GREEN MOBILITY: CONSUMER ADOPTION OF RIDE SHARING AS A SUSTAINABLE TRANSPORT ALTERNATIVE IN SURAT

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Abstract:

The rapid growth of digital technology and changing urban mobility patterns has increased the adoption of ride-sharing services as an alternative mode of transportation. Green mobility offers a promising approach to addressing urban challenges such as traffic congestion, rising fuel costs, parking constraints, and environmental concerns. This study, titled "Green Mobility: Consumer Adoption of Ride Sharing as a Sustainable Transport Alternative," examines consumer attitudes and perceptions toward ride-sharing and its potential to reduce dependence on private car ownership. The study focuses on key factors including convenience, cost efficiency, safety and reliability, consumer attitude, and willingness to reduce private car use. A descriptive research design was adopted, and primary data were collected through a structured questionnaire from 224 respondents in Surat city. The collected data were analyzed using statistical techniques including t-test, ANOVA, and Chi-square test. The findings indicate strong consumer acceptance of ride-sharing services, with convenience, affordability, safety, and reliability playing an important role in shaping consumer attitudes and adoption intentions. The study highlights that ride-sharing can contribute to sustainable urban mobility by encouraging shared transportation and reducing dependence on private vehicles. The findings further suggest that improvements in safety measures, service quality, pricing transparency, driver reliability, and environmental awareness can strengthen consumer confidence and encourage greater adoption of ride-sharing. Thus, promoting ride-sharing as a component of green mobility can support more sustainable and efficient urban transportation while encouraging consumers to gradually shift from private vehicle ownership toward shared mobility solutions.

1. Introduction:

The 21st century has witnessed a significant transformation in urban mobility, driven by technological innovation, rapid urbanisation, changing consumer preferences, and growing environmental concerns. The emergence of **ride-sharing and shared mobility platforms** has changed the traditional concept of transportation by providing consumers with convenient, flexible, and technology-enabled alternatives to private vehicle ownership. Through mobile applications, GPS-based tracking, digital payments, and real-time ride information, consumers can access transportation services without necessarily owning a vehicle.

The concept of ride-sharing developed with the growth of internet-based communication and digital platforms and has evolved into a major component of modern urban transportation. In India, platforms such as Ola, Uber, Rapido, and BlaBlaCar have contributed to the expansion of shared mobility by offering services including car rides, auto-rickshaws, bike taxis, and

intercity ride-sharing. The increasing availability of these services has particularly influenced urban consumers who seek affordable and convenient transportation.

The growing importance of **green mobility** has further strengthened the relevance of ride-sharing. Increasing private vehicle ownership contributes to traffic congestion, fuel consumption, air pollution, and pressure on limited urban infrastructure. Ride-sharing provides an opportunity to utilise transportation resources more efficiently by enabling multiple users to share vehicles and, consequently, potentially reducing dependence on individual vehicle use. Thus, sustainable mobility requires not only technological development but also a change in consumer travel behaviour.

The present study, **"Green Mobility: Consumer Adoption of Ride-Sharing as a Sustainable Transport Alternative,"** focuses on understanding the factors that influence consumers' willingness to adopt ride-sharing services. The study considers **environmental awareness, perceived economic benefits, convenience, safety and reliability, trust, technological acceptance, and perceived environmental benefits** as important aspects influencing consumer adoption.

The proposed study examines whether consumers are willing to shift from private transportation to ride-sharing and identifies the factors that influence their adoption. It particularly focuses on the role of environmental awareness, perceived economic benefits, convenience, safety, trust, technological acceptance and perceived environmental benefits.

Surat provides a relevant context for this study because of its rapid urban growth and substantial commuting requirements associated with its textile, diamond, manufacturing, and service sectors. The availability of ride-sharing platforms provides consumers with alternatives to private transportation. However, concerns relating to safety, surge pricing, driver behaviour, service reliability, cancellations, regulatory conditions, and trust may influence adoption decisions.

Therefore, the study seeks to examine consumer attitudes towards ride-sharing and its potential contribution to **green and sustainable urban mobility**. Understanding these factors can help service providers, policymakers, and urban planners develop strategies that encourage shared transportation, reduce dependence on private vehicles, and promote environmentally responsible mobility choices.

