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by Manik Manik

Submission date: 25-May-2026 08:54PM (UTC+0530)
Submission ID: 2969219714
File name: MRP_Aggressive_driving_RR_1.doc (987.5K)
Word count: 8179
Character count: 51314

Project Dissertation Report on

Aggressive Driving and Road Rage: A Study among Delhiites

Submitted By

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24/DMBA/132

Under the Guidance of

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CERTIFICATE

This is to certify that the dissertation titled "Aggressive Driving and Road Rage: A Study among Delhiites" is a Bonafide and original work carried out by Manik Pulyani, a student of the Master of Business Administration (MBA) program, under my guidance and supervision.

This research project is submitted in partial fulfilment of the requirements for the award of the degree of Master of Business Administration at Delhi School of Management, Delhi Technological University.

To the best of my knowledge and belief, the work embodied in this dissertation has not been submitted earlier, either in part or in full, for the award of any other degree or diploma to this or any other university or institution.

The student has satisfactorily completed the project work as prescribed by the university guidelines.

Project Guide
Dr. Arushi Jain

DECLARATION

I hereby declare that the research project titled "Aggressive Driving and Road Rage: A Study among Delhiites" is an original work carried out by me as part of my MBA program.

The study has been conducted for academic purposes, and all data collected has been used solely for research and educational purposes. The information presented in this report is true to the best of my knowledge and belief.

I further declare that this project has not been submitted previously for the award of any degree or diploma in any institution.

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ACKNOWLEDGEMENT

I would like to express my sincere gratitude and deep appreciation to my project guide for their invaluable guidance, continuous support, and constructive suggestions throughout the course of this research work. Their expertise and encouragement played a significant role in the successful completion of this study.

I am also thankful to the faculty members of the MBA department for providing the necessary academic support and resources required for this project. Their knowledge and insights greatly contributed to enhancing my understanding of the subject.

I would like to extend my gratitude to all the respondents who participated in the survey and provided their valuable time and inputs. Their cooperation was essential for the completion of this research.

Finally, I would like to express my heartfelt thanks to my family and friends for their constant encouragement, motivation, and support throughout the duration of this project.

EXECUTIVE SUMMARY

This research study focused on understanding the issue of aggressive driving and road rage among Delhiites. In recent years, rapid urbanization, increasing traffic congestion, time pressure, and stressful lifestyles have contributed to a rise in aggressive driving behavior on Delhi roads. Road rage has become a serious concern as it not only affects the safety of drivers and pedestrians but also creates psychological stress and increases the risk of road accidents.

The main objective of the study was to analyze the behavior, attitudes, and experiences of people related to aggressive driving and road rage. It also aimed to identify the major causes behind such behavior and examine its impact on individuals and road safety.

The study was based on both primary and secondary data. Primary data was collected through a structured questionnaire using Google Forms, with responses from 54 participants including students and working professionals residing in Delhi. Secondary data was collected from research papers, articles, traffic reports, and online sources to support the findings of the study.

The results of the study indicated that aggressive driving and road rage are common experiences among Delhiites. A large number of respondents stated that they frequently witnessed behaviors such as unnecessary honking, over speeding, dangerous overtaking, verbal abuse, and violation of traffic rules on the roads.

The study also found that traffic congestion, delays, stress, lack of patience, and irresponsible driving habits were the major factors contributing to aggressive driving behavior. Many respondents believed that poor traffic management and lack of strict law enforcement further encouraged such behavior.

Another important finding was related to emotional control and public behavior. Many participants admitted that frustration and anger during traffic situations often affected their driving behavior. At the same time, respondents felt that aggressive driving negatively impacted mental peace, public safety, and the overall driving environment in the city.

Despite these challenges, most respondents showed awareness regarding road safety and believed that strict traffic rules, awareness campaigns, better civic sense, and improved public discipline could help reduce incidents of road rage and aggressive driving.

The study concluded that aggressive driving and road rage are significant social and traffic-related issues in Delhi. While people are aware of the negative consequences, actual behavior is often influenced by stress, traffic conditions, and lack of emotional control. It was recommended that authorities focus on stricter law enforcement, better traffic management, and public awareness programs to promote safer and more responsible driving behavior.

Overall, the study highlighted the growing concern of aggressive driving and road rage among Delhiites and emphasized the need for collective efforts from individuals, society, and authorities to improve road safety and driving culture in the city.

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1. INTRODUCTION

1.1 Background

Sustainability gradually became one of the most discussed global concerns because environmental and social problems started affecting everyday life more visibly than before. Issues such as climate change, pollution, excessive plastic usage, deforestation, industrial waste, depletion of natural resources, and rising carbon emissions increased awareness regarding responsible consumption and ethical business practices across different countries. Consumers slowly became more conscious about how products were manufactured, packaged, transported, and promoted. Earlier, most purchasing decisions were mainly influenced by affordability, convenience, availability, and product quality. Environmental concerns rarely influenced regular consumer behaviour in practical market situations. However, changing environmental conditions and increasing public discussions regarding sustainability gradually started affecting consumer expectations as well. Businesses also realized that consumers were beginning to evaluate brands not only on the basis of products and pricing but also according to environmental responsibility and ethical practices followed by organizations. Sustainability therefore slowly evolved from being only a social concern into an important business and marketing strategy influencing customer relationships, brand reputation, and long-term organizational image. Traditionally, driving was mainly considered a routine activity focused on reaching destinations safely and conveniently. However, over time, changing lifestyles, work pressure, time constraints, and stressful urban environments have influenced the behaviour of drivers. Many individuals now experience frustration, impatience, and anger while driving, which often results in aggressive behaviour on roads. Such behaviour includes unnecessary honking, speeding, dangerous overtaking, tailgating, verbal abuse, and violation of traffic rules.

Aggressive driving refers to reckless or unsafe driving behaviour that increases the risk of accidents and creates discomfort for other road users. Road rage, on the other hand, refers to extreme emotional reactions such as anger, aggression, or violent behaviour triggered during driving situations. These behaviours negatively affect not only the individuals involved but also pedestrians, passengers, and the overall traffic environment. The increasing number of vehicles and inadequate road infrastructure in

Delhi have further intensified traffic-related stress. Long traffic jams, delays, lack of parking facilities, poor road conditions, and irresponsible driving habits often create frustration among commuters. As a result, drivers tend to lose patience and react aggressively in challenging traffic situations caused by aggressive driving. These incidents increased public awareness regarding the seriousness of the issue and its impact on road safety. Despite awareness about traffic rules and road safety, aggressive driving behaviour continued to increase. Many drivers understood the risks associated with road rage, yet they often engaged in such behaviour due to stress, emotional imbalance, peer influence, or lack of patience. This gap between awareness and actual behaviour highlighted the complexity of human behaviour in traffic situations.

In addition, psychological and social factors became important in understanding road rage. Factors such as stress, anger, personality traits, competitive behaviour, and emotional instability influenced the reactions of individuals while driving. Young drivers, especially in urban areas, were often found to be more vulnerable to aggressive driving behaviour due to lifestyle pressures and impulsive decision-making. Another major concern was the lack of strict enforcement of traffic rules and civic discipline. Many drivers ignored traffic signals, lane discipline, speed limits, and road etiquette without fear of penalties. This irresponsible behaviour created unsafe road conditions and encouraged aggressive interactions among road users.

