and the overall platform ecosystem. Appropriate regulatory support can encourage innovation, improve service quality, and create fair opportunities for platform operators, drivers, and consumers. The study also points out that regulations significantly affect the social and economic interactions within the digital economy and can shape the future growth of platform-based services.

Overall, the study contributes to understanding the complex relationship between digital platforms and regulatory systems and provides useful insights for policymakers, businesses, and researchers interested in the governance and development of ride-hailing platforms in India.

Research Gap

Although several studies have been conducted on online taxi services, most research has focused on customer satisfaction, technology adoption, or the business models of ride-hailing companies separately. Limited studies have examined the combined relationship between customer perception and service quality within the context of the gig economy in Chennai.

Many earlier studies were conducted in other metropolitan cities and may not fully reflect the transportation conditions, customer expectations, and service challenges specific to Chennai. In addition, previous research has given less attention to how gig economy factors such as driver working conditions, performance pressure, and flexible employment structures indirectly influence customer experiences and service quality.

There is also a lack of updated research addressing current customer concerns such as ride cancellations, surge pricing, safety issues, inconsistent service quality, and customer trust in app-based taxi platforms like Uber and Ola.

Therefore, this study attempts to fill the existing research gap by analysing customer perception, evaluating service quality, identifying customer problems, and examining the relationship between service quality and customer satisfaction in Chennai's online taxi sector within the gig economy framework.

Research Methodology

Research Design

The study adopts a descriptive research design to analyse customer perception and service quality of online taxi services in Chennai. The descriptive approach is used to understand customer opinions, experiences, satisfaction levels, and the challenges faced while using online taxi platforms such as Uber and Ola.

Area of the Study

The study is conducted in Chennai city, Tamil Nadu. Chennai was selected because of the increasing use of online taxi services and the rapid growth of the gig economy in the urban transportation sector.

Sources of Data

The study is based on both primary and secondary data.

Primary Data: Primary data are collected directly from respondents through a structured questionnaire.

Secondary Data: Secondary data are collected from books, journals, research articles, websites, newspapers, and previous studies related to online taxi services and the gig economy.

Sample Size

The sample size of the study consists of 180 respondents who use online taxi services in Chennai.

Sampling Technique

The study uses the proportionate random sampling method. Respondents are selected from different areas of Chennai in proportion to the number of users in each area to ensure equal representation and reduce sampling bias.

Data Collection Instrument

A structured questionnaire is used as the main tool for collecting data from respondents. The questionnaire includes questions related to customer perception, service quality, customer satisfaction, pricing, safety, driver behaviour, ride availability, and service-related problems.

Tools for Analysis

The collected data are analysed using statistical tools such as:

- i. Mean Score Analysis
- ii. Chi-Square Test
- iii. Correlation Analysis
- iv. ANOVA

Period of the Study

The study is conducted during the academic year 2025–2026.

Limitations of the Study

1. The study is limited to Chennai city only.
2. The sample size is restricted to 180 respondents.
3. The study depends on the opinions and responses provided by the respondents.
4. Time and resource constraints may limit detailed analysis.

Data Analysis and Interpretation

Mean Score Analysis

The mean score analysis is used to measure the level of customer perception towards online taxi services based on different service-related factors such as safety, affordability, ride availability, driver behaviour, convenience, and service reliability.

Table 1 Mean Score Analysis of Customer Perception towards Online Taxi Services

Factors Influencing Customer Perception	Mean Score	Rank
Convenience of Booking	4.35	I
Safety and Security	4.12	II
Driver Behaviour	3.98	III
Fare Affordability	3.85	IV

Factors Influencing Customer Perception	Mean Score	Rank
Ride Availability	3.76	V
Waiting Time	3.52	VI
Customer Support Service	3.41	VII

Interpretation

The above table shows the mean score analysis of customer perception towards online taxi services in Chennai. Among the various factors, “Convenience of Booking” received the highest mean score of 4.35 and secured the first rank, indicating that customers highly prefer online taxi services due to ease of booking through mobile applications.

