



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

# IJRSET

International Journal of Innovative Research in  
**SCIENCE | ENGINEERING | TECHNOLOGY**



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 13, Issue 5, May 2024

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

Impact Factor: 8.423

 9940 572 462

 6381 907 438

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# A Case Study on India's Taxi War at Kolkata

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**ABSTRACT:** This thesis examines the competition between Uber and Ola in Kolkata, India's taxi market. It analyzes their strategies, consumer preferences, regulatory challenges, and impacts on the local economy. Key findings include the companies' transformation of urban mobility, challenges in regulation and pricing, and emerging trends like safety and environmental concerns. The research contributes to understanding the sharing economy's impact on urban transportation and offers insights for policymakers, industry stakeholders, and scholars studying technology and regulation in developing countries.

## 1.1 Rationale For The Study And Motivation

The taxi industry in India has undergone a significant transformation with the entry of app-based taxi services like Uber and Ola. These companies have revolutionized urban transportation, offering convenience, competitive pricing, and service innovation. Kolkata, being one of the major metropolitan cities in India, presents a unique battleground for these companies due to its dense population, urban layout, and transportation needs. This study aims to delve into the dynamics of the competition between Uber and Ola in Kolkata, assessing their impact on the local taxi industry, consumer behaviour, and urban mobility.

## 1.2 Statement of the Research Problem

Despite the apparent success and consumer adoption of app-based taxi services in Kolkata, there remains a gap in understanding the comprehensive impact of this "taxi war" on various stakeholders including traditional taxi operators, urban transportation planning, and consumer satisfaction. This study seeks to fill this gap by evaluating the strategies employed by Uber and Ola, their market share and performance metrics in Kolkata, and the resultant socio-economic implications.

## 1.3 Review of Literature

The term paper provides a foundational understanding of the taxi industry's evolution in India, highlighting the shift from traditional taxi services to the app-based model introduced by Ola and Uber. It offers insights into the initial challenges, market penetration strategies, and the regulatory environment. However, to ensure the thesis is current and relevant, new literature needs to be reviewed, focusing on recent developments, consumer trends, and the impact of COVID-19 on the industry. This should include studies on changes in consumer preferences, the adoption of safety measures, and the strategic responses of Uber and Ola to navigate the pandemic-induced challenges.

## 1.4 Identification of Research Gaps

While the term paper provides an extensive overview of the "taxi war" between Uber and Ola, there is a need to explore the long-term implications of their competition, especially in the post-pandemic era. The research should investigate how the pandemic has altered the competitive landscape, affected driver welfare, and shifted consumer expectations towards sustainable and safe transportation options. Additionally, the role of technology in shaping future mobility solutions in urban India remains underexplored.

## 1.5 Theoretical Underpinnings

This study will draw upon theories of competitive strategy, consumer behaviour, and urban mobility to frame the analysis of Uber and Ola's operations in Kolkata. It will use Porter's Five Forces Model to analyse the competitive intensity and attractiveness of the app-based taxi market. Consumer behaviour theories will help understand the factors influencing consumer choice between Uber, Ola, and other transportation options. Urban mobility theories will provide a lens to assess the broader impact of app-based taxis on Kolkata's transportation ecosystem.

## II. SCOPE OF THE STUDY

The study focuses on the competitive dynamics between Uber and Ola in the context of Kolkata's urban transportation ecosystem. It aims to analyse the strategies, market share, consumer preferences, and the socio-economic implications of their operations. The study is geographically limited to Kolkata but also draws comparative insights from other Indian cities to understand broader trends affecting the app-based taxi industry.

### 2.1 Research Objectives

- To determine the predominant app-based taxi service among consumers in Kolkata in terms of frequency of use.
- To assess consumer preferences and satisfaction levels with Uber and Ola, especially considering the impact of the COVID-19 pandemic.
- To analyse the strategies employed by Uber and Ola to navigate regulatory challenges and market competition.
- To explore the socio-economic implications of the "taxi war" on traditional taxi services, driver welfare, and urban mobility in Kolkata.
- To investigate the shift in consumer preference between Uber and Ola over the past year among users in Kolkata.

