



The Impact of Ola and Uber on Public Transport Usage in Mumbai

Assistant Professor Ms. Pratiksha Sunil Karambe,

Assistant Professor Mr. Sabir Nasir Mujawar

Maratha Mandir's Babasaheb Gawde Institute of Management
Studies

Abstract – This research examines how ride-hailing services like Ola and Uber have influenced public transport usage patterns in Mumbai. As commuters prioritize convenience, safety, and comfort, ride-hailing apps have become strong alternatives to traditional transport. The study aims to identify key factors driving this shift, analyze demographic profiles, and assess the impact on the frequency of use and preferences for public transportation. Primary data collected through surveys provide insights into the behaviors of Mumbai's working population. The findings are anticipated to assist urban mobility planners and ride-hailing companies in better understanding commuter needs and policies implications.

Keywords - Ride-hailing, Ola, Uber, public transport, Mumbai, commuter behavior, urban mobility

I. INTRODUCTION

The Indian taxi market has been dominated by unorganized transport sector for decades but the organized private on-demand cab service market has been growing over the past several years with metro cities witnessing exponential growth with the penetration of organized sector. However, since the Radio cabs have entered the market, the use of technology like mobile apps has totally changed in India (Kumar, Singh, Akshita T. Ghate, & Wilson, 2016). On-demand rental cab services were introduced in 2004 but the actual revolution came in 2010 with OLA and in 2013, where the competition became dense after the launch of Uber (Rajesh & Chincholkar). As the taxi market became more competitive, consumers became more demanding forcing different rental cab companies to use different strategies to bring more customers as well as to retain old ones and to meet customer's expectations.

There are various factors that play an important role in customer satisfaction such as price and quality service followed by other factors, for example, safety and payment options. As per financial express report, introduction of app-based cab services has grabbed customer's attention as well as increased employment opportunities in the taxi market for drivers (Chen, 2014).

Most taxi apps in the taxi services market have similar services to offer such as concept of taxi aggregators, air conditioned taxi services, reasonable fares luring passengers of the metropolitan cities. Safety is mandatory but ease of availability and convenience while travelling also effect the customer's choice between the public and private transport. On-demand cab services are operated through mobile applications which makes it easier for customers to book a cab at their door or at any desired location. There is no inconvenience of changing transport for longer distances as well. Also, there are vast number of

options to choose from such a cab or pool or auto or bikes. Mumbai, India's financial capital, relies heavily on its public transportation system—suburban railways, BEST buses, and auto-rickshaws—for mass commuting. However, with the rapid adoption of smartphones and mobile applications, ride-hailing platforms like Ola and Uber have disrupted traditional transport ecosystems. These platforms offer convenience, real-time tracking, flexible payment options, and perceived safety, particularly for specific user segments. This study explores how these services are influencing the urban commute and what implications this shift might have for Mumbai's transport infrastructure.

The research mainly focuses on studying the impact of various variables on public transport and how it is affecting the public transportation market

II LITERATURE REVIEW

Ride-hailing platforms are reshaping urban transport dynamics in India. Studies by Pithale (2025), Khatoun et al. (n.d.), Kumar and Singhal (2020), and Shaheen et al. (2016) highlight how inefficiencies in Mumbai's public transport system and the economic structure of ride-hailing have jointly influenced commuter behavior.

Pithale (2025), in his paper "The Economics of Public Transport in Mumbai," critically analyzes Mumbai's transportation inefficiencies through the lens of transportation economics. He notes that despite operating one of the world's largest urban transport systems, Mumbai suffers from chronic underinvestment, overcrowding, and poor last-mile connectivity. The government's preference for capital-intensive projects over affordable, impactful changes like bus fleet improvement or fare integration has further diminished public transport's appeal. The paper emphasizes that these systemic failures have pushed many



commuters towards ride-hailing services, which offer better convenience and time efficiency.

The Boston Consulting Group (2019), in their report The Future of Mobility in India, suggest that ride-hailing and ridesharing can complement public transport and help reduce congestion if effectively integrated into the urban mobility ecosystem. They argue that ridesharing could provide alternatives to car ownership and, if supported by a robust metro system and improved last-mile connectivity, encourage greater public transport use in Mumbai. However, this potential is contingent on the affordability and quality of public transit.

Jain and Aggarwal (2020) further highlight, in Transportation Research Part A: Policy and Practice, that safety, comfort, and reliability are major reasons why Mumbai residents prefer Ola and Uber over public transport. Features such as advance booking, GPS tracking, and vehicle choice are significant advantages, especially given the challenges of overcrowded trains and unreliable buses. Ruchi et al (2017) studied various factors of the dynamics of Indian taxi markets, such as pricing, their revenue models, market share etc.

