Understanding Youth Intentions to Adopt Electric Vehicles: Insights from Theory of Planned Behaviour and Technological Concerns

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Abstract

This study investigates Gen Z's intentions to adopt electric vehicles using the Theory of Planned Behavior framework, further examining the moderating role of technological concerns. A quantitative survey of 443 respondents measured their attitudes towards EVs, subjective norms related to EV adoption, perceived behavioural control over EV purchasing, and technological concerns regarding EV technology. Results reveal a significant positive influence of all three TPB dimensions—attitudes, subjective norms, and perceived behavioural control—on Gen Z's future EV buying intentions. Furthermore, technological concerns moderate these relationships, suggesting that while positive attitudes, social influences, and perceived control encourage EV adoption, these effects are tempered by anxieties surrounding EV technology. This research contributes to understanding the psychological and technological factors shaping consumer behaviour in the burgeoning EV market, particularly among young adults. The findings offer practical insights for policymakers and marketers to promote wider EV adoption among Gen Z.