### 2.2 Framing of Research Hypotheses

- **Null Hypothesis (H0):** There is no significant difference in the frequency of use among app-based taxi services by consumers in Kolkata.
- **Alternative Hypothesis (H1):** There is a significant difference in the frequency of use among app-based taxi services by consumers in Kolkata, indicating a predominant service.
- **Null Hypothesis (H0):** The COVID-19 pandemic has not significantly affected consumer preferences and satisfaction levels with Uber and Ola in Kolkata.
- **Alternative Hypothesis (H1):** The COVID-19 pandemic has significantly affected consumer preferences and satisfaction levels with Uber and Ola in Kolkata.
- **Null Hypothesis (H0):** There has been no significant shift in consumer preference between Uber and Ola among users in Kolkata over the past year.

**Alternative Hypothesis (H1):** There has been a significant shift in consumer preference between Uber and Ola among users in Kolkata over the past year.

### 2.3 Research Design

The study will utilize a descriptive research design, employing an online questionnaire as the sole method for collecting quantitative data. This approach will enable an efficient and effective assessment of consumer preferences, satisfaction levels, and perceptions regarding Uber and Ola's services in Kolkata. The use of Google Forms as the medium for survey distribution facilitates a wider reach, allowing for the collection of data from a diverse sample of app-based taxi service users in the city.

### 2.4 Methods for Data Collection & Variables of the Study

#### Data Collection Method

- **Online Questionnaire:** A structured questionnaire will be developed and distributed via Google Forms to target respondents who have used Uber and Ola services in Kolkata. The questionnaire will be designed to capture data on user satisfaction, service preferences, impact of COVID-19 on usage patterns, and other relevant variables. The link to the questionnaire will be shared through social media platforms, forums, and other online channels frequented by potential respondents to ensure a broad and diverse participant base.

#### Sample

- **Sampling Technique:** Convenience sampling will be employed to select respondents for the study. This non-probability sampling technique is chosen due to its practicality and efficiency in reaching a large number of users of app-based taxi services through online means.
- **Sample Size:** The target sample size will be determined based on the response rate and the diversity of responses needed to achieve meaningful analysis. A preliminary target of 100-200 completed responses is considered adequate for the scope of this study.

#### Questionnaire Design

The questionnaire will be divided into several sections to systematically gather data on various aspects of the study, including:



1. **Demographic Information:** Age, gender, occupation, frequency of app-based taxi usage.
2. **Service Preference and Usage Patterns:** Preferences between Uber and Ola, reasons for preference, changes in usage patterns post-COVID-19.
3. **Satisfaction and Service Quality:** Ratings of service quality attributes such as pricing, availability, safety measures, driver behaviours, and overall satisfaction.
4. **Impact of COVID-19:** Changes in usage frequency, perception of safety measures implemented by Uber and Ola, and preference shifts due to the pandemic.

### III. DATA ANALYSIS

- The collected data will be analysed using statistical software to compute frequencies, means, standard deviations, and to perform hypothesis testing. Cross-tabulation and chi-square tests will be used to examine the relationship between demographic variables and service preferences, satisfaction levels, and the impact of COVID-19 on user behaviour.

This focused approach on using Google Forms for survey distribution aligns with the research objectives by enabling the collection of targeted data from app-based taxi users in Kolkata, which is essential for understanding the current market dynamics and consumer sentiments towards Uber and Ola.

#### 3.1 Techniques for Data Analysis

The analysis of the survey data collected through Google Forms focused on quantitative methods to interpret the responses from 100 participants. Descriptive statistics were utilized to summarize demographic information, service preferences, usage patterns, satisfaction levels, and the impact of COVID-19 on app-based taxi services. Cross-tabulation and chi-square tests were employed to examine relationships between variables such as age, gender, occupation, and preferences for Uber versus Ola.