2. REVIEW OF LITERATURE:

The purpose of a Literature Review is to examine existing research, theories, and empirical findings related to the topic in order to build a strong foundation for the present study. It helps identify what is already known, the gaps that remain, and how the current research contributes

to the wider academic and practical context. The literature also provides important comparisons across countries, demographic groups, and service conditions, highlighting how digital mobility systems evolve differently in each context.

Perceived Convenience & Economic Benefits:

(Wardhana & Pradana, 2023) The study examines the influence of service quality, perceived value, and brand reputation on brand choice among ride-hailing users in eight Southeast Asian countries. Data from 1,536 GrabCar users were analysed using path analysis and Structural Equation Modelling (SEM). Findings indicate that all three factors significantly influence brand choice, brand trust, and customer satisfaction, with service quality emerging as the strongest predictor. Brand trust and customer satisfaction further strengthen users' preference for a ride-hailing brand. The study concludes that enhancing service quality and brand reputation is essential for building trust, satisfaction, and stronger brand choice.

(Ali, et al., 2022) The study examines commuter satisfaction and usage preferences toward ride-hailing services in Lahore, Pakistan. Data from 531 respondents were analysed using Customer Satisfaction Index (CSI), Exploratory Factor Analysis (EFA), and Structural Equation Modelling (SEM). Five key service-quality dimensions were identified: convenience, comfort, privacy and security, fare system, and social protection and safety. Findings show high satisfaction with driver skills, vehicle condition, and comfort, but lower satisfaction with fare fairness, discounts, and lost-item protection. The study concludes that privacy, security, comfort, and safety significantly influence current and future ride-hailing preferences, highlighting the need for stronger regulation and driver monitoring.

Kumar et al. (2024) investigated the adoption of ride-hailing services in the Indian context and examined the role of perceived value in shaping consumer attitudes and behavioural intentions. Based on data from **390 Indian ride-hailing users**, the study found that utilitarian value plays an important role in developing favourable consumer attitudes toward ride-hailing. The study highlights that ride-hailing provides consumers with economic and functional benefits while eliminating the need to own a personal vehicle. Consumer frugality was also found to influence the relationship between perceived value and attitude. The findings demonstrate that economic considerations are important in understanding the adoption of ride-sharing services among Indian consumers

Naumov and Keith (2023) examined the economic and environmental benefits of ride-hailing and pooled transportation. Their study highlights that **pooled rides are generally cheaper than individual ride-hailing services**, making them particularly attractive to price-sensitive consumers. Using a discrete choice experiment and multinomial logit model, the researchers

analysed consumer preferences for different ride-hailing attributes. The findings indicate that cost savings are an important motivation for choosing pooled rides, particularly among consumers seeking affordable transportation. The study suggests that appropriate pricing strategies can increase the attractiveness of shared mobility while simultaneously supporting sustainability objectives.

Trust, Safety & Perceived risk in ride sharing services:

(Chaudhry, et al., 2018) The study examines safety concerns associated with the growing use of ride-sharing services despite their convenience and accessibility. It identifies weak regulations, inadequate driver screening, poor feedback systems, and limited vehicle identification as major safety gaps. Based on a review of previous studies and reported incidents, the authors highlight passengers' vulnerability to harassment, accidents, and other risks. The study recommends measures such as dash-cams, emergency alerts, passenger insurance, live ride monitoring, and improved in-app reporting. It concludes that strengthening safety mechanisms is essential for the long-term success and acceptance of ride-sharing services.

(Alamoudi, et al., 2023) The study examines the development of institutional trust among female passengers toward ride-sharing platforms in Saudi Arabia. Based on 413 valid responses, EFA, CFA, and PLS-SEM were used to assess platform institutional structures and their impact on trust and usage behaviour. Findings show that feedback systems, payment security, provider certification, and emergency rescue mechanisms significantly strengthen institutional trust. Among these, emergency rescue features emerged as the strongest determinant of trust. The study further finds that higher trust enhances users' well-being, recommendation intention, and continued use of ride-sharing services.

