Title: Predicting electric vehicles adoption: A synthesis of perceived risk, benefit and the NORM activation model

Author: Seen Yee Choo, Ali Vafaei-Zadeh, Haniruzila Hanifah, Ramayah Thurasamy

Abstract: The increasing popularity of electric vehicles (EVs) as an alternative mode of transportation aims to reduce greenhouse gas emissions and energy expenditures, playing a crucial role in the evolution of emerging mobility markets. This research investigates consumer perspectives on EV adoption using the perceived risks and benefits model and the norm activation model. Employing a survey-based methodology, data were gathered from 379 Malaysian respondents aged 18 and older, with valid driving licenses but no prior EV experience. The study utilized partial least squares structural equation modelling (PLS-SEM) to analyze the data. Key findings reveal positive associations between the intention to use EVs and factors such as perceived enjoyment, perceived benefit, trust, and environmental knowledge. Conversely, perceived risk and perceived cost were not significantly correlated with adoption intention. The study also found that awareness of consequences and the assignment of responsibility positively influenced personal norms, which in turn were linked to the intention to adopt EVs. The current study addresses the lack of research in Malaysia by focusing specifically on Malaysian consumers. Practical implications highlight the need for local policymakers and industry stakeholders to enhance awareness about EV advantages, improve marketing strategies, and support informed decision-making aligned with personal and environmental values. This research provides valuable insights into consumer perceptions of EV adoption in Malaysia, contributing to the global shift towards a greener automotive landscape.

Keywords: Electric Vehicles (EVs), Consumer Perspectives, Adoption Intention, Perceived Risks and Benefits, Norm Activation Model, Perceived Enjoyment, Environmental Knowledge

DOI: https://doi.org/10.1016/j.rtbm.2024.101183

https://www.sciencedirect.com/science/article/abs/pii/S2210539524000853