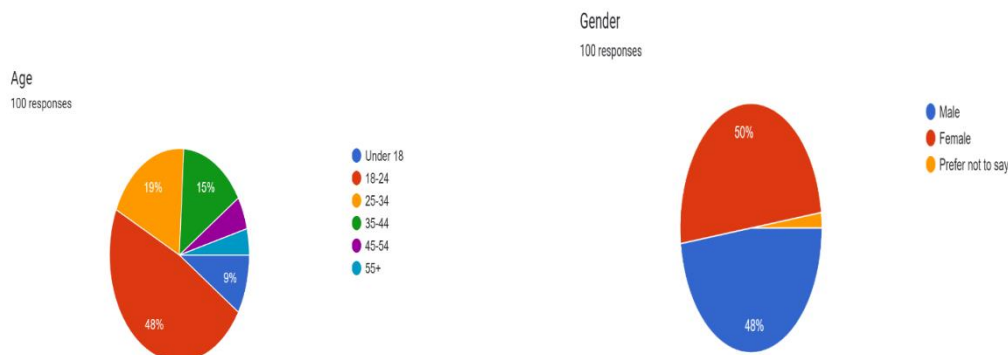
#### 3.2 Hypotheses Testing and Methods

The hypotheses formulated in Chapter 2 were tested using the collected survey data. The primary hypotheses included the examination of significant differences in consumer satisfaction levels between Uber and Ola users, and the impact of COVID-19 on user preferences and behaviour's.

#### 3.3 Data Interpretation

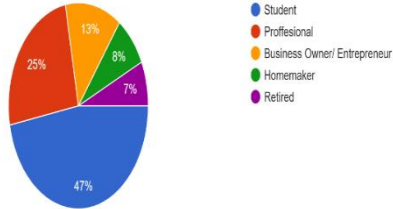
##### Demographic Information

- The survey respondents were predominantly within the age group of 18-24 (48%), with a balanced gender distribution (50% male, 48% female).
- The majority identified themselves as students (48%), followed by professionals (25%).

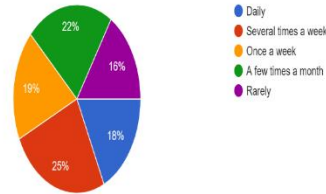




Occupation  
100 responses



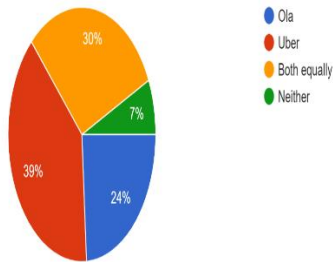
Frequency of App-Based Taxi Usage  
100 responses



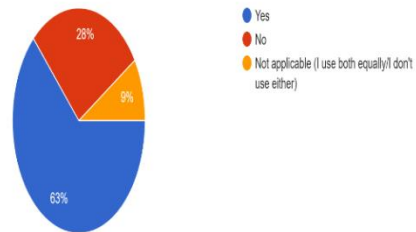
**Service Preference and Usage Patterns**

- 24% of the respondents preferred Ola over Uber (39%), with 30% using both services equally.
- The primary factors influencing service choice were pricing (67%), availability of rides (64%), and safety measures (47%).

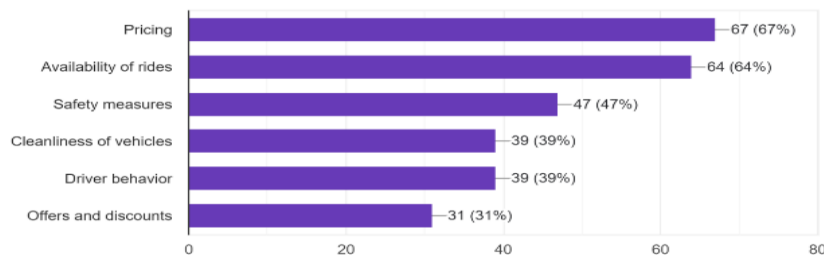
Which app-based taxi service do you use more frequently?  
100 responses



Have you changed your preference between Uber and Ola in the past year?  
100 responses