(Meng, et al., 2020) The study examines how time and location influence users' trust in ride-sharing platforms in China. Using 43,598 ride-sharing orders from Beijing, the study analyses trust variations through statistical and machine-learning techniques. Findings reveal higher trust in economically developing districts, while trust decreases significantly during evening hours (7–11 pm). Early-morning periods show comparatively higher trust levels. Among the models tested, AdaBoost provided the best predictive performance, highlighting time and location as important determinants of platform trust.

Environmental Sustainability & Green Awareness:

(Culiberg, et al., 2022) The study examines how moral identity, environmental identity, and environmental concern influence consumers' intention to reduce car use and adopt ride-sharing. Data from 511 UK consumers were analysed using Structural Equation Modelling

(SEM), including mediation and moderation analysis. Findings show that moral identity and environmental concern increase the perceived importance of reducing car use, while environmental and moral identity also strengthen behavioural intention. The perceived importance of reducing car use positively influences intention, which strongly predicts ride-sharing adoption. Car ownership, however, negatively affects both intentions to reduce car use and adopt ride-sharing.

(Krawiec, 2024) The study examines how sharing attitudes and reduced dependence on private vehicle ownership influence carpooling adoption as a sustainable mobility option. Using survey data from 101 respondents, the study applied Mann–Whitney, Kruskal–Wallis, and Spearman correlation tests. Findings indicate that residence significantly influences sharing and ownership-relief attitudes, while gender and age have limited impact. Perceived ease, usefulness, cost savings, and environmental benefits encourage greater willingness to carpool. The study concludes that positive attitudes toward sustainability and natural resource conservation strengthen acceptance of carpooling.

(Flores & & Jansson, 2021) The study examines how consumer innovativeness and green perceptions influence the adoption of shared e-bikes and e-scooters. Survey data from users and non-users in Copenhagen and Stockholm show that users generally perceive themselves as more innovative and view shared mobility as greener. Consumer innovativeness and green perceptions significantly influence e-bike adoption, while only innovativeness affects e-scooter adoption. Environmental knowledge and attitudes are positively associated with green perceptions. The study concludes that perceived environmental benefits can encourage shared mobility adoption, but their influence varies by vehicle type.

Consumer Attitude & Adoption Intention:

(Bhaduri, et al., 2024) The study investigates heterogeneity in urban travellers' attitudes and preferences toward ride-hailing services in Kolkata. Based on 839 respondents, EFA, LCCA, and MCDM techniques were used to identify user segments and assess adoption factors. Three groups were identified: ride-hailing-ready, active-mobility-oriented, and private-vehicle-oriented multimodal users. Flexibility, travel time, and reliability emerged as major motivators, while cost and waiting time were key barriers. The study highlights that lifestyle attitudes and service attributes play a greater role in ride-hailing adoption than demographic characteristics alone.

(Paul && Mishra, 2019) The study examines consumer readiness toward shared mobility in major Indian metropolitan cities amid rising congestion and transport costs. Data were collected through an online survey of 257 respondents from Mumbai, Delhi, Bengaluru, Chennai, and Kolkata. Findings indicate strong willingness to adopt shared mobility, mainly due to lower cost, convenience, and environmental benefits. Poor service quality and inconsistent customer satisfaction were identified as key barriers. The study concludes that

shared mobility has strong potential as an economical, practical, and eco-friendly alternative to private vehicles.

(Anwar & & Halder, 2025) The study examines the growing adoption of app-based ride-sharing in Bangladesh, particularly in Dhaka and Chattogram, driven by urban congestion, high private transport costs, and increasing digital adoption. It investigates consumers' preference for ride-sharing over public transport and the factors influencing this preference. Using a qualitative approach, the study conducted interviews with 20 regular ride-sharing users selected through convenience sampling. Findings indicate that comfort, safety, convenience, and income opportunities are key factors influencing ride-sharing adoption. Drawing on Hybridization, Popular Culture, and Consumerism theories, the study highlights how ride-sharing has become integrated into Bangladesh's evolving urban mobility culture. The study concludes that continued growth requires improved traffic management and greater promotion of shared rides.

2.1 RESEARCH GAP:

Existing studies have examined sustainable mobility, public transportation, ride-hailing and shared mobility separately. A stronger research contribution would be to integrate **consumer psychology, environmental awareness and technological innovation** into one framework explaining the transition from private vehicle use to shared green mobility. This provides an opportunity to develop a **"Consumer–Technology–Environment" framework** for sustainable urban transportation.

