

Electric Vehicle Adoption: Barriers, Incentives, and Market Trends

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Abstract: *This study explores the intricate landscape of Electric Vehicle (EV) adoption within contemporary urban transportation, focusing on a cohort of 50 participants. The research seeks to unravel the drivers and impediments that influence individuals' decisions regarding EV adoption. Utilizing a quantitative research design, the investigation encompasses demographic profiles, EV ownership prevalence, and intentions regarding future adoption. The results uncover a significant segment of participants who either possess EVs or harbor strong intentions to acquire them. Their motivation predominantly emanates from concerns about the environment and the prospect of achieving economic savings. Nevertheless, the study underscores the enduring apprehensions related to the accessibility of charging infrastructure. The quantitative analysis spotlights the pivotal role played by income levels in shaping intentions for EV adoption, underscoring the necessity for tailored financial incentives. Furthermore, the study emphasizes the compelling influence of environmental consciousness in propelling EV adoption. While recognizing the study's limitations, including the relatively modest and homogenous sample size, these insights offer valuable guidance to policymakers and stakeholders aiming to advance sustainable urban transportation. As the EV landscape evolves, the imperative emerges for strategies that address infrastructure challenges and customize incentives to appeal to a wider demographic. These approaches are indispensable for expediting the transition to electric vehicles and mitigating the carbon footprint in urban mobility.*

Keywords: electric vehicle adoption, urban transportation, environmental concerns, charging infrastructure.

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