What primarily influences your choice of service?  
100 responses

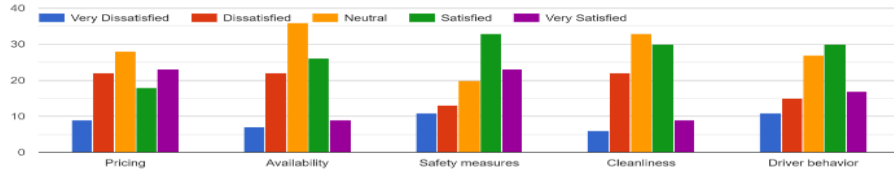


**Changes in Preference**

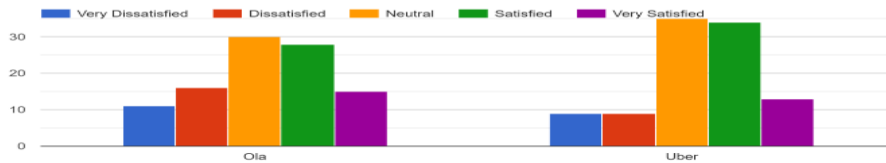
- A significant 68% of participants indicated a change in their preference between Uber and Ola in the past year, highlighting the dynamic nature of consumer choices in this market.
- **Satisfaction and Service Quality**
- When asked about satisfaction with various aspects of the services, respondents showed a general trend of neutrality towards pricing, availability, safety measures, and cleanliness, indicating areas for improvement for both companies.
- Overall satisfaction levels with Uber and Ola showed a preference for Ola, albeit marginally.



How satisfied are you with the following aspects of Uber and Ola?



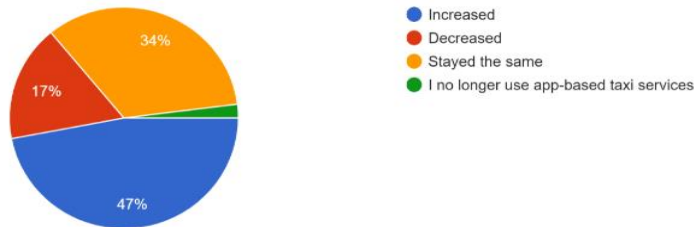
Overall, how satisfied are you with Uber and Ola?



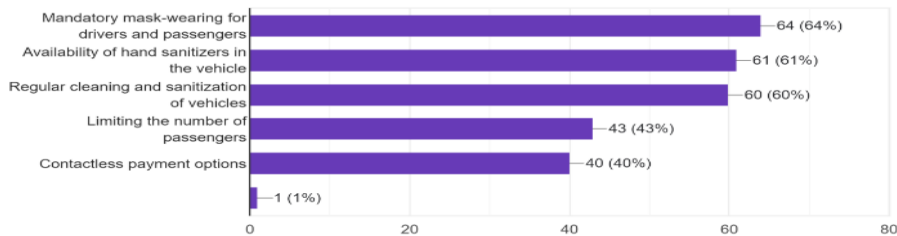
**Impact of COVID-19**

- The pandemic has led to an increase in app-based taxi service usage by 47% of respondents, while 17% reported a decrease, indicating a mixed impact.
- Key safety measures deemed important by users include regular cleaning and sanitization of vehicles (60%), mandatory mask-wearing (64%), and availability of hand sanitizers (61%).

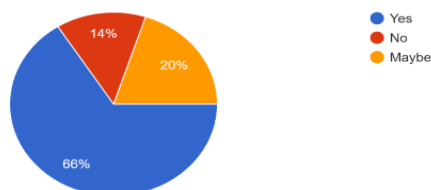
Has your usage of app-based taxi services changed since the COVID-19 pandemic began?  
100 responses



What safety measures are most important to you when using an app-based taxi service during the pandemic?  
100 responses