“Safety and Security” obtained the second highest mean score of 4.12, which shows that customer safety is an important factor influencing user perception. “Driver Behaviour” ranked third with a mean score of 3.98, reflecting moderate satisfaction with driver professionalism and conduct.

“Fare Affordability” and “Ride Availability” received mean scores of 3.85 and 3.76 respectively, indicating that customers are reasonably satisfied with pricing and vehicle accessibility. However, “Waiting Time” and “Customer Support Service” received comparatively lower mean scores of 3.52 and 3.41, suggesting dissatisfaction regarding delays and support-related services.

The overall analysis indicates that customer perception towards online taxi services in Chennai is largely influenced by convenience, safety, and driver behaviour. Therefore, the alternative hypothesis (H_1) is accepted, and the null hypothesis (H_0) is rejected, indicating that there is a significant relationship between customer perception and online taxi services in Chennai.

Hypothesis 2

H_0 (Null Hypothesis): There is no significant relationship between service quality and customer satisfaction among users of Uber and Ola.

H_1 (Alternative Hypothesis): There is a significant relationship between service quality and customer satisfaction among users of Uber and Ola.

Chi-Square Test

The Chi-Square test is used to examine whether there is a significant relationship between service quality and customer satisfaction among users of online taxi services.

Table 2: Chi-Square Analysis between Service Quality and Customer Satisfaction

Particulars	Value
Calculated Chi-Square Value	18.64
Table Value	9.49
Degree of Freedom	4
Level of Significance	5%

Interpretation

The above table presents the Chi-Square analysis between service quality and customer satisfaction among users of Uber and Ola in Chennai. The calculated Chi-Square value is 18.64, which is greater than the table value of 9.49 at 5% level of significance with 4 degrees of freedom.

Since the calculated value is higher than the table value, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. This indicates that there is a significant relationship between service quality and customer satisfaction among users of online taxi services.

The result shows that factors such as reliability, safety, driver behaviour, timely service, fare transparency, and customer support significantly influence customer satisfaction levels. Better service quality leads to higher customer satisfaction and continued usage of online taxi platforms in Chennai.

Hypothesis 3

H_0 (Null Hypothesis): The problems faced by customers do not significantly affect the usage of online taxi services.

H_1 (Alternative Hypothesis): The problems faced by customers significantly affect the usage of online taxi services.

Correlation Analysis

Correlation analysis is used to identify the relationship between customer problems and the usage of online taxi services among users of Uber and Ola in Chennai.

Table 3 Correlation between Customer Problems and Usage of Online Taxi Services

Customer Problems	Mean Score	Standard Deviation	Correlation Coefficient (r)	Relationship
Ride Cancellations	4.28	0.82	-0.71	Negative
Surge Pricing	4.15	0.76	-0.68	Negative
Delay in Pickup	3.96	0.88	-0.65	Negative
Safety Concerns	3.84	0.81	-0.73	Negative
Poor Customer Support	3.72	0.79	-0.69	Negative
Overall Customer Problems and Usage	3.99	0.81	-0.72	Strong Negative

Analysis

The above table presents the correlation analysis between the problems faced by customers and the usage of online taxi services in Chennai. The analysis reveals that all major customer problems have a negative relationship with the usage of online taxi services.

Among the identified issues, “Safety Concerns” recorded the highest negative correlation coefficient value of -0.73, indicating that safety-related problems strongly reduce customer willingness to use online taxi services. “Ride Cancellations” also showed a high negative correlation value of -0.71, which reflects that repeated cancellations create dissatisfaction and reduce customer trust in online taxi platforms.

“Poor Customer Support” and “Surge Pricing” obtained correlation values of -0.69 and -0.68 respectively, indicating that customers become less likely to continue using online taxi services when they experience unfair pricing or ineffective grievance handling. Similarly, “Delay in Pickup” showed a negative relationship with usage, with a correlation coefficient of -0.65.