In the Indian context, Delhi became one of the most affected cities due to its high population density and traffic congestion. Daily commuters frequently experienced stressful driving conditions, increasing the likelihood of road rage incidents. While awareness regarding road safety increased through government campaigns and media initiatives, behavioural change among drivers remained limited. Furthermore, government authorities and traffic police introduced various initiatives such as stricter traffic fines, awareness campaigns, CCTV surveillance, and road safety programs to reduce traffic violations and aggressive driving. Educational institutions and media also contributed towards promoting responsible driving behaviour and spreading awareness about road safety.

Even though people were aware of the harmful consequences of aggressive driving and road rage, the problem continued to exist due to practical and psychological factors. Stressful traffic conditions, lack of emotional control, and poor driving discipline remained major challenges in ensuring safe roads. Therefore, it became important to study the behaviour, attitudes, and experiences of individuals regarding aggressive driving and road rage. This study focused on understanding the causes, effects, and perceptions related to aggressive driving among Delhiites and identifying the key factors influencing such behaviour on roads.

1.2 Problem Statement

Although awareness regarding road safety and traffic rules increased in recent years, aggressive driving and road rage continued to remain major concerns among Delhiites. People understood the negative consequences of reckless driving behaviour, yet incidents of road rage, unsafe driving, and traffic-related conflicts were frequently observed on Delhi roads. One of the major reasons behind aggressive driving was increasing traffic congestion and time pressure. Long traffic jams, delays, overcrowded roads, and stressful urban lifestyles often created frustration among drivers. Many individuals became impatient while driving and reacted aggressively in difficult traffic situations.

- Emotional stress, anxiety, work pressure, and lack of self-control among drivers have increased aggressive driving and road rage incidents on Delhi roads.
- Irresponsible driving practices such as unnecessary honking, speeding, rash driving, and violation of traffic rules have created unsafe road conditions and frequent conflicts among commuters.
- Lack of traffic discipline, including ignorance of lane rules, traffic signals, and speed limits, has negatively affected overall road safety in the city..
- Limited awareness regarding emotional management and responsible driving behaviour has reduced understanding of the impact of aggressive driving on public safety, mental health, and social harmony.

- Weak and inconsistent implementation of traffic regulations in certain areas has encouraged unsafe driving behaviour and reduced fear of penalties among drivers.

1.3 Objectives of the Study

The study aimed to achieve the following objectives:

- To examine the relationship between gender and the frequency of road rage incidents among Delhiites.
- To analyze the association between self-rated driving behavior and aggressive driving behaviour.
- To evaluate the relationship between public perception of traffic law effectiveness and the frequency of road rage behaviour.

These objectives helped in providing a clear understanding of aggressive driving behaviour and the major psychological, social, and traffic-related factors contributing to road rage among Delhiites.

1.4 Scope of the Study

The study focused on analyzing aggressive driving behavior and road rage among Delhiites within a specific group of respondents. The sample mainly included students and working professionals, as they represented active road users who regularly experienced traffic conditions and commuting challenges in Delhi. The research covered key areas such as awareness of road safety, driving behaviour, emotional reactions while driving, and perceptions regarding road rage incidents. It also examined factors such as traffic congestion, stress, lack of patience, time pressure, and traffic rule violations that influenced aggressive driving behaviour. Despite these limitations, the study provided useful insights into the causes and effects of aggressive driving and road rage among Delhiites. It also highlighted important behavioural and social trends related to road safety and offered valuable suggestions for improving traffic discipline and promoting responsible driving behaviour in the city

2. LITERATURE REVIEW

Aggressive driving and road rage have become major concerns in urban transportation systems due to increasing traffic congestion, stressful lifestyles, and changing behavioural patterns among drivers. Researchers across different countries have attempted to understand the psychological, social, and environmental causes responsible for hostile driving behaviour. Aggressive driving is generally defined as unsafe or intentionally harmful driving actions that may endanger other road users. Common forms include speeding, dangerous overtaking, abrupt lane changing, tailgating, excessive honking, and violation of traffic rules. Road rage, however, is considered a more severe form of aggression in which drivers may engage in verbal abuse, threats, or even physical violence during road conflicts. With rapid urbanization and rising vehicle ownership, metropolitan cities have witnessed a noticeable increase in such incidents. Delhi, being one of the most densely populated and traffic-congested cities in India, provides a highly relevant setting for studying aggressive driving behaviour. Long commuting hours, overcrowded roads, irregular traffic movement, noise pollution, and weak lane discipline often create stressful driving conditions that may influence driver emotions and reactions. Previous studies suggest that aggressive driving is not caused by a single factor; rather, it develops through the interaction of emotional instability, environmental stress, demographic characteristics, and situational frustration. Researchers have also emphasized that aggressive behaviour on roads negatively affects both public safety and mental well-being. Therefore, understanding earlier research becomes important for identifying the major behavioural patterns and causes associated with road rage among urban drivers.

One of the earliest and most influential contributions to aggressive driving research was made by Deffenbacher and his colleagues. Their studies primarily focused on driving anger and its relationship with risky driving behaviour. According to their findings, drivers with high anger levels were more likely to speed, engage in verbal abuse, overtake dangerously, and ignore traffic regulations. The researchers argued that emotional frustration significantly increases impulsive reactions during driving situations. They also introduced the concept that aggressive drivers often perceive

ordinary traffic problems as personal provocation. For example, delays at signals, slow-moving vehicles, or lane-cutting incidents may trigger hostile responses among emotionally reactive drivers. The study further explained that repeated exposure to stressful traffic conditions gradually increases irritability and lowers patience levels. Deffenbacher's work became highly important because it established a psychological foundation for understanding aggressive driving behaviour. Instead of viewing dangerous driving merely as carelessness, the research highlighted the role of emotional and cognitive factors in shaping driver actions. Later researchers used these findings to develop anger-management approaches and behavioural interventions aimed at reducing road rage incidents. However, some critics argued that focusing only on individual anger does not fully explain aggressive driving because traffic infrastructure and environmental conditions also contribute significantly to driver frustration.

Several researchers later shifted their attention from personality traits to situational and environmental influences. Ellison-Potter and colleagues examined how anonymity inside vehicles affects human behaviour on roads. Their research suggested that drivers often feel socially detached while sitting inside vehicles, which reduces accountability and encourages aggressive reactions. Because face-to-face interaction is absent during driving, individuals may behave in ways they would normally avoid in public settings. The study observed that drivers were more likely to use rude gestures, unnecessary honking, shouting, and aggressive overtaking when they felt anonymous. This perspective introduced an important sociological dimension to aggressive driving research. It suggested that the physical environment of driving itself encourages hostile behaviour by reducing social restraint. Other researchers supported this argument and explained that enclosed vehicles create psychological separation between individuals, making it easier for frustration to turn into aggression. Traffic congestion further intensifies this effect because drivers already experiencing stress may react more impulsively under anonymous conditions. Some studies also indicated that crowded urban roads increase competition among drivers, where individuals attempt to dominate road space through aggressive behaviour. Such findings became particularly relevant for

cities like Delhi, where overcrowded roads and irregular driving patterns frequently create conflict situations among motorists.