Would you recommend Uber/Ola to your friends and family?  
100 responses

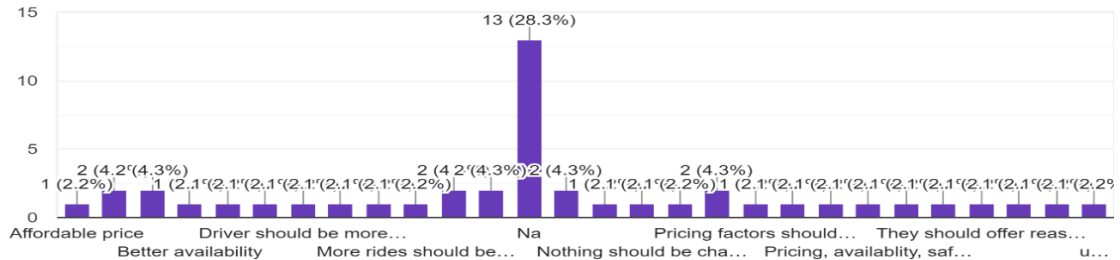




**Recommendations for Improvement**

- Respondents provided varied suggestions for improvements, with affordable pricing and better availability being the most cited. This indicates a demand for more cost-effective and readily available taxi services in Kolkata.

What improvements or changes would you like to see in Uber/Ola services?  
46 responses



The analysis of survey data revealed insightful trends in consumer preferences and satisfaction levels with Uber and Ola in Kolkata. While Ola slightly edges out Uber in overall satisfaction, both services have areas for improvement, particularly in terms of pricing and availability. The impact of COVID-19 has undeniably affected user behaviour's, with a noticeable shift towards prioritizing safety measures. The feedback collected offers valuable directions for Uber and Ola to enhance their services and better meet consumer expectations in the evolving landscape of urban mobility.

Null Hypothesis	There is no significant difference in the frequency of use among app-based taxi services by consumers in Kolkata.				
Alternate Hypothesis	There is a significant difference in the frequency of use among app-based taxi services by consumers in Kolkata, indicating a predominant service.				
app-based taxi	Ola	Uber	Both equally	Neither	Total
Observation	24	39	30	7	100
O	E	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E	
24	25	-1	1	0.04	alpha 0.1
39	25	14	196	7.84	df 3
30	25	5	25	1	X <sup>2</sup> alpha 6.251
7	25	-18	324	12.96	X <sup>2</sup> calculated 21.84
				21.84	
<b>X<sub>cal</sub> &gt; X<sub>alpha</sub>... Hence, Reject Null Hypothesis.</b>					

**Interpretation: -**

Since X<sup>2</sup> calculated is greater than X<sup>2</sup> alpha, hence null hypothesis is rejected. Therefore, there is a significant difference in the frequency of use among app-based taxi services by consumers in Kolkata, indicating a predominant service.

Null Hypothesis	The COVID-19 pandemic has not significantly affected consumer preferences and satisfaction levels with Uber and Ola in Kolkata.				
Alternate Hypothesis	The COVID-19 pandemic has significantly affected consumer preferences and satisfaction levels with Uber and Ola in Kolkata.				
After COVID-19 Preference	Increased	Decreased	Stayed the same	I no longer use app-based taxi services	Total
Observation	47	17	34	2	100
O	E	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E	
47	25	22	484	19.36	alpha 0.1
17	25	-8	64	2.56	df 3
34	25	9	81	3.24	X <sup>2</sup> alpha 6.251
2	25	-23	529	21.16	X <sup>2</sup> calculated 46.32
				46.32	
<b>X<sub>cal</sub> &gt; X<sub>alpha</sub>... Hence, Reject Null Hypothesis.</b>					

**Interpretation: -**

Since X<sup>2</sup> calculated is greater than X<sup>2</sup> alpha, hence null hypothesis is rejected. Therefore, the COVID-19 pandemic has significantly affected consumer preferences and satisfaction levels with Uber and Ola in Kolkata.



Null Hypothesis	There has been no significant shift in consumer preference between Uber and Ola among users in Kolkata over the past year.			
Alternate Hypothesis	There has been a significant shift in consumer preference between Uber and Ola among users in Kolkata over the past year.			
Shift in Consumer Preference	Yes	No	Not applicable	Total
Observation	63	28	9	100
O	E	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
68	33.33	34.67	1202.01	36.06
28	33.33	-5.33	28.41	0.85
9	33.33	-24.33	591.95	17.76
				54.67

alpha	0.1
df	2
X <sup>2</sup> alpha	4.605
X <sup>2</sup> calculated	54.67

$X_{cal} > X_{alpha} \dots$ Hence, Reject Null Hypothesis.	
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**Interpretation: -**

Since X<sup>2</sup> calculated is greater than X<sup>2</sup> alpha, hence null hypothesis is rejected. Therefore, there has been a significant shift in consumer preference between Uber and Ola among users in Kolkata over the past year.