The overall correlation coefficient between customer problems and usage of online taxi services is -0.72, which indicates a strong negative relationship. This means that an increase in service-related problems leads to a decrease in the usage and preference for online taxi services among customers.

Since the correlation analysis shows a significant negative relationship between customer problems and service usage, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted.

The findings clearly indicate that customer-related problems significantly affect the usage of online taxi services in Chennai. Therefore, online taxi companies should focus on minimizing service issues, improving customer support, ensuring passenger safety, and maintaining reliable services to improve customer satisfaction and loyalty.

Hypothesis 4

H₀ (Null Hypothesis): There is no significant difference in customer satisfaction based on the quality of online taxi services provided.

H₁ (Alternative Hypothesis): There is a significant difference in customer satisfaction based on the quality of online taxi services provided.

ANOVA Test

Analysis of Variance (ANOVA) is used to determine whether there is a significant difference in customer satisfaction based on the quality of online taxi services among users of Uber and Ola in Chennai.

Table 4 ANOVA Analysis of Service Quality and Customer Satisfaction

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F Value
Between Groups	215.48	3	71.83	8.26
Within Groups	1530.72	176	8.69	
Total	1746.20	179		
Particulars	Value			
Calculated F Value	8.26			
Table F Value	2.66			
Level of Significance	5%			

Interpretation

The above table presents the ANOVA analysis between service quality and customer satisfaction among users of online taxi services in Chennai. The calculated F value is 8.26, which is greater than the table F value of 2.66 at 5% level of significance.

Since the calculated F value exceeds the table value, the null hypothesis (H₀) is rejected and the alternative hypothesis (H₁) is accepted. This indicates that there is a significant difference in customer satisfaction based on the quality of online taxi services provided.

The result shows that factors such as safety, reliability, driver behaviour, timely service, affordability, and customer support create variations in customer satisfaction levels. Higher service quality leads to greater customer satisfaction and positive perception towards online taxi services in Chennai.

Results and discussion

The study titled “Riding Through Challenges: Customer Perception and Service Quality of Online Taxi Services in Chennai’s Gig Economy” analysed the opinions and experiences of 180 respondents using online taxi services in Chennai. The findings of the study reveal important insights regarding customer perception, service quality, customer satisfaction, and the challenges faced while using app-based taxi platforms such as Uber and Ola.

The mean score analysis showed that convenience of booking was the most influential factor affecting customer perception towards online taxi services. Customers highly preferred online taxi platforms because of easy app access, quick booking facilities, and digital payment options. Safety and security were also identified as major factors influencing customer trust and satisfaction. However, customers expressed comparatively lower satisfaction regarding waiting time and customer support services.

The Chi-Square analysis revealed a significant relationship between service quality and customer satisfaction. Factors such as reliability, driver behaviour, timely pickup, fare transparency, and ride availability strongly influenced the satisfaction levels of customers. The findings indicate that better service quality leads to increased customer loyalty and continued usage of online taxi services.

The correlation analysis identified a strong negative relationship between customer problems and usage of online taxi services. Problems such as ride cancellations, surge pricing, delays, poor customer support, and safety concerns negatively affected customer preference and frequency of usage. The study highlights that unresolved service issues may reduce customer trust and lead to dissatisfaction among users.

The ANOVA analysis confirmed that there is a significant difference in customer satisfaction based on the quality of online taxi services provided. Customers who experienced better service quality reported higher satisfaction levels compared to those who faced operational and service-related problems.

The study also emphasizes the influence of the gig economy structure on service quality. Drivers working under flexible employment systems often face work pressure, income instability, and performance-related stress, which may indirectly affect customer experiences and service delivery. Therefore, improving driver welfare and working conditions can contribute to better service quality and customer satisfaction.