3. RESEARCH METHODOLOGY:

Problem Statement: Increasing private vehicle use in Surat has led to traffic congestion, fuel consumption, and environmental pollution. Ride-sharing can provide a sustainable transport alternative, but its adoption among consumers remains limited. Therefore, this study aims to identify the key factors influencing consumers' intention to adopt ride-sharing as a green mobility option in Surat.

3.1 Objectives of the study:

- To Study the usage and preference of ride sharing services among people of Surat city
- To identify and analyze the key factors influencing consumers' adoption of ride-sharing services.
- To study the effect of consumers' environmental consciousness and their intention to use ride-sharing services as a means of promoting green mobility and reducing the environmental impact of transportation.

3.2 Research design:

In the present study, descriptive single cross sectional research design has been adopted to ensure that the research objectives are addressed effectively and that valid conclusions can be drawn from the collected data.

3.3 Sampling design:

Sampling design refers to the procedure used to select a subset of individuals from the target population for the purpose of data collection. The present study has adopted a non-probabilistic sampling technique, as the selection of respondents was based on accessibility and willingness to participate in the survey.

3.4 Target Population:

The target population of the study has consisted of individuals who are aware of or have experience with ride-sharing services and are potential users of such services in urban areas. The population has included working professionals, students, and other commuters who regularly travel within the city and have the option of using either private cars or ride-sharing services.

3.5 Sampling Elements:

The sampling elements have comprised individual consumers from the target population who possess basic awareness of ride-sharing services and have the ability to evaluate them as a transportation alternative. Each respondent selected for the study represented a single sampling element drawn from the target population.

3.6 Sampling Technique

The study has employed Convenience Sampling, which is a non-probability sampling technique. Convenience sampling was considered suitable due to time constraints, limited resources, and the exploratory nature of the study.

3.7 Sample Size

The sample size for the present study consists of 224 respondents. The respondents were selected from users of ride-sharing services in the selected study area.

3.8 Hypothesis for the study:

- H01-There is no significant difference between male and female respondents regarding safety perception and perceived risk while using ride-sharing services
- H02-There is no significant difference among different age groups regarding attitude towards private car ownership
- H03-There is no significant difference in the mean score of Willingness to Reduce Private Car Use among respondents belonging to different age groups.
- H04-There is no significant association between distance preference for using ride-sharing services and social & environmental influence

3.9 Data Representation

has been done by tables and Microsoft excel has been used for data analysis calculating frequency, percentage and performing tests.

4. DATA ANALYSIS AND INTERPRETATION:

4.1 Demographic profile of the respondents:

Particular	Options	Frequency	Percentage
Gender	**Male**	108	48.21 %
	Female	116	51.79 %
Age	**18-21**	77	34.38
	22-25	48	21.43
	26-30	43	19.20
	31-45	28	12.5
	Above 45	28	12.5
Do you own a private car?	**Yes**	110	49.11
	No	114	50.89

The above figures of demographic profile of respondents indicate that around 52% of respondents were male and 48 % were female who have participated in this survey. Also from the various age groups majority were from 18-21 years and for owning a private car the data showed that almost 50 % each for possession of car has been observed in Surat city.

4.2 Usage and preference for ride sharing services:

Particular	Options	Frequency	Percentage
Have you ever used any ride-sharing / ride-hailing service	Yes	214	95.54
	No	10	4.46
For what distance do you prefer using ride-sharing services?	Less than 5 km	51	23.83
	5-10 km	62	28.97
	10-15 km	53	24.77
	More than 15 km	48	22.43
Which ride-sharing service(s) do you use most frequently?	Uber	181	56.39

	Ola	93	28.97
	Rapido	42	13.08
	InDrive	4	1.25
	Other	1	0.31
For what purpose do you mainly use ride-sharing services?	Daily commute (college/work)	58	27.10
	Lesiure / Social Outings	54	25.23
	Emergency Travel	45	21.03
	Occasional / irregular travel	57	26.64
How frequently do you use ride-sharing services?	Daily	29	13.55
	2-3 times a week	57	26.64
	Once a week	47	21.96
	Occasionally	81	37.85

Objective:1: To Study the usage and preference of ride sharing services among people of Surat city. (Descriptive statistics)

