

# An Analytical Study on Consumer Perception towards Purchase Intentions of an Electric Vehicle (EV)

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**Abstract:** *The third-largest road network in the world is found in India. Over 60% of people commuted by road in their own or shared vehicles, suggesting that road travel was the favoured mode of transportation. (2020, Statista) Air pollution and global warming are largely caused by conventional automobiles. Brakes, tires, and road wear all contribute to the production of dust in automobiles. Compared to typical gasoline vehicles, average diesel vehicles have a worse impact on air quality. Nonetheless, compared to electric vehicles, both gasoline and diesel vehicles pollute more. (EEA, 2018).*

*With the increased use of renewable energy, Electric Vehicles (EVs) are viewed as one of the most important ways to reduce air pollution and greenhouse gas emissions in the transportation sector globally. Modern environmental concerns are driving the production and marketing of electric vehicles. In India, the notion that electric cars are the superior option to fuel cars—that is, cars with conventional diesel or gasoline combustion engines—has completely changed by the year 2018. Researching the elements that are driving buyer acceptance of these vehicles is crucial to understand Indians' intentions to purchase fully electric cars. Numerous situational factors, including the regulatory environment, individual psychological aspects like attitude and perception, and the acceptance and consideration levels of society, have an impact on consumers' decisions to buy cars. A small number of national governments have updated their innovation development targets successfully, and electric vehicles are considered a possible mode of transportation. Indigenous governments are eager to promote electric vehicles as a sensible way to reduce pollution in cities and as an environmentally friendly mode of transportation.*

*The study unearthed several key findings shaping consumer perception towards electric vehicles in Mumbai City. Positive perceptions towards EVs were prevalent, driven by a strong belief in their environmental benefits. Economic factors, such as the perceived cost of ownership, and societal influences, including the status associated with EVs, emerged as influential determinants. Environmental concerns, local relevance, and the alignment of purchase decisions with sustainability further underscored the complexity of consumer perception.*

*The positive shift in perception, coupled with identified influencers, provides a roadmap for stakeholders to strategically address challenges and leverage opportunities for sustainable and widespread EV adoption. Continuous monitoring, policy refinement, educational initiatives, and collaborative efforts are recommended for a holistic and effective approach*

**Keywords:** Consumer perception, electric vehicle (EV), environmental concern, buyer behaviour, purchase intentions