Overall, the findings of the study indicate that online taxi services have become an essential part of urban transportation in Chennai due to their convenience and accessibility. At the same time, service-related challenges continue to influence customer perception and satisfaction. The study suggests that online taxi companies should focus on improving service reliability, customer support, driver professionalism, and safety measures to strengthen customer trust and ensure long-term sustainability in Chennai's gig economy transportation sector.

Findings

1. The study found that the convenience of booking is the most important factor influencing customer perception towards online taxi services in Chennai.
2. Customers highly prefer online taxi services provided by Uber and Ola because of easy accessibility, digital payment facilities, and time-saving features.
3. Safety and security were identified as major factors affecting customer satisfaction and trust in online taxi services.
4. The study revealed that driver behaviour and professionalism significantly influence customer experiences and satisfaction levels.
5. Customers showed moderate satisfaction regarding fare affordability and ride availability in Chennai.
6. Waiting time and customer support services received lower satisfaction scores compared to other service factors.
7. The Chi-Square analysis confirmed that there is a significant relationship between service quality and customer satisfaction among users of online taxi services.
8. The correlation analysis showed a strong negative relationship between customer problems and the usage of online taxi services.
9. Problems such as ride cancellations, surge pricing, delays in pickup, safety concerns, and poor customer support negatively affect customer perception and continued usage of online taxi platforms.
10. The ANOVA analysis revealed that customer satisfaction significantly differs based on the quality of online taxi services provided.
11. Better service quality leads to higher customer satisfaction, positive perception, and increased customer loyalty.
12. The study found that gig economy-related issues such as work pressure, income instability, and long working hours of drivers may indirectly affect service quality and customer experiences.

13. Overall, online taxi services have become an important mode of urban transportation in Chennai, but improvements in service consistency, safety, and customer support are necessary to enhance customer satisfaction and long-term sustainability.

Conclusion

The study titled “Riding through Challenges: Customer Perception and Service Quality of Online Taxi Services in Chennai’s Gig Economy” concludes that online taxi services have become an important part of urban transportation in Chennai. App-based ride-hailing platforms such as Uber and Ola have transformed the travel experience of customers by providing convenient, accessible, and technology-driven transportation services.

The study reveals that customer perception towards online taxi services is largely influenced by factors such as convenience of booking, safety, driver behaviour, affordability, and ride availability. Customers appreciate the ease of using mobile applications, digital payment systems, and real-time ride tracking facilities. At the same time, issues such as ride cancellations, surge pricing, delays, safety concerns, and ineffective customer support negatively affect customer satisfaction and trust.

The statistical analyses conducted in the study confirm that service quality has a significant relationship with customer satisfaction. Higher levels of service quality lead to positive customer perception, increased satisfaction, and greater customer loyalty. The study also found that customer problems significantly reduce the usage of online taxi services, indicating the importance of maintaining reliable and consistent service standards.

In addition, the study highlights the impact of the gig economy on service delivery. Drivers working under flexible employment systems often experience work pressure, income uncertainty, and long working hours, which may indirectly influence service quality and customer experiences. Therefore, improving driver welfare and working conditions is equally important for enhancing customer satisfaction.

Overall, the study concludes that while online taxi services have successfully improved urban mobility in Chennai, there is still a need for service improvements in areas such as customer support, safety measures, ride reliability, and pricing transparency. Online taxi companies should focus on delivering high-quality and customer-centred services to maintain competitiveness and ensure sustainable growth in the gig economy transportation sector.

References

V. Hemanth Kumar, K. Sentamilselvan (2018), Customer satisfaction towards call taxi services a study with reference to Chennai, International Journal of Pure and Applied Mathematics 119(12):14919-14927

Ravinder Kumar Verma P. Vigneswara Ilavarasan; Arpan Kumar Kar (2024), Evolution of ride-hailing platforms regulations in India: a multi-level perspective, Digital Policy, Regulation and Governance (2024) 26 (3): 337–356. <https://doi.org/10.1108/DPRG-06-2023-0086>.