- More than 95% of respondents have used ride-sharing services, highlighting widespread awareness and acceptance of these platforms.
- Ride-sharing services are primarily used for short to medium distances (5–10 km) 62% , suggesting suitability for urban commuting.
- Uber emerged as the most frequently used ride-sharing platform 56.39%, followed by Ola and Rapido, reflecting strong brand preference.
- Respondents mainly use ride-sharing services for daily commute 58% , occasional travel, and leisure purposes, rather than only for emergencies.
- Most users prefer ride-sharing services on an occasional or weekly basis, 26.64% indicating selective usage instead of complete dependency.
- Consumers perceive ride-sharing services as convenient and time-saving, especially for urban travel.

Objective:2 To identify and analyze the key factors influencing consumers' adoption of ride-sharing services.

Table 11: Service Performance

Q. No.	Service Performance	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Timely Ride Availability	2	7	75	73	57	3.84
2	Driver Professionalism	3	11	76	72	52	3.74
3	Vehicle Cleanliness and Comfort	3	7	58	81	65	3.92
4	Service Accuracy (App Vs Actual)	3	10	78	54	69	3.82
5	Overall Service Satisfaction	3	7	62	76	66	3.91

Table 12: Integrity & Fairness

Q. No.	Integrity & Fairness	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Fair & Transparent Pricing	6	8	79	58	63	3.77
2	No Unfair Price Discrimination	4	12	88	56	54	3.67
3	Ethical Platform Practices	3	9	69	58	75	3.90
4	Driver Honesty & Responsibility	2	10	69	73	60	3.84
5	Trust in Complaint Handling	2	12	61	78	61	3.86

Table 13: Perceived Usefulness

Q. No.	Perceived Usefulness	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Travel Time Saving	4	10	78	62	60	3.77
2	Daily Travel Convenience	3	13	71	60	67	3.82
3	Ease of Ride Booking	4	12	63	65	70	3.86
4	Usefulness for Regular Travel	3	9	72	71	59	3.81
5	Improved Travel Experience	4	7	69	77	57	3.82

Table 14: Trust in Platform

Q. No.	Trust in Platform	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Platform Reliability	5	7	69	74	59	3.82
2	Platform Transparency	2	12	75	78	47	3.73
3	Platform Acts in User's Interest	3	7	78	60	66	3.84
4	Confidence in Platform Usage	3	8	73	59	71	3.87

Table 16: Perceived Safety

Q. No.	Perceived Safety	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Feeling Safe During Rides	4	7	61	70	72	3.93
2	Sense of Security While Traveling	2	4	67	63	78	3.93
3	Adequate Safety Measures	2	10	78	69	55	3.77
4	Protection While Using Services	2	5	80	65	62	3.84

The above tables indicate the results of various influencing consumers' adoption of ride-sharing services.

- Around 60%–65% of respondents agreed or strongly agreed that ride-sharing platforms are easy to use and drivers behave professionally, indicating an overall positive consumer attitude towards ride-sharing services.
- The study also indicated the mean of 3.90 for ethical platform practices and 3.86 for ease of ride booking as an important factor while selecting ride sharing services to increase adoption of these facilities.
- A majority of respondents (above 65%) agreed that ride-sharing services save time and are convenient, showing that perceived convenience positively influences consumer attitude.
- Mean of 3.92 for vehicle cleanliness and comfort shows that consumers prefer more of this attribute while preferring ride sharing services.
- Mean of 3.93 for safety and security while travelling indicates that respondents expressed agreement regarding safety and reliability, showing that safety perception significantly affects consumer confidence and attitude.

Objective:3 To study the effect of consumers' environmental consciousness and their intention to use ride-sharing services as a means of promoting green mobility and reducing the environmental impact of transportation.

