

A Study on the Impact of Perceived Benefits on Customer Preference for Electric Vehicles#

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Abstract

Indian roads are currently dominated by petrol and diesel cars and bikes with only one percent of the vehicles in India being Electric Vehicles (EVs). India is not self-sufficient and it imports crude oil from other countries, which is a huge burden on the country's balance of payments. India is making efforts to adapt to the EV trend and various automobile manufacturers are taking advantage of the situation by producing and marketing EV vehicles. However, the Indian customer's mindset is not favourable for the promotion of EV's. Hence, an attempt has been made to identify the various aspects that influence or prevent consumers from switching from carbon-fuelled vehicles to electric vehicles. The primary data collected through a well-structured questionnaire has been analysed using Percentage Analysis and Chi-Square analysis. The study found that awareness level is not a significant factor, although awareness was considered a major factor in consumers' preference for buying electric vehicles in earlier literature. Statistically significant results indicate that changes in 'fuel price', 'environmental consciousness' and 'same price as petrol/diesel' significantly influence consumers' buying preferences for an electric vehicle.

Keywords: Customer Perception, EV Infrastructure, Perceived Benefits, Renewable Energy

1. Introduction

A new mobility era is emerging in India propelled by net zero commitment amid growing concerns about climate change. At present, the road transport segment contributes about 123 million tonnes of carbon emissions. Increases in carbon fuel prices as well as increased carbon footprints in this world have caused major problems for consumers as well as the environment in various forms. The growing demand for fossil fuels, industrialization, civilization, global warming, and the depletion of fossil fuels is driving the whole world to adopt different means to power themselves. Hence, switching to an electric fuel vehicle seems to be a better sustainable option to save the environment and money, but only with the condition that such electricity is produced through clean energy forms.

Developed countries like the USA have long since migrated to electric vehicles as is seen in the article published way back in 1997 titled "Electric vehicles as

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