**IV. RESEARCH OUTCOME AND FINDINGS**

The analysis of the Google Form survey, which gathered responses from 100 participants, reveals critical insights into consumer preferences and satisfaction levels regarding Uber and Ola services in Kolkata. The findings are synthesized below:

- Demographic Profile of Respondents:** The survey attracted a younger demographic, with 48% of respondents aged between 18-24 years. The gender distribution was balanced, and nearly half of the respondents identified as students, indicating a tech-savvy user base reliant on app-based taxi services.
- Service Usage and Preferences:** A notable preference was shown for Uber (39%) over Ola (30%), with 24% of respondents using both services equally. The primary factors influencing users' choice of service were pricing (67%) and availability of rides (64%), highlighting cost and convenience as key determinants.
- Changes in Service Preference:** Approximately 68% of participants reported a shift in their preference between Uber and Ola in the past year, suggesting a dynamic competitive landscape where consumer loyalty can be swayed by better service offerings and promotions.
- Satisfaction Levels:** Satisfaction ratings across various service aspects like pricing, availability, safety measures, and cleanliness showed room for improvement, with a general trend towards neutrality. Ola slightly edged out Uber in overall satisfaction ratings, indicating a slightly more favourable consumer perception.
- Impact of COVID-19:** The pandemic has significantly impacted usage patterns, with 34% of users stating their usage remained the same, 17% reported a decrease, and 47% an increase. Safety measures, particularly regular cleaning and sanitization of vehicles (60%), were deemed crucial by users, pointing towards heightened health and safety consciousness.

**4.1 Theoretical Implication**

The findings contribute to the understanding of consumer behaviour in the sharing economy, particularly in the context of app-based taxi services. They reinforce the importance of competitive pricing, service availability, and the crucial role of safety measures, especially during health crises like the COVID-19 pandemic.

**4.2 Managerial Implication**

For Uber and Ola, the study underscores the need for strategic focus on competitive pricing, enhancing service availability, and robust safety protocols to improve user satisfaction and loyalty. Given the significant percentage of respondents open to changing preferences, both companies must continually innovate and adapt to retain and grow their customer base in Kolkata.

**4.3 Limitations of the Study**

The study is limited by its reliance on convenience sampling and the self-reported nature of survey data, which may introduce bias. Additionally, the dynamic nature of the app-based taxi market and external factors like regulatory changes and economic shifts could impact the generalizability of the findings.

**4.4 Conclusions**

The competitive landscape between Uber and Ola in Kolkata is characterized by a young, cost-conscious user base with a strong preference for service availability and safety. While Uber currently enjoys a slight edge in consumer



satisfaction, the market remains fluid, with significant opportunities for both companies to enhance their service offerings.

#### 4.5 Scope for Future Research

Future studies could explore the long-term impacts of COVID-19 on consumer preferences, the role of technological innovations in shaping user expectations, and comparative analyses with other urban centres to identify unique market dynamics and opportunities.

#### Recommendations

1. **Enhance Safety Measures:** Both Uber and Ola should prioritize health and safety protocols, especially in light of the pandemic, to reassure users and encourage usage.
2. **Competitive Pricing Strategies:** Continuously evaluate and adjust pricing models to offer competitive rates without compromising service quality.
3. **Service Availability:** Invest in expanding service coverage and reducing wait times to meet consumer expectations for convenience and accessibility.
4. **User Engagement and Loyalty Programs:** Develop targeted promotions and loyalty programs to retain existing users and attract new ones, focusing on the preferences and feedback identified through the survey.
5. These recommendations aim to guide Uber and Ola in refining their strategies to better meet the needs and preferences of consumers in Kolkata, thereby fostering growth and sustainability in the competitive app-based taxi service market.

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