Table 18: Social Influence

Q. No.	Social Influence	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Social Support for Ride-Sharing	3	9	72	67	63	3.83
2	Peer Encouragement to Reduce Car Use	12	8	76	68	50	3.64
3	Social Acceptance of Ride-Sharing	3	10	68	66	67	3.86

Table 19: Pro-Environmental Travel Attitude

Q. No.	Pro-Environmental Travel Attitude	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Environmental Benefits of Ride-Sharing	4	8	71	61	70	3.86
2	Contribution to Sustainable Mobility	2	12	68	69	63	3.84
3	Preference for Eco-Friendly Transport	4	9	65	59	77	3.92

Table 20: Attitude Towards Private Car Ownership

Q. No.	Attitude Towards Private Car Ownership	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Necessity of Private Car Ownership	4	11	70	60	69	3.84
2	Social Benefits of Reduced Car Use	2	13	61	84	54	3.82
3	Ride-Sharing as Car Ownership Alternative	4	9	59	73	69	3.91

Q. No.	Willingness To Reduce Private Car Use	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	Willingness to Reduce Car Usage	7	11	69	57	70	3.80
2	Preference for Ride-Sharing over Car convenience	4	12	90	60	48	3.64
3	Openness to Changing Travel Habits	5	6	75	69	59	3.80

Table 21: Willingness To Reduce Private Car Use

The findings indicate a generally positive social, environmental, and behavioural orientation toward ride-sharing among respondents. Social acceptance recorded the highest mean score of 3.86, followed by social support (3.83), while peer encouragement to reduce private car use was comparatively lower (3.64). Pro-environmental attitudes were strong, with preference for eco-friendly transport receiving the highest mean score of 3.92. Respondents also recognized the environmental benefits and contribution of ride-sharing to sustainable mobility. Ride-sharing as an alternative to private car ownership recorded a high mean score of 3.91, indicating favourable attitudes toward shared mobility. Willingness to reduce private car use and openness to changing travel habits both recorded mean scores of 3.80. However, the lower score for preferring ride-sharing over car convenience (3.64) suggests that convenience remains an important consideration. Overall, the results demonstrate positive acceptance of ride-sharing, although greater emphasis on convenience and peer influence may further encourage its adoption.

Hypothesis testing:

- H-01 There is no significant difference between male and female respondents regarding safety perception and perceived risk while using ride-sharing services
- Level of Significance: 5%
- Test Used: Independent Sample t-Test (Two-tailed)

The calculated t-value was 3.43 with 212 degrees of freedom. The two-tailed p-value obtained was 0.0007, which is less than the significance level of 0.05. Since the p-value is less than 0.05, the null hypothesis is rejected.

INFERENCE

There is a statistically significant difference in Safety Perception and Perceived Risk between male and female respondents. Gender significantly influences how respondents perceive safety and risk, with male respondents showing more favorable perceptions compared to female respondents.

- H-02 There is no significant difference among different age groups regarding attitude towards private car ownership

One way Anova has been used for testing this hypothesis among Age groups and Willingness to reduce usage of vehicles

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	13.69592672	4	3.423981679	7.176479468	1.9646E-05	2.414848267
Within Groups	99.71632666	209	0.477111611			
Total	113.4122534	213				

The ANOVA results indicate that the calculated F-value is 7.18 with 4 and 209 degrees of freedom. The corresponding p-value is 0.00002, which is less than the significance level of 0.05. **Since the p-value is less than 0.05, the null hypothesis is rejected.**

INFERENCE / CONCLUSION

There is a statistically significant difference in Attitude towards Private Car Ownership among respondents belonging to different age groups. This suggests that age significantly influences individuals' attitudes towards owning a private car.

- H-03 There is no significant difference in the mean score of Willingness to Reduce Private Car Use among respondents belonging to different age groups.

One way Anova has been used for testing this hypothesis among Age groups and Willingness to reduce usage of vehicles

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	21.13943508	4	5.28485877	10.94091915	4.49245E-08	2.414848267
Within Groups	100.9545421	209	0.483036086			
Total	122.0939772	213				

The ANOVA results indicate that the calculated F-value is 10.94 with 4 and 209 degrees of freedom. The corresponding p-value is 0.00000004, which is far less than the significance level of 0.05. **Since the p-value is less than 0.05, the null hypothesis is rejected.**

INFERENCE / CONCLUSION

There is a statistically significant difference in Willingness to Reduce Private Car Use among respondents belonging to different age groups. This indicates that age plays a significant role in influencing individuals' willingness to reduce the use of private cars.