Traffic congestion has consistently appeared as one of the strongest contributors to aggressive driving behaviour in both international and Indian studies. Researchers observed that long waiting times, signal delays, road construction, poor traffic management, and excessive noise exposure increase stress levels among drivers. In densely populated urban areas, daily commuting often becomes physically exhausting and mentally frustrating. Studies conducted in metropolitan cities reported that drivers exposed to continuous congestion experience emotional fatigue, impatience, anxiety, and reduced concentration levels. These psychological reactions increase the probability of hostile responses during traffic interactions. Researchers also found that environmental stress caused by overcrowded roads may indirectly influence decision-making ability, resulting in impulsive driving practices such as sudden braking, risky overtaking, and lane violations. Some studies even connected traffic-related stress with higher heart rates and emotional exhaustion among drivers. Continuous exposure to such conditions may gradually normalize aggressive behaviour on roads. However, a few researchers argued that congestion alone does not necessarily lead to aggression. According to them, driver attitude, emotional control, and social behaviour determine how individuals respond to stressful situations. This contradiction within existing literature indicates that aggressive driving cannot be explained through a single theoretical approach. Instead, it should be viewed as a multidimensional behavioural problem shaped by both external and internal influences.

Demographic factors have also been widely examined in aggressive driving research. Many international studies reported that younger drivers, especially males, were more likely to display risky and competitive driving behaviour. Researchers associated this trend with thrill-seeking tendencies, impatience, emotional impulsiveness, and greater willingness to take risks. Younger individuals were often found engaging in speeding, rapid lane changing, and dangerous overtaking more frequently than older drivers. Some researchers further argued that social pressure and competitive urban lifestyles

encourage aggressive road behaviour among younger populations. However, not all studies fully agreed with this viewpoint. Certain researchers observed that aggressive driving is more strongly influenced by stress exposure and personality traits rather than age alone. In some cases, older drivers also demonstrated hostility when exposed to repeated traffic frustration or emotional pressure. Gender differences were similarly debated within literature. While several studies found males to be more physically aggressive during road conflicts, some researchers suggested that females may also experience significant driving anger but express it differently, often through verbal reactions or emotional distress rather than risky driving actions. These differing observations indicate that demographic variables alone cannot completely explain aggressive driving patterns.

Indian researchers have increasingly focused on aggressive driving because of rising urban traffic problems and accident rates. Indian roads present unique challenges such as mixed traffic movement, irregular lane discipline, excessive honking, poor pedestrian management, and weak adherence to traffic rules. These conditions often create stressful driving environments that increase frustration among motorists. One important Indian study examining road rage prevalence identified impatience, stressful lifestyles, alcohol consumption, emotional imbalance, and urban pressure as major causes of aggressive behaviour. The research [21] reported that young drivers were more likely to engage in speeding, reckless overtaking, and verbal aggression. Another important study titled *Aggressive Driving Case Studies and Mitigation in India* specifically analyzed incidents around Delhi and NCR regions. The researchers observed behaviours such as tailgating, red-light jumping, dangerous lane changing, and aggressive honking among drivers. Interestingly, the study noted that many aggressive incidents developed suddenly due to accumulated stress and immediate traffic provocation rather than pre-planned hostility. Researchers emphasized that increasing urban pressure and poor traffic discipline together create conditions that encourage road rage. Despite these findings, Indian literature on aggressive driving remains comparatively limited, particularly regarding psychological triggers and emotional experiences of drivers in metropolitan cities like Delhi. Most existing Indian studies focus heavily on accident statistics and traffic

violations rather than behavioural analysis. Therefore, there remains a significant research gap in understanding how Delhiites experience and respond to aggressive driving situations in everyday urban traffic conditions.

2.2 Concept of Responsible Driving Behaviour

Responsible driving behaviour referred to following traffic rules, maintaining patience, respecting other road users, and driving in a safe and disciplined manner. It emphasized the importance of self-control, emotional balance, and civic sense while driving on roads. Responsible drivers were generally expected to follow speed limits, maintain lane discipline, avoid unnecessary honking, and behave calmly during stressful traffic situations. Researchers suggested that responsible driving played an important role in reducing road accidents, improving public safety, and creating a more positive driving environment for commuters.

Studies indicated that people generally preferred disciplined and safe driving behaviour because it reduced conflicts and helped maintain smoother traffic conditions. Drivers who showed patience and respected traffic regulations were less likely to engage in aggressive behaviour or road rage incidents. Responsible driving also helped in building trust and cooperation among road users, which was essential for maintaining road discipline in crowded urban environments. Researchers found that awareness regarding road safety, emotional control, and respect for other commuters positively influenced responsible driving practices.

2.3 Concept of Aggressive Driving and Road Rage

Consumer awareness of sustainability increased significantly in recent years due to various factors such as education, media exposure, and government initiatives. Studies showed that consumers were becoming more informed about environmental issues and the impact of their consumption patterns.

Aggressive driving and road rage have become common problems in today's urban traffic environment, especially in large metropolitan cities where people deal with heavy congestion, long commuting hours, and stressful road conditions every day. Aggressive driving generally refers to unsafe or hostile behavior shown by drivers during traffic situations. This behavior may include overspeeding, unnecessary honking, frequent lane changing, tailgating, risky overtaking, ignoring traffic rules, or shouting at other drivers. Road rage is considered a more serious form of aggressive driving in which a driver reacts with extreme anger or loses emotional control during conflicts on the road. In some situations, frustration and irritation become so intense that they lead to verbal abuse, threats, or physical confrontation between drivers.

2.4 Attitudes of People Towards Aggressive Driving and Road Rage

Different studies showed that people generally considered aggressive driving and road rage as dangerous and irresponsible behavior. Most individuals were aware that actions such as over speeding, unnecessary honking, risky overtaking, sudden lane changing, and verbal arguments on roads could increase the chances of accidents and create safety risks for both drivers and pedestrians. Many commuters also expressed concern regarding the growing level of anger and impatience visible in urban traffic conditions. Researchers found that people usually supported the idea of safe driving practices and believed that maintaining patience and following traffic rules were important for reducing road accidents and improving public safety.

Researchers additionally observed that many people blamed poor traffic management, overcrowded roads, weak enforcement of traffic rules, and lack of driving discipline for increasing aggressive driving behavior in cities. In metropolitan areas such as Delhi, commuters regularly faced traffic jams, delays, noise pollution, and chaotic road conditions, which gradually increased stress and irritation among drivers. Although most people supported road safety and disciplined driving in theory, actual driving behavior often changed under pressure and frustration. This showed the existence of a gap between people's attitudes toward safe driving and their real behavior during stressful traffic situations.