Utsav Pandya et al (2017) identified technology trends, safety, and price, ease of availability, comfort and payment options affecting the public taxi market. Sarit Prava Das et al (2017) identified convenience, quality services, transparency, and safety as the most important parameters for selecting pre-booked taxis. Similar research by Shukla et al (2017) on OLA and UBER suggested adopting highly innovative and customer-centric strategies to increase market share In another detailed study, Rajesh and Chincholkar (2020) conducted a comparative analysis of Ola and Uber users in Mumbai, targeting working professionals. The study surveyed 103 respondents to evaluate their demographic profiles, safety perceptions, and overall satisfaction with the services.

The findings revealed that gender plays a significant role in ride-hailing preferences: female commuters showed a preference for Uber, yet perceived Ola as safer—especially for night travel. In contrast, age and income had no significant influence on service selection. Pithale and Khatoon et al. emphasize commuter dissatisfaction with public transport and the struggles of gig workers, Rajesh and Chincholkar bring out the nuanced consumer preferences influencing the adoption of app-based cab services.

III. RESEARCH GAP

Most previous studies on ride-hailing services have focused on service quality, customer satisfaction, pricing, and driver perspectives. However, limited research has examined how these services affect the actual usage of public transport in Mumbai. This study addresses that gap by utilizing data to assess changes in commuter behavior,

frequency of public transport usage, and key factors influencing this shift.

Research Objective-

To identify key factors influencing the choice of Ola/Uber over public transport.

To analyze the impact of ride-hailing services on the frequency and usage patterns of Mumbai’s public transport system

To examine the demographic profile of commuters most likely to use ride-hailing services instead of public transport.

IV RESEARCH METHODOLOGY

Primary Data: Collected through online surveys and interviews with Mumbai residents

Sampling Method: Stratified random sampling to ensure representation across different income groups, occupations, and residential locations in Mumbai

Sample Size: 250 respondents from diverse income backgrounds to ensure statistically significant results.

Statistical Tool: Descriptive and Correlation test

Data Collection Tool: Structured questionnaire (online survey)

Secondary Data: Reports, Magazines

V RESULTS

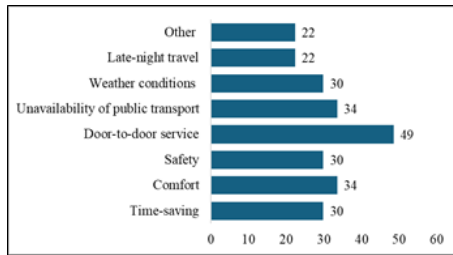
Objective 1: To identify key factors influencing the choice of Ola/Uber over public transport.

Table 1: Frequency of Key Factors Influencing Choice of Ola/Uber

Factor	Count
Time-saving	30
Comfort	34
Safety	30
Door-to-door service	49
Unavailability of public transport	34
Weather conditions	30
Late-night travel	22
Other	22

Data Analysis and Interpretation:

The chart illustrates the key reasons why commuters in Mumbai prefer using Ola and Uber over public transport.



The most frequently cited factor is Door-to-door service (49 respondents), emphasizing the convenience of direct pick-up and drop-off without the need for transfers or walking.

Comfort and Unavailability of public transport were each mentioned by 34 respondents, showing that both convenience and limitations in public transport infrastructure play a major role in influencing commuters' choices.

Time-saving, Safety, and Weather conditions were each cited by 30 respondents, highlighting that efficiency, personal safety, and protection from environmental factors—especially during Mumbai’s monsoon season—are significant considerations.

Late-night travel and Other reasons were mentioned by 22 respondents each, indicating additional motivations such as flexible travel hours, personal privacy, urgency, or the desire to avoid crowded spaces.

Overall, the data reflects that convenience, comfort, and contextual challenges (like poor weather or limited transport availability) are key drivers in the preference for ride-hailing services.

Key Findings:

The findings confirm that convenience, accessibility, and service quality gaps in public transport are primary drivers behind the shift toward ride-hailing services like Ola and Uber.