- H04- There is no significant association between distance preference for using ride-sharing services and social & environmental influence

  Chi square test has been performed for testing this hypothesis

Chi-Square	11.21986866
dof	12
Pvalue	0.510175875

The observed and expected frequency tables were constructed, and the Chi-Square statistic was calculated. The computed Chi-Square value is 11.22 with 12 degrees of freedom. The corresponding p-value is 0.51, which is greater than the significance level of 0.05. **Since the p-value exceeds 0.05**, the null hypothesis is not rejected.

4.3 Major findings:

Findings related to respondent profile: The findings indicate that the respondents comprised a relatively balanced representation of gender, with a slightly higher participation of female respondents. A substantial proportion of the respondents belonged to the 18–30 age group, indicating greater adoption of ride-sharing services among younger consumers. More than 95% of the respondents reported having used ride-sharing services, reflecting a high level of awareness and acceptance of app-based mobility platforms. The findings further reveal that ride-sharing services are predominantly used for short to medium distances, particularly 5–10 km, highlighting their relevance for urban transportation and daily mobility. Among the various platforms, Uber emerged as the most frequently used ride-sharing service, followed by Ola and Rapido, indicating a relatively strong preference for established platforms. In terms of usage purpose, respondents primarily used ride-sharing services for daily commuting, occasional travel, and leisure activities, demonstrating that these services have become an integral part of routine urban mobility rather than being used solely for emergency transportation.

Findings related to the major variables: The findings reveal that consumers perceive ride-sharing services as convenient and time-saving, particularly for urban travel. Cost efficiency also emerged as an important factor contributing to a positive consumer attitude towards ride-sharing services. Safety and reliability perceptions significantly influence users' confidence and their willingness to use these services regularly. Despite the growing acceptance of ride-sharing, private car ownership continues to hold importance among consumers due to factors such as comfort, control, and personal preference. Overall, the findings indicate that a favourable consumer attitude is an important determinant of the intention to use ride-sharing services as an alternative to private car ownership.

The findings suggest that consumer adoption of ride-sharing services is strongly influenced by convenience, time-saving benefits, cost efficiency, safety, and reliability. These factors enhance consumers' confidence and encourage regular usage of ride-sharing platforms. Despite the continued preference for private cars, a favourable consumer attitude increases the likelihood of adopting ride-sharing as an alternative mode of urban transportation.

5. CONCLUSION:

This study demonstrates that ride-sharing services are emerging as a vital driver of urban green mobility by offering a convenient, affordable, and tech-driven alternative to private car ownership. Strong consumer acceptance is primarily powered by perceived cost efficiency, operational convenience, and enhanced safety perceptions. These positive consumer attitudes directly strengthen the intention to adopt ride-sharing as a viable substitute for personal vehicles, aiding the broader transition toward eco-friendly urban transit. While not yet viewed as a total replacement for private cars, shared mobility is increasingly embraced for short-distance city trips, effectively curbing traffic congestion and vehicular emissions. Ultimately, cultivating positive user attitudes toward ride-sharing accelerates the adoption of sustainable transportation practices, reinforcing shared mobility as a cornerstone of modern green urban planning.

Ride-sharing should not be viewed merely as a convenient transportation service; it can be positioned as an important component of the transition towards sustainable and environmentally responsible urban mobility. However, technological availability alone may not be sufficient to change consumer behaviour. Adoption depends on consumers perceiving shared mobility as safe, convenient, affordable, trustworthy and environmentally beneficial.

The future of sustainable transportation therefore lies at the intersection of consumer awareness, environmental innovation and smart mobility technology. Encouraging consumers

to move from individual ownership towards shared and low-carbon mobility can contribute to more efficient, inclusive and sustainable cities.

6. SUGGESTIONS:

- Simplify app interfaces and booking processes to improve user experience and adoption.
- Maintain transparent and competitive pricing, especially for short-distance urban trips.
- Introduce women-friendly and secure ride-sharing options to enhance safety and confidence.
- Develop corporate ride-sharing programmes for employees to encourage regular usage.
- Introduce student and campus-based ride-sharing programmes for affordable mobility.
- Strengthen safety features through live ride tracking and instant emergency assistance.
- Develop age-specific promotional strategies to encourage adoption across different consumer groups.
- Promote the environmental and congestion-reduction benefits of ride-sharing through awareness campaigns.
- Implement loyalty programmes and continuously improve service quality to strengthen long-term customer retention.

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