2.5 Driver Awareness Regarding Road Safety

Awareness regarding road safety and responsible driving behavior increased significantly in recent years because of government initiatives, media campaigns, educational programs, and growing public discussion about road accidents and traffic-related violence. People gradually became more informed about the dangers associated with aggressive driving, overspeeding, rash driving, and road rage incidents. Researchers observed that awareness about traffic rules, accident prevention, and safe driving practices improved among urban commuters, especially in metropolitan cities where traffic congestion and accident rates remained high.

Social media and digital platforms played an important role in spreading awareness regarding road safety and responsible driving behavior. Platforms such as Instagram, YouTube, Facebook, and online news channels regularly highlighted incidents related to road rage, traffic accidents, reckless driving, and public conflicts on roads. Awareness campaigns, traffic police initiatives, online discussions, and educational videos exposed people to the importance of following traffic rules and maintaining discipline while driving. Researchers found that digital media increased public exposure to road safety messages and encouraged discussions regarding responsible driving practices.

2.6 Gap in Literature

Although a considerable amount of research has already been conducted on road safety, traffic violations, and driving behaviour, several important gaps still remain within the existing literature. Earlier studies mainly focused on accident statistics, traffic rule violations, and general road safety issues. Researchers frequently discussed the increasing number of road accidents and the importance of traffic discipline, but comparatively fewer studies examined the psychological and emotional dimensions associated with aggressive driving and road rage. Factors such as stress, frustration, anger, impatience, emotional imbalance, and behavioural responses during traffic situations were not explored in sufficient detail in many previous studies. As a result, the emotional and behavioural causes behind aggressive driving remained comparatively

underexplored. Another important limitation observed in earlier research was the lack of studies conducted within specific urban contexts, especially in densely populated metropolitan cities like Delhi. Traffic conditions in Delhi are significantly different from many other cities because of extremely high population density, increasing vehicle ownership, long commuting hours, overcrowded roads, and continuous traffic congestion. Daily commuters in Delhi regularly experience stressful driving conditions, delays, noise pollution, poor lane discipline, and frequent traffic violations, which increase the likelihood of aggressive behavior and road rage incidents. However, limited studies specifically examined how these urban conditions influenced the emotions, attitudes, and behavior of drivers in Delhi.

Previous literature also paid comparatively less attention to the behavioral gap between awareness and actual driving practices. Many drivers were aware of traffic rules and understood the negative consequences of aggressive driving, yet they continued engaging in behaviors such as unnecessary honking, dangerous overtaking, speeding, verbal aggression, and violation of traffic rules during stressful traffic situations. While earlier studies acknowledged the existence of this gap, relatively limited research examined why awareness regarding road safety often failed to translate into disciplined driving behavior in practical situations. Psychological pressure, emotional stress, and environmental frustration were often discussed individually rather than together within a single framework.

Therefore, the present study attempted to address these research gaps by examining aggressive driving and road rage among Delhiites while considering psychological, emotional, social, and traffic-related factors together within one framework. The study focused on understanding how stress, traffic congestion, emotional control, public attitudes, and perception regarding traffic laws collectively influenced aggressive driving behavior among commuters in Delhi.

3. RESEARCH METHODOLOGY

The present study titled *"Aggressive Driving and Road Rage: A Study Among Delhiites"* attempts to examine behavioural patterns, emotional reactions, and situational factors associated with aggressive driving in Delhi. Research methodology serves as the foundation of the study because it provides a systematic process for collecting, organizing, and interpreting information. Since aggressive driving is influenced by traffic conditions, stress, frustration, and individual behaviour, it was important to adopt a research methodology capable of capturing both behavioural tendencies and personal experiences of drivers.

Delhi presents a unique urban setting for this research due to its dense traffic movement, rising vehicle population, long commuting hours, and increasing incidents of road conflicts. Drivers in the city frequently encounter congestion, excessive honking, irregular lane discipline, and stressful traffic situations. Such conditions may gradually influence emotional stability and driving behaviour. Therefore, the methodology for the present study was designed carefully to ensure that the collected information reflects real experiences and perceptions of people driving regularly within Delhi.

3.1 Research Design

The present study follows a descriptive and exploratory research design. The descriptive approach was adopted because the study aims to identify and explain the nature, frequency, and behavioural forms of aggressive driving and road rage among Delhiites. It helped in understanding behaviours such as excessive honking, dangerous overtaking, verbal abuse, shouting, tailgating, and angry reactions during traffic congestion. Descriptive research is useful in studies where the objective is to examine behavioural trends and public perception regarding a social issue. In the context of the present study, it also helped in understanding how drivers perceive traffic discipline and law enforcement within Delhi.

The research further includes an exploratory component because aggressive driving is not only a traffic issue but also a behavioural and psychological phenomenon. Emotional

frustration, stress, impatience, and urban pressure influence individuals differently. Existing Indian studies have focused more on accident statistics and traffic violations, while comparatively less attention has been given to emotional experiences and behavioural responses of drivers. Therefore, the exploratory design was useful for generating deeper understanding regarding the situational and psychological dimensions of road rage behaviour.

The study adopted a quantitative approach using a cross-sectional method in which data was collected from respondents at a single point in time. This method was considered suitable because it allowed the researcher to capture current driving experiences, behavioural reactions, and perceptions related to aggressive driving among Delhi drivers.

3.2 Nature of the Study

The study was both quantitative and qualitative in nature.

- The quantitative aspect involved collecting numerical data through structured questionnaires and analyzing it using percentages, statistical tests, tables, and charts.
- The study examined behavioural factors such as stress, frustration, emotional control, traffic congestion, and public attitudes towards road safety.

This combination provided a comprehensive understanding of aggressive driving behaviour and road rage among Delhiites

3.3 Source of Data

The study is based on both primary and secondary data sources. The use of both types of data improved the reliability and depth of the research findings.

Primary Data

Primary data refers to original information collected directly from respondents for the purpose of the study. In the present research, primary data was gathered from individuals

who regularly drive within Delhi and experience urban traffic conditions in their daily lives. Since aggressive driving is closely connected with personal experiences and emotional reactions, collecting first-hand information was necessary for understanding the actual behavioural tendencies of drivers.

The primary data helped in examining how individuals react during traffic congestion, how often they experience frustration on roads, and whether they engage in behaviours such as unnecessary honking, shouting, risky overtaking, or verbal aggression. It also provided insight into public opinion regarding road discipline and traffic law enforcement.

Secondary Data

Secondary data refers to information already published by researchers, organizations, institutions, or government agencies. For the present study, secondary information was collected from academic journals, books, newspapers, research articles, traffic safety reports, online databases, and previous studies related to aggressive driving and road rage behaviour.

Reviewing secondary sources helped in understanding theoretical concepts, behavioural explanations, demographic trends, and previous findings related to aggressive driving. These sources also assisted in identifying gaps in earlier literature and provided conceptual support for the development of the study.

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3.4 Data Collection Method

Data for the present study was collected using a structured questionnaire. Both online and offline modes were used to ensure wider participation and diversity among respondents. The questionnaire method was selected because it allows systematic collection of standardized information from a large number of participants.