Objective 2: To analyze the impact of ride-hailing services on the frequency and usage patterns of Mumbai’s public transport system

Table: 2. Test Results- Correlation

	Age	Ola/Uber Usage	Reduced Public Transport Usage
Age	1		
Ola/Uber Usage	0.147463091	1	
Reduced Public Transport Usage	0.118065269	0.016838166	1

The correlation between Ola/Uber usage and reduced public transport usage is very weak and positive ($r = 0.017$). This indicates that although there is a slight trend, it is not strong enough to suggest a meaningful linear relationship between frequency of ride-hailing use and reduction in public transport use.

The correlation between age and Ola/Uber usage is also weak ($r = 0.147$), suggesting that older age groups may slightly use Ola/Uber more frequently, but again, the relationship is minimal.

Similarly, age and reduced public transport usage show a very weak positive correlation ($r = 0.118$), implying that age has little effect on whether respondents shifted away from public transport.

Hence, the correlation analysis shows very weak relationships among age, ride-hailing usage, and reduction in public transport usage. While the overall trend from other descriptive data indicates that Ola/Uber usage is associated with reduced public transport dependency, the linear correlation is not statistically strong.

This suggests that the shift in transport preference may be influenced by non-linear factors such as situational convenience (e.g., rain, safety, last-mile travel) or contextual needs, which are not captured in basic correlation.

Therefore, while correlation helps in understanding directional associations, it does not alone explain the full impact of ride-hailing services on public transport usage, which is better captured through descriptive trends and categorical analysis.

The correlation results show that there is no strong link between age, how often people use Ola/Uber, and their reduction in public transport use.

This means other reasons—like convenience, safety, weather, or travel time—might be more important than age or frequency when deciding to switch from public transport to Ola/Uber. So while we see a general shift happening, this analysis tells us that it's not driven by just age or how often someone books a cab.

Objective 3: To examine the demographic profile of commuters most likely to use ride-hailing services instead of public transport.



Table: 3. Cross Tabulation Analysis

Gender	No. of People use Ola/Uber Services	Reduction in the usage of Ola/Uber Transport
Female	124	124
Male	126	126
Grand Total	250	250
Occupation	No. of People use Ola/Uber Services	Reduction in the usage of Ola/Uber Transport
Business owner	73	73
Homemaker	41	41
Other (please specify)	37	37
Student	60	60
Working professional	39	39
Grand Total	250	250
Monthly Income	No. of People use Ola/Uber Services	Reduction in the usage of Ola/Uber Transport
20000-30000	15	15
30001-40000	31	31
400001-50000	46	46
50001-60000	13	13
60001-70000	40	40
70001-80000	40	40
80001-90000	35	35
90001-100000	30	30
Grand Total	250	250
Age	No. of People use Ola/Uber Services	Reduction in the usage of Ola/Uber Transport
21-30	46	46
31 - 40	3	3
31-40	47	47
41-50	50	50
Above 50	62	62
Below 20	42	42
Grand Total	250	250
Area of Residence	No. of People use Ola/Uber Services	Reduction in the usage of Ola/Uber Transport
Central Mumbai	54	54
Eastern Suburbs	60	60
Navi Mumbai / Thane	37	37
South Mumbai	43	43
Western Suburbs	56	56
Grand Total	250	250

The analysis of demographic variables provides meaningful insights into the commuter profiles that are most inclined to shift from public transport to ride-hailing services in Mumbai. Out of the 250 respondents, the distribution of Ola/Uber usage and the corresponding reduction in public transport usage was consistently observed across all demographic categories.

From a gender perspective, the data reveals a balanced distribution of users, with 126 male and 124 female respondents indicating a reduction in public transport usage post-adoption of ride-hailing services. This suggests that ride-hailing platforms are widely accepted across genders and fulfill commuting needs with similar efficiency for both male and female commuters.



Occupationally, business owners (n=73) and students (n=60) formed the largest segments of ride-hailing users, followed by homemakers (n=41), working professionals (n=39), and others (n=37). This distribution suggests that self-employed individuals and students—possibly due to flexible schedules or lack of fixed-route travel—are more inclined to choose ride-hailing over public transport. Homemakers and working professionals also displayed notable usage, signifying the broad utility and accessibility of these platforms across user categories.

Income-based analysis showed that the majority of users belonged to the mid-income brackets, particularly those earning between ₹60,001 and ₹80,000 per month. This trend indicates that ride-hailing is primarily adopted by individuals who seek convenience and reliability without the financial burden of private car ownership, but who can afford more than standard public transport fares.

The age-wise distribution indicated that commuters above the age of 50 (n=62), and those in the 41–50 age bracket (n=50), represented the largest share of ride-hailing users. This trend may be attributed to a preference for comfort and safety in commuting among older adults. Interestingly, younger respondents in the 21–30 (n=46) and below-20 (n=42) categories also reported substantial usage, suggesting cross-generational acceptance of app-based transport.

