Understanding Consumer Choices and Attitudes Towards Electric Vehicles in India: A Study of Purchasing Behavior and Policy Implications

Deepak Gautam
Research Scholar at Department of Mechanical Engineering
Indian Institute of Technology
Delhi, India
deepakgautam19932@gmail.com

Nomesh Bolia
Professor at Department of Mechanical Engineering
Indian Institute of Technology
Delhi, India
nomesh@mech.iitd.ac.in

Abstract

Electric vehicles (EVs) are a significant technology that reduces greenhouse gas emissions and contributes to climate change prevention. Despite their many benefits, EV sales are lower than expected, suggesting that dealers may need more incentives to increase the adoption of EVs. This study investigates customer attitudes towards EVs, return behavior, and the factors most likely to influence consumer choice for EVs in India. A comprehensive questionnaire/survey is conducted with 503 respondents, and various logistic regression models are used to analyze consumer choices, attitudes, and perceptions of EVs and related aspects. The results of this study will help us understand consumer purchasing behavior towards EVs and have important policy implications for promoting EVs in India, identifying crucial socio-economic factors that affect consumers' purchasing decisions, suggesting changes to current policies for better implementation, and identifying opportunities for the private sector

Keywords
Electric vehicle, Investigation of customer choice,

Biography

Deepak Gautam is a Doctoral Candidate in the Department of Mechanical Engineering, IIT Delhi. His areas of interest are Operations Research, Statistics, Operations Planning and Control and Public Policy.

Prof. Nomesh B. Bolia is Professor in the Department of Mechanical Engineering, IIT Delhi. He received his B.Tech in Mechanical Engineering from IIT Bombay and PhD from University of North Carolina at Chapel Hill. His areas of research are Operations Research, Stochastic Modelling; their applications to Health Systems, Transportation and Governance.