Modes of Data Collection

- Online survey through Google Forms
- Distribution through social media platforms
- Offline questionnaire responses

- Direct interaction with respondents
- Field visits to parking areas and transport hubs

Information Collected Through Questionnaire

- Age, gender, and occupation of respondents
- Type of vehicle used
- Driving experience
- Self-perception of driving behaviour
- Frequency of aggressive reactions while driving
- Experiences related to road rage incidents
- Opinions regarding traffic congestion and traffic law enforcement

The questionnaire included both demographic and behavioural questions. Most behavioural statements were measured using a five-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree" and "Very Frequently" to "Never." This scaling method helped in measuring the intensity and frequency of aggressive driving behaviour in a standardized manner.

A pilot study with 10 respondents was conducted before final distribution of the questionnaire. Necessary modifications were made to improve clarity, remove repetitive wording, and maintain logical sequence of questions. Respondents were assured that their responses would remain confidential and would be used only for academic purposes.

3.5 Sampling Technique

The study adopted purposive sampling as the sampling technique because the research specifically focused on individuals who regularly drive within Delhi. Purposive sampling is a non-probability sampling method in which respondents are selected according to their relevance to the objectives of the study.

Participants included office commuters, private vehicle users, students, and commercial drivers. Efforts were made to include respondents belonging to different age groups, genders, and occupations so that varied perspectives regarding aggressive driving

behaviour could be obtained. Although purposive sampling does not ensure complete representation of the entire population, it was considered suitable for reaching respondents who possess direct experience related to Delhi's traffic conditions and road behaviour.

3.6 Sample Size

The final sample for the study consisted of 100 valid respondents. Initially, a larger number of responses was collected; however, incomplete and inconsistent questionnaires were removed to maintain reliability and accuracy of the findings.

The selected sample size was considered appropriate for conducting statistical analysis and identifying behavioural trends associated with aggressive driving and road rage among Delhiites. It also allowed application of percentage analysis, Chi-Square tests, and t-tests for examining relationships between variables.

3.7 Tools Used for Data Analysis

The collected data was organized, coded, and analysed using Microsoft Excel and SPSS (Statistical Package for the Social Sciences). These tools assisted in systematic analysis and interpretation of the collected responses.

Microsoft Excel was used for:

- Data entry and coding
- Classification of responses
- Preparation of tables, charts, and graphs
- Percentage analysis and basic calculations
- Organizing questionnaire data systematically

SPSS was used for:

- Statistical analysis of collected data
- Conducting Chi-Square tests
- Performing t-tests
- Examining relationships between variables

- Interpretation and validation of findings

The use of these analytical tools improved accuracy, reliability, and presentation of the research findings.

3.8 Variables of the Study

The study included both independent and dependent variables to examine relationships between demographic characteristics and aggressive driving behaviour.

Independent Variables

- Gender
- Age group
- Occupation
- Type of vehicle used
- Driving experience
- Self-perceived driving behaviour
- Perceived effectiveness of traffic laws

Dependent Variables

The dependent variables mainly focused on aggressive driving behaviour and road rage incidents among respondents. These included frequency of excessive honking, verbal aggression, shouting during traffic conflicts, angry reactions during congestion, risky overtaking, and tailgating behaviour.

The variables were selected after reviewing previous studies and conducting pilot testing. Their inclusion helped in examining behavioural tendencies and identifying factors associated with aggressive driving among Delhiites.

3.9 Hypotheses of the Study

The following hypotheses were formulated for the present study:

Hypothesis 1

H1: There is a significant relationship between gender and frequency of road rage incidents.

Hypothesis 2

H1: Self-rated driving behaviour is significantly associated with aggressive driving behaviour.

Hypothesis 3

H1: There is a significant relationship between perception of traffic law effectiveness and frequency of road rage behaviour.

3.10 Ethical Considerations

Ethical considerations were considered during the research process.

- Respondents were informed about the purpose of the study
- Participation was voluntary
- Responses were kept confidential and anonymous
- Data was used only for academic purposes

This ensured transparency and fairness in the research process.

3.11 Limitations of the Study

The study had certain limitations:

- Limited sample size
- Restricted time period
- Use of convenience sampling
- Responses based on personal opinions
- Limited geographic coverage

These limitations may have affected the generalizability of the results.

3.12 Significance of the Study

The study was significant in understanding aggressive driving behaviour and road rage among Delhiites.

It provided insights into:

- Driver awareness regarding road safety and traffic rules.
- Driving behaviour and experiences related to road rage incidents.

- Attitudes towards aggressive driving and responsible driving behaviour.

The findings can help authorities, traffic police, and policymakers develop better awareness programs, improve traffic management, and promote safer and more disciplined driving behaviour.

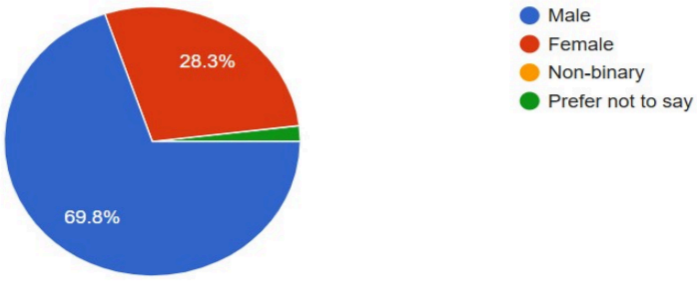
4. ANALYSIS, DISCUSSION AND RECOMMENDATIONS

The present study used quantitative methods to analyze aggressive driving behavior and road rage among Delhiites. The collected responses were organized, coded, and analyzed using Microsoft Excel and SPSS software. Statistical techniques such as Chi-Square tests and a One-Sample t-test were applied to examine relationships between demographic variables, behavioral tendencies, and perceptions regarding traffic law effectiveness. The analysis helped in understanding whether factors such as gender, self-perception of driving behavior, and attitudes toward traffic regulations significantly influenced aggressive driving behavior among respondents.

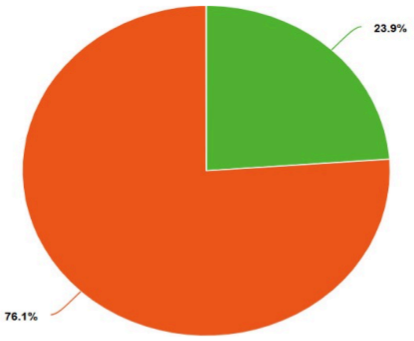
4.1 Data Analysis & Interpretation

4.1.1 Gender vs. Frequency of Road Rage (Chi-Square Test)

- Pearson Chi-Square value: 4.138
- Degrees of Freedom (df): 4
- p-value: 0.388
- Conclusion: No statistically significant relationship between gender and frequency of road rage.
- Note: 4 cells (44.4%) had expected counts less than 5, slightly violating test assumptions.



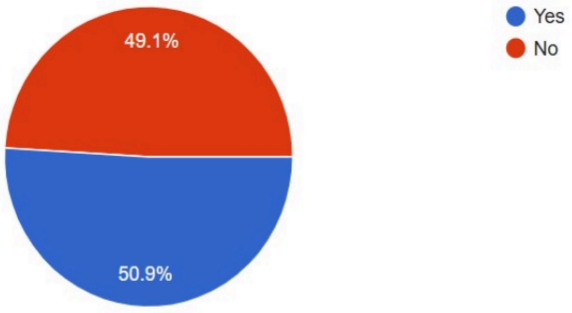
Frequency of road rage



H1: There is a significant relationship between gender and the frequency of road rage.