Area-wise analysis revealed that respondents from the Eastern suburbs (n=60), Western suburbs (n=56), and Central Mumbai (n=54) exhibited the highest usage of ride-hailing services. This geographic pattern indicates that commuters from peripheral or densely populated areas—often underserved by efficient public transport—are more likely to shift toward app-based services for better connectivity and comfort.

In summary, the findings highlight that ride-hailing services are broadly accepted across diverse demographic groups. However, higher adoption is observed among business owners, students, mid-income earners, and suburban residents. This suggests that socio-economic factors, lifestyle flexibility, and geographical accessibility play a significant role in influencing the commuter's decision to switch from public to private app-based transport solutions.

VI. CONCLUSION

The present study aimed to understand the growing shift from public transport to ride-hailing services like Ola and Uber among commuters in Mumbai. The findings clearly establish that ride-hailing platforms are emerging as preferred alternatives due to convenience, safety, time-saving, and door-to-door services.

Descriptive statistics revealed that factors such as unavailability of reliable public transport, comfort, and

weather-related concerns significantly influence the choice of app-based cab services. The correlation analysis, although statistically weak, suggested that the relationship between age, frequency of ride-hailing use, and reduced public transport usage is not strong in linear terms. However, supporting descriptive data across all demographic categories—gender, occupation, age group, income level, and area of residence—showed a uniform shift away from traditional public transport among users of Ola and Uber.

The demographic profile analysis revealed that mid-income groups, suburban residents, business owners, and students are most likely to adopt ride-hailing services as a regular mode of commute. Additionally, both older adults and younger generations displayed significant engagement with app-based services, reflecting their cross-generational appeal.

In conclusion, this research demonstrates that ride-hailing services have made a substantial impact on the commuting landscape of Mumbai. They are not merely supplementing but are actively replacing traditional public transport modes for many commuters. These findings call for strategic planning and possible integration of public transport with digital mobility solutions to ensure sustainable and inclusive urban mobility in Mumbai.

REFERENCES

1. Allamdas, R. H. (2017). Comparative Study of Ola and Uber in India.
2. Boston Consulting Group. (2019). The Future of Mobility in India.
3. Chen, M. K. (2014). Financial Express Report on App-based Cab Services.
4. Jain, A., & Aggarwal, R. (2020). Factors Influencing Ride-Hailing Adoption. Transportation Research Part A: Policy and Practice.
5. Khatoon, S., et al. (n.d.). [Referenced in literature review].
6. Kumar, A., & Singhal, A. (2020). Impact of Ride-Hailing Services on Urban Mobility.
7. Kumar, S., & Kumar, A. (2016). Consumer Behavior in Cab Service Selection.
8. Kumar, S., Singh, R., Ghate, A. T., & Wilson, S. (2016). Transformation of the Indian Taxi Market.
9. Malik, R. (2017). Driver Retention and Customer Satisfaction in Ride-Hailing.
10. Pandya, U. (2017). Technology Trends in Indian Taxi Market.
11. Pithale, S. (2025). The Economics of Public Transport in Mumbai.
12. Rajesh, R., & Chincholkar, S. (2020). Comparative Analysis of Ola and Uber Users in Mumbai.
13. Ruchi, S., et al. (2017). Dynamics of Indian Taxi Markets.
14. Sarit Prava Das, S., et al. (2017). Parameters for Selecting Pre-booked Taxis.



