Chapter 3
Consumer Perspectives and Behaviours in the Electric Vehicle Market: Driving Changes

B. Neeraja
Department of Electrical and Electronics Engineering, Government Polytechnic Hyderabad, India

Warshi Singh
School of Business management, CSJM University, Kanpur, India

K. Arulini
Department of Management Studies, Nandha Engineering College (Autonomous), Erode, India

V. Krishnamoorthy
Department of Management Studies, Kongu Engineering College, Erode, India

Somu Chinnusamy
Research and Development, RSP Science Hub, Coimbatore, India

ABSTRACT

Government rules, environmental concerns, and technological breakthroughs are driving the fast expansion of the electric vehicle (EV) sector. In order to understand potential EV consumers' motives and obstacles, this chapter examines consumer perceptions, habits, and hurdles. It does this by examining market data and current research. The chapter looks at how consumer opinions vary by demography, with particular attention to age, income, and geographic location. It talks about how

DOI: 10.4018/979-8-3693-4314-2.ch003

marketing tactics, public awareness campaigns, and legislative measures like tax breaks and subsidies may alter consumer attitudes and adoption rates. This chapter examines consumer behaviour in the electric vehicle (EV) market and offers strategic solutions to alleviate concerns, enhance market penetration, and promote sustainable industry growth. It also offers insights for regulators, manufacturers, and marketers to expedite the shift.

INTRODUCTION

Thanks to regulatory backing, environmental awareness, and technology developments, the market for electric vehicles (EVs) is changing. Comprehending customer viewpoints and conduct is imperative in expediting the implementation of electric vehicles. This chapter provides a thorough examination of the variables impacting prospective purchasers' decision-making processes as it examines the dynamics of consumer attitudes and behaviours in the EV market. The market for electric vehicles (EVs) is expanding quickly as a result of technical developments, especially in the area of batteries, which have enhanced EV performance and range. This rise has also been attributed to government efforts to lowering greenhouse gas emissions and environmental concerns(Secinaro et al., 2022). The adoption of electric cars has been further encouraged by policy initiatives including subsidies, tax breaks, and harsher emission laws, which have increased their competitiveness with conventional vehicles.

A number of obstacles must be overcome before electric vehicles are widely used, such as range anxiety, a lack of readily available charging infrastructure, initial costs that are greater than those of conventional vehicles, and public views and trust about the vehicles' dependability and performance. The scarcity of charging infrastructure exacerbates the anxiety of inadequate range, especially in rural and less developed places. These obstacles prevent the general adoption of electric vehicles, even with the potential savings on fuel and maintenance(Kumar & Alok, 2020a).

It's critical to comprehend customer incentives and obstacles while advertising electric automobiles. One important component is environmental consciousness, especially for younger generations that place a high value on sustainability. Economic factors also come into play when customers balance one-time expenses with ongoing savings. The economic attraction of electric cars is predicted to rise as economies of scale and battery technology advance, thus it is critical to take these aspects into account when creating successful strategies.

Electric car attractiveness has increased due to technological breakthroughs that have enhanced vehicle performance, charging speed, and battery life. By improving the driving experience and tackling real-world issues related to owning an electric