4.1.2 Self-Rated Driving vs. Aggressive Behavior (Chi-Square Test)

- Pearson Chi-Square value: 2.089
- Degrees of Freedom (df): 4
- p-value: 0.719
- Conclusion: No significant association between self-rated driving behavior and aggressive driving.
- Note: 2 cells (20%) had expected counts less than 5.

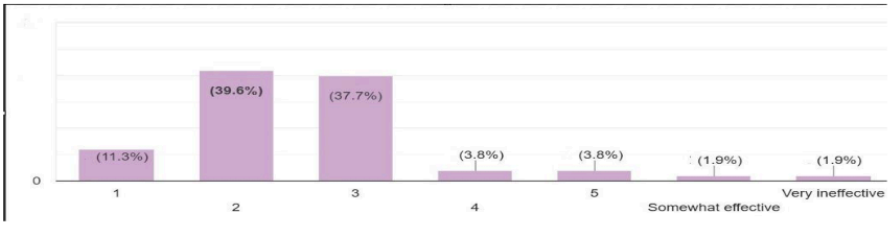


Have you lost your temper while driving?

H1: Self-rated driving behavior is significantly associated with aggressive road behavior.

4.1.3 Perception of Law Effectiveness (One-Sample T-Test)

- Mean: 2.48 (on a 5-point Likert scale)
- t-statistic: 27.165
- df: 95
- p-value: 0.000
- Conclusion: Statistically significant, indicating that respondents believe current traffic laws are moderately effective, but with room for improvement.



H1: There is a significant relationship between law perception and frequency of road rage.

```
T-TEST
  /TESTVAL=0
  /MISSING=ANALYSIS
  /VARIABLES=Howeffectivedoyouthinkcurrentlawsandregulationsareincontrollinga
  /CRITERIA=CI(.95).
```

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
How effective do you think current laws and regulations are in controlling aggressive driving and road rage in Delhi?	96	2.48	.894	.091

4.2 Findings

From the above research results, it is clear that aggressive driving and road rage are common experiences of the Delhi population. The majority of respondents noted that they regularly experience instances of excessive honking, aggressive language use, tailgating, ignoring signals, and dangerous overtaking when moving around on the roads of Delhi on a daily basis. These instances have become common occurrences in the city's traffic environment, especially when traffic congestion takes place on the roads.

One of the most interesting findings from the conducted study concerns the impact of road congestion and stressful road conditions on driver behaviour. The respondents have stressed that traffic congestion, road overcrowding, delays, and lack of effective traffic management increase the level of frustration among drivers, which influences their driving behaviour negatively.

An interesting result of the survey is associated with the inability of respondents to maintain self-control under stressful circumstances. Despite considering themselves disciplined drivers, the surveyed people noted that they sometimes lose self-control in traffic jam situations. It shows that, while people are well aware of the need for discipline and safety on roads, stressful circumstances force them to act in a certain way.

In addition, aggressive driving behavior was not significantly linked to gender either. Even though the majority of male respondents admitted engaging in aggressive actions, no significant relation could be drawn statistically between the gender and the occurrence of road rage. This indicates that aggressive driving behavior is becoming a common trend and does not have any relation to gender in the context of today's society.

One more significant result of this research is the dissatisfaction of the respondents regarding the enforcement of the traffic laws and order of roads in Delhi. The effectiveness of the present traffic regulations is moderate as far as controlling the phenomenon of aggressive driving is concerned due to the insufficient execution, control and lack of proper punishment for those who break the traffic rules.

Lastly, this study confirmed the fact that road rage is not only a traffic problem but a psychological and social one too. Such personal traits as emotional imbalance, stress from everyday life, work, commuting contribute significantly to road rage. Overall, aggressive behavior on Delhi roads is caused by a number of interconnected factors such as traffic situation, stress, behavioral patterns, and lack of traffic order.

4.4 Recommendations

Following the outcomes revealed by the study, certain recommendations could be formulated that would help decrease cases of aggressive driving and road rage and enhance road safety for Delhi residents.

Firstly, it is highly essential to raise public awareness of responsible driving conduct. In addition to the rules of the road, it is crucial to teach citizens about the importance of self-control, patience, and being a responsible citizen when driving a vehicle. In turn, government bodies, education establishments, and the media can assist in raising awareness about the negative consequences associated with road rage and unsafe driving.

Secondly, stricter and more consistent enforcement of traffic regulations seems to be necessary. The respondents reported frustration in terms of insufficient monitoring of traffic regulations and no fear of penalty. Hence, it is vital to introduce strict penalty measures, enhance monitoring using CCTV cameras, and develop artificial intelligence technology in traffic regulation systems.

Recommendation four would entail improvements of infrastructure, including minimizing traffic congestion in Delhi. Improved traffic planning, enhanced public transport systems, good parking facilities, and traffic flow can minimize frustrations experienced by commuters. Traffic congestion being identified as one of the reasons behind the high rate of aggressiveness amongst motorists, improving infrastructure can play a vital role in creating safer driving conditions.

Driver education and behavioral training have also been highlighted in this research. This includes the inclusion of emotional control, anger management, and road safety courses as part of driver education initiatives. Such educational courses will help individuals develop patience and discipline.

Traffic ethics should also be taught to people while they are young. By teaching traffic ethics at schools and colleges, future generations will learn how to become responsible motorists.

Community participation is also an important measure that should be taken for improving road safety in Delhi. Citizen awareness programs as well as forums can help people share their views on road safety. Moreover, the introduction of reporting tools via smartphones can help monitor and report cases of road rage and aggressive behavior.

4.5 Limitations of the Study

Although the study offered valuable insights into aggressive driving and road rage among people living in Delhi, it faced some limitations while carrying out the research. Firstly, the small sample size could be pointed out as a limitation. Since the study used a sample consisting of only a few respondents, the findings cannot fully capture the behavior and attitudes of all residents of Delhi.

Secondly, sampling error is another limitation associated with the study. As the purposive sampling technique was used for conducting this study, it is possible that there was some form of sampling bias in the study. This happened because not all demographic segments were represented equally in the survey.

Thirdly, the study suffered from lack of demographic diversity among the respondents. Most respondents included in the study were students, office workers, and urban commuters. In other words, this means that the survey captured experiences and attitudes only of one particular group of drivers in Delhi.

Further, self-reports obtained from questionnaire responses were utilized in the conduct of this research. There is always a tendency for such responses to be distorted either due to personal bias, subjective interpretation, and social desirability. The participants involved might have reported or exaggerated their aggressive driving behavior in line with their own perception and self-assessment.

Another limitation of this research was the time constraint. As a result of the limited amount of time available, behavioral observations as well as a broader coverage geographically in the city of Delhi were not possible. Moreover, since this study has been conducted solely within the context of Delhi traffic conditions, its results cannot be applied elsewhere.