15. Shaheen, S., Cohen, A., & Zohdy, I. (2016). Ride-Hailing and Urban Mobility.
16. Shukla, S., Chandra, A., & Jain, H. (2017). Customer-Centric Strategies in Ride-Hailing.
17. Shinde, S. (2025). Psychological Drivers of Employee Turnover: The Mediating Role of Organizational Commitment in Modern Workplaces. *Kaav International Journal of Economics, Commerce & Business Management*, 12(1), 46-55.
18. Shinde, S. (2025). Workplace Gaslighting: A Hidden Driver of Emotional Exhaustion, Toxic Leadership and Talent Attrition. *Kaav International Journal of Economics , Commerce & Business Management*, 12(2), 15-23.
19. Shinde, S. (2025). Unmasking Organizational Alienation: A Multidimensional Analysis of its Impact on Employee Engagement in the Modern Workplace. *Kaav International Journal of Arts, Humanities & Social Sciences*, 12(1), 23-29.
20. Shinde , S. (2025). Role Ambiguity and Employee Well-Being: The Critical Need for Clear Job Descriptions. *Kaav International Journal of Arts, Humanities & Social Sciences*, 12(2), 6-13.
21. Shinde , S. (2025). Workplace Counselling and Employee Engagement: Building Resilient Organizations through Mental Health Support. *Kaav International Journal of Law, Finance & Industrial Relations*, 12(1), 44-53.
22. Mujawar, M. S. N. (2020). Impact Of Covid19 On Indian Retail Sector And Up Coming Opportunities In The New Beginning.
23. Shinde , S. (2025). Burnout and Compassion Fatigue in a Changing World: Psychological Insights and Organizational Strategies Post COVID-19. *National Journal of Arts, Commerce & Scientific Research Review*, 12(1), 1-8.
24. Mujawar, S. (2023). The Role Of Investment Companies In Promoting Financial Literacy Among Young Adults. Available at SSRN 5239249.
25. Shinde, S. (2025). The Role Of Organizational Citizenship Behaviour (Ocb) In Enhancing Organizational Effectiveness And Employee Engagement. *International Journal of Innovations & Scientific Research Review*, 3(1), 32-39.
26. Shinde, S. (2025). Embedding Diversity, Equity and Inclusion into Employee Retention Frameworks: A Strategic Hrm Perspective. *International Journal of Innovations & Scientific Research Review*, 3(2), 1-12.
27. Mujawar, Sabir. (2024). Analyzing the impact of g20 policies on the distribution of investment opportunities among salaried individuals of mumbai suburb region. *Journal of Political Economy*. 36. 31-37.
28. Shinde, S. (2025). Ethical Perspectives on Moonlighting and Its Influence on Employee Loyalty. *International Journal of Technological Advancements and Industrial Applications*, 3(1), 45-53. Shinde, S. (2025). Change Management as a Strategy: Aligning Organizational Transitions with Talent Retention, 3(2), 1-11.
29. Fonseca, N., & Mujawar, S. Road To Cashless Economy Through Unified Payment Interface.
30. Shinde, S. (2025). Predictive HR Analytics and Employee Attrition Modelling: A Strategic Approach to Workforce Retention in the Indian Context. *RESEARCH REVIEW International Journal of Multidisciplinary*, 10(6), 210–224.
31. Mujawar, M. S. N., & Shinde, S. Interdisciplinary Innovations in Marketing, Technology, and Sustainability: Exploring Consumer Behaviour, Service Quality, and Digital Transformation in India.
32. Shinde, S. (2025). Running on Empty: A Study of Time Pressure, Workload Misalignment, and Voluntary Turnover in Modern Organizations. *RESEARCH HUB International Multidisciplinary Research Journal*, 12(6), 37–47.
33. Mujawar, S. N. factor influencing the tax planning behaviour among the salaried individuals.
34. Shinde, S. (2025). Bridging the Skill Gap to Reduce Attrition: The Role of PMKVY in Enhancing Workforce Retention in Semi-Formal Sectors. *International Journal of Management and Development Studies*, 14(6), 29–38.
35. Mujawar, S. Driving Accessibility: The Influence of Transport Infrastructure on Consumer Preferences and Regional Markets.
36. Shinde, S. (2025). Career Agility and Organizational Resilience: Responding to the Job Hopping Generation. *TECHNO REVIEW Journal of Technology and Management*, 5(2), 17-26.
37. Mujawar, S. (2025). Connecting Choices: How Transportation Networks Shape Consumer Behavior and Regional Markets. *International Journal of Research Publication and Reviews*, 6, 8194-8196.
38. Shinde, S. (2025). Flexible Work Models and Hybrid Work Culture: A Strategic Paradigm for Talent Retention in the Evolving Workplace. *Revista Review Index Journal of Multidisciplinary*, 5(2), 19-29.
39. Mujawar, M. S. N., & Shinde, S. Challenges in Managing India's Public Distribution System in Rural Areas: A Critical Look at a Globally Recognized Food Security Model.
40. Shinde, S., & Mujawar, M. S. N. Strategic Synergies in Branding, Technology, and Leadership: A Multisectoral Study on Consumer Behavior, Digital Transformation, and Institutional Effectiveness in Contemporary India.
41. Shinde, S. (2025). Peer-to-Peer Recognition Systems and Their Impact on Employee Commitment: A Case-Based Exploration of Culture, Motivation, and Retention. *Research Review Journal of Social Science*, 5(1), 58- 68.