5. CONCLUSION

The current research titled "Aggressive Driving and Road Rage: A Study Among Delhiites" was aimed at determining the behavioural patterns, emotions, and situations related to aggressive driving among individuals who frequently drive around Delhi. From the findings of the research, it can be observed that aggressive driving and road rage are becoming more frequent phenomena in the city because of factors such as rapid urbanization, traffic pollution, stressful living conditions, higher vehicle density, and lack of traffic discipline. Respondents in the study witnessed or experienced activities like over-honking, over-taking, tail-gating, shouting at other drivers, violation of traffic signals, and getting angry under congested traffic conditions.

Traffic congestion, delay, overcrowded roads, commuting time, and emotional stress have been identified as some of the important reasons for aggressive driving behavior, through research. It has also been found that the respondents felt that stressful road conditions and poor traffic management led to high levels of frustration and impacted their emotional well-being. It is also seen from the research that personal stress, work pressure, anxiety, and difficulties faced by people during their daily commute also impact driver behavior and lead to aggressive behavior on roads. This means that aggressive driving is not only a traffic problem but also a mental and social problem.

The other significant finding from this research study was the fact that there existed a disconnect between self-perception and the way people really drove. Quite a number of drivers claimed to be disciplined drivers, but they revealed that sometimes they were guilty of committing such actions like screaming, unnecessary honking, reckless overtaking, and getting annoyed in traffic conditions. From this particular research, it came to light that even when one is knowledgeable about traffic safety practices and rules, it doesn't necessarily mean that he or she will drive in a disciplined manner.

In addition, the effect of demographics on aggressive driving behavior was also investigated in the study. Statistical data revealed that there is no significant correlation between demographic aspects and aggressive driving behavior, implying that road rage has evolved into a behavioral problem that is no longer specific to any particular

demographic groups. While males demonstrated slightly higher aggression compared to females, it was not substantial enough for a statistical correlation to be determined.

One more significant finding from the study pertained to the perception of citizens in relation to traffic laws and traffic management systems. Citizens generally agreed that there was moderate effectiveness in traffic laws and traffic regulations in terms of controlling aggressive driving behavior. The general consensus was that ineffective enforcement of traffic rules, lack of strict monitoring, absence of any punitive measures, and inadequate traffic discipline led to dangerous driving behavior in Delhi.

On the whole, this study found out that aggressive driving and road rage pose major issues related to road safety, human behavior, and mental health in Delhi. These problems are determined by several interrelated variables such as traffic jam, emotional stress, lack of patience, poor traffic discipline, and weak traffic law enforcement. To address the problem of aggressive driving behaviors, both individuals and society have to make joint efforts. More knowledge about responsible driving, emotion control, patience, and citizenship may contribute to changing behavior in terms of driving. Furthermore, effective traffic management, stringent traffic law enforcement, efficient public transportation systems, and behavioral awareness programs are crucial for improving the situation.

6. REFERENCES

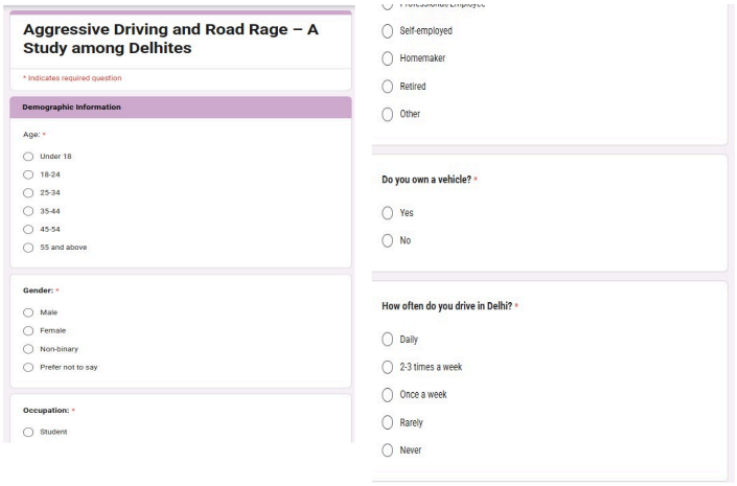
1. Deffenbacher, J. L., Lynch, R. S., Oetting, E. R., & Swaim, R. C. (2002). The driving anger expression inventory: A measure of how people express their anger on the road. *Behaviour Research and Therapy, 40*(6), 717-737. Retrieved from ScienceDirect database.
2. Ellison-Potter, P., Bell, P., & Deffenbacher, J. (2001). The effects of trait driving anger, anonymity, and aggressive stimuli on aggressive driving behavior. *Journal of Applied Social Psychology, 31*(2), 431-443. Retrieved from Wiley Online Library database.
3. Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. (2013). Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing, 89*(1), 44-61. Retrieved from ScienceDirect database.
4. Joint, M. (1995). Road rage and aggressive driving behaviour. *AA Foundation for Road Safety Research*. London: AA Publications.
5. Kumar, R., & Vij, A. (2014). Aggressive driving case studies and mitigation in India. *International Journal of Research in Engineering and Technology, 3*(5), 245-250. Retrieved from ResearchGate database.
6. Parker, D., Lajunen, T., & Summala, H. (2002). Anger and aggression among drivers in three European countries. *Accident Analysis & Prevention, 34*(2), 229-235. Retrieved from ScienceDirect database.
7. Shinar, D. (1998). Aggressive driving: The contribution of the drivers and the situation. *Transportation Research Part F: Traffic Psychology and Behaviour, 1*(2), 137-160. Retrieved from Elsevier database.
8. Tasca, L. (2000). A review of the literature on aggressive driving research. *Road User Safety Branch, Ontario Ministry of Transportation*. Toronto: Queen's Printer for Ontario.
9. World Health Organization. (2018). *Global status report on road safety 2018*. Geneva: World Health Organization. Retrieved from WHO database.

10. Yadav, R., & Tiwari, P. (2017). Psychological factors affecting dangerous driving behaviour among Indian drivers. *Indian Journal of Health and Wellbeing, 8*(4), 321-325. Retrieved from ResearchGate database.

. APPENDICES

7.1 Questionnaire

Link: https://forms.gle/m5wJxDHgAXaJbGqN7



Aggressive Driving and Road Rage – A Study among Delhites

* Indicates required question

Demographic Information

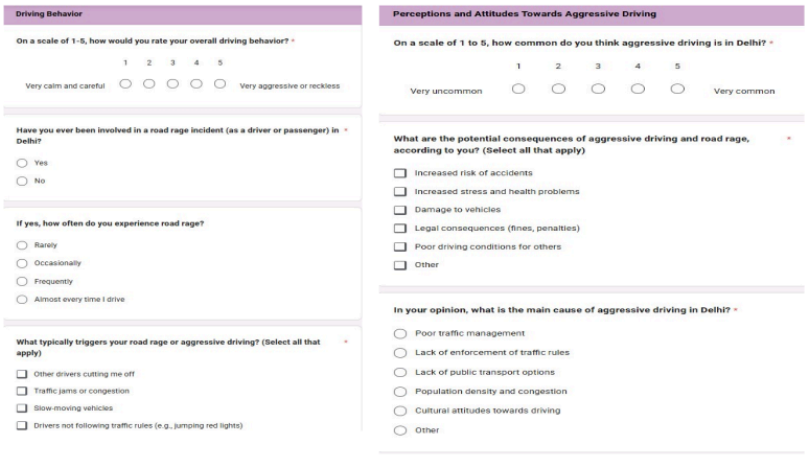
Age: *
- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55 and above

Gender: *
- Male
- Female
- Non-binary
- Prefer not to say

Occupation: *
- Student
- Self-employed
- Homemaker
- Retired
- Other

Do you own a vehicle? *
- Yes
- No

How often do you drive in Delhi? *
- Daily
- 2-3 times a week
- Once a week
- Rarely
- Never



Driving Behavior

On a scale of 1-5, how would you rate your overall driving behavior? *

1 2 3 4 5

Very calm and careful ○ ○ ○ ○ ○ Very aggressive or reckless

Have you ever been involved in a road rage incident (as a driver or passenger) in Delhi? *
- Yes
- No

If yes, how often do you experience road rage?
- Rarely
- Occasionally
- Frequently
- Almost every time I drive

What typically triggers your road rage or aggressive driving? (Select all that apply) *
- Other drivers cutting me off
- Traffic jams or congestion
- Slow-moving vehicles
- Drivers not following traffic rules (e.g., jumping red lights)

Perceptions and Attitudes Towards Aggressive Driving

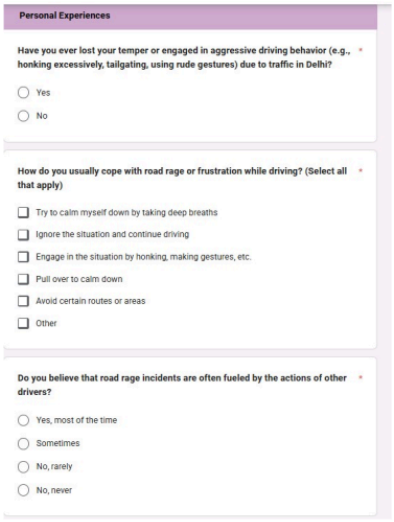
On a scale of 1 to 5, how common do you think aggressive driving is in Delhi? *

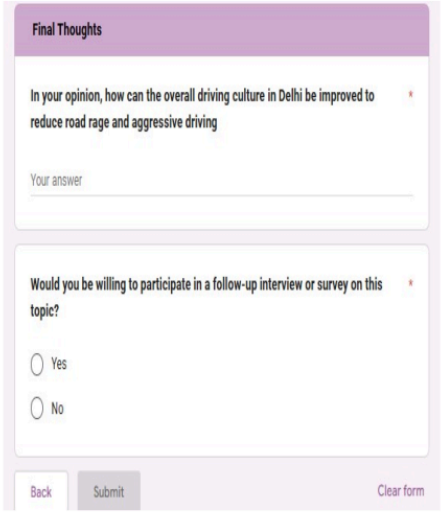
1 2 3 4 5

Very uncommon ○ ○ ○ ○ ○ Very common

What are the potential consequences of aggressive driving and road rage, according to you? (Select all that apply) *
- Increased risk of accidents
- Increased stress and health problems
- Damage to vehicles
- Legal consequences (fines, penalties)
- Poor driving conditions for others
- Other

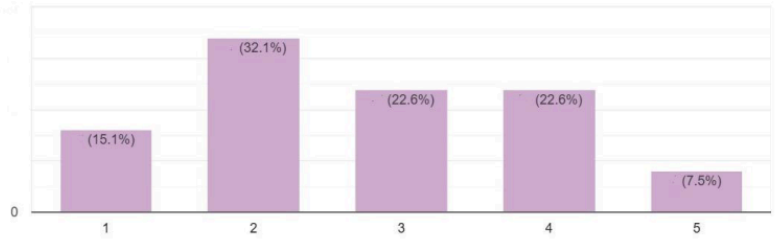
In your opinion, what is the main cause of aggressive driving in Delhi? *
- Poor traffic management
- Lack of enforcement of traffic rules
- Lack of public transport options
- Population density and congestion
- Cultural attitudes towards driving
- Other


Personal Experiences
Have you ever lost your temper or engaged in aggressive driving behavior (e.g., honking excessively, tailgating, using rude gestures) due to traffic in Delhi? *
Yes
No
How do you usually cope with road rage or frustration while driving? (Select all that apply) *
Try to calm myself down by taking deep breaths
Ignore the situation and continue driving
Engage in the situation by honking, making gestures, etc.
Pull over to calm down
Avoid certain routes or areas
Other
Do you believe that road rage incidents are often fueled by the actions of other drivers? *
Yes, most of the time
Sometimes
No, rarely
No, never


Final Thoughts
In your opinion, how can the overall driving culture in Delhi be improved to reduce road rage and aggressive driving *
Your answer
Would you be willing to participate in a follow-up interview or survey on this topic? *
Yes
No
Back
Submit
Clear form

On a scale of 1-5, how would you rate your overall driving behavior?

Copy chart



Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
On a scale of 1-5, how would you rate your overall driving behavior? * Have you ever lost your temper or engaged in aggressive driving behavior (e.g., honking excessively, tailgating, using rude gestures) due to traffic in Delhi?	100	100.0%	0	0.0%	100	100.0%

On a scale of 1-5, how would you rate your overall driving behavior? * Have you ever lost your temper or engaged in aggressive driving behavior (e.g., honking excessively, tailgating, using rude gestures) due to traffic in Delhi? Crosstabulation

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.138[a]	4	.388
Likelihood Ratio	4.564	4	.335
N of Valid Cases	100		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .24.

			Have you ever lost your temper or engaged in aggressive driving behavior (e.g., honking excessively, tailgating, using rude gestures) due to traffic in Delhi?		
			yes	No	Total
On a scale of 1-5, how would you rate your overall driving behavior?	1	Count	8	8	16
		Expected Count	8.0	8.0	16.0
	2	Count	14	20	34
		Expected Count	17.0	17.0	34.0
	3	Count	12	10	22
		Expected Count	11.0	11.0	22.0
	4	Count	12	10	22
		Expected Count	11.0	11.0	22.0
	5	Count	4	2	6
		Expected Count	3.0	3.0	6.0
Total		Count	50	50	100
		Expected Count	50.0	50.0	100.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.089[a]	4	.719
Likelihood Ratio	2.108	4	.716
Linear-by-Linear Association	1.066	1	.302
N of Valid Cases	100		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.00.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender: * If yes, how often do you experience road rage?	100	100.0%	0	0.0%	100	100.0%

Gender: * If yes, how often do you experience road rage? Crosstabulation

			If yes, how often do you experience road rage?		
			Frequently	Occasionally	Total
Gender:	Female	Count	2	8	18	28
		Expected Count	3.4	5.0	19.6	28.0
	Male	Count	10	10	50	70
		Expected Count	8.4	12.6	49.0	70.0
	Prefer not to say	Count	0	0	2	2
		Expected Count	.2	.4	1.4	2.0
Total		Count	12	18	70	100
		Expected Count	12.0	18.0	70.0	100.0

manik

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