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Purchase Intentions of Electric Vehicles: An Exploration of Trends, Theories and Determinants

Jagadish Timilsina[1]

[1]Department of General Management and Marketing, Boston International College, Bharatpur, Chitwan 44200, Nepal.

ARTICLE INFORMATION

Correspondence

jagdish.timilsina@bostoncollege.edu.np

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ABSTRACT

Global selection of electric vehicles (EVs) will market endurable motility and help in the lowering of greenhouse gas emissions. However, the consumption of EVs is being delayed by various factors, like consumer resistance, infrastructure lack, and technological limitations. This study connects a complete comprehension of an individual's behaviour and market scenario to the trends, theories, and factors that increase EV purchase intentions. To combine theoretical frameworks, such as the Theory of Planned Behaviour (TPB), the Technological Acceptance Model (TAM), and the Norm Activation Model (NAM), with empirical research, an integrative review of the various literature was conducted. To determine their impact on the adoption of EVs, several key factors were examined, including perceived behavioural control, financial incentives, social norms, environmental concern, and technological readiness. This review concentrated on consumer intentions of buying, which are affected by various related forces. A significant influence of concern towards the environment and control of perceived behaviour has been seen in EV selection, whereas incentives and cost considerations play a pivotal role in decision making. During the willingness to shift towards EV, technological readiness and social norms play a moderating part. This review focuses on the identification of gaps in existing research, particularly in mediating and moderating factors affecting EV adoption. Prioritisation in expanding the infrastructure of charging, incentives, and exploiting the influence of society to enhance EV adoption needs to be done by stakeholders and policymakers. Environmental benefits, technological advancements, and cost-saving marketing strategies need to be emphasised to appeal to diverse consumer segments. This study plays a part in the structural framework for understanding intentions of EV purchase, integrating behavioural theories and empirical findings. It provides applied understanding to governments, manufacturers, and marketers to transform the shift towards sustainable mobility.

Keywords: environmental concern, consumer behaviour, technological readiness, behavioural theories

Introduction

Significant changes have occurred in the automobile industry, shifting from conventional internal combustion engines to electrification (Ko, 2023; Shakya et al., 2024). Cars are consumer goods that need a large financial disbursement from individuals (McCarthy, 2007; Sobiech-Grabka et al., 2022). Customers carefully consider factors like technology, design, quality, brand, and marketing because of the significant investment needed (Ha, 2004; Kumar et al., 2015; Dhanabalan et al., 2018). Various examples of coming generation energy alternatives like plug-in hybrid, solar cell, and battery EVs have been part of this evolution (Slowik et al., 2016; Ehsani et al,2018; Angeline et al.,2020).

The transition to electric vehicles (EVs) is vital as the mobility sector is a main factor accountable for greenhouse gas discharge (Zhang et al., 2018). To prevent the increasing temperature of the globe, EVs play a pivotal role in decreasing exhale of carbon emissions, increasing the efficiency of energy, and providing different sources of energy (Bai et al.,2021; Yadlapalli et al., 2022; Alanazi, 2023). Various countries around the globe are developing targets to boost EV sales (Zang et al., 2022). Nevertheless, most of the studies have revealed that people are very much worried related to the effectiveness of cost and comfort in charging EVs, limiting its global consumption (Camilleri, 2024; Qadir et al., 2024). Governments are implementing an incentive model for increasing the appeal of EVs (Langbroek et al., 2016; Gong et al., 2020). The environmental concern and people's purchasing motives have increased by this model (Zameer et al., 2022). For example, this model is used by Chinese manufacturers in order to cover a large market share during the transition to EV (Ou et al., 2019; Zang et al., 2022).

Adding to this, an increase in EV use has been attributed to other elements. In addition to the EVs (Sierzchula et al., 2014), vital elements such as consumer characteristics (Broadbent et al., 2021a; Broadbent et al., 2021b; Sheng et al., 2022), income (He et al., 2023), education (Bindhya et al., 2025), and environmental awareness (Mohiuddin, 2018) can be incorporated. Factors like fuel prices and electricity rates can also impact EV consumption (Coffman et al, 2017; Leard et al, 2023). Different studies performed in previous days focused entirely on the cause or effect of EV consumption, with comparatively low attention paid to the factor of moderation and mediation. (Adnan et al., 2017; Kumar & Kumar, 2019; Singh et al., 2020). The Complex attributes examination of the EV market and the integration between these factors are essential (Kumar & Kumar, 2019; Chen et al.,2020; Yang et al., 2022).

Although there is availability of various research, identifying the factors responsible for purchase motive, basically in countries like Nepal, remains a major issue. So, this review study will deal with showing the forces of purchase intention, concerning EV purchase. This methodology involves a mixed review of different literature focusing on forces that affect EV adoption. According to Kumar and Kumar (2019), the mixed review process reveals the limitations of surveys and studies done by the panel by focusing on a mass perspective on EV selection.

Trends, Theories and Determinants Related to EV

Trend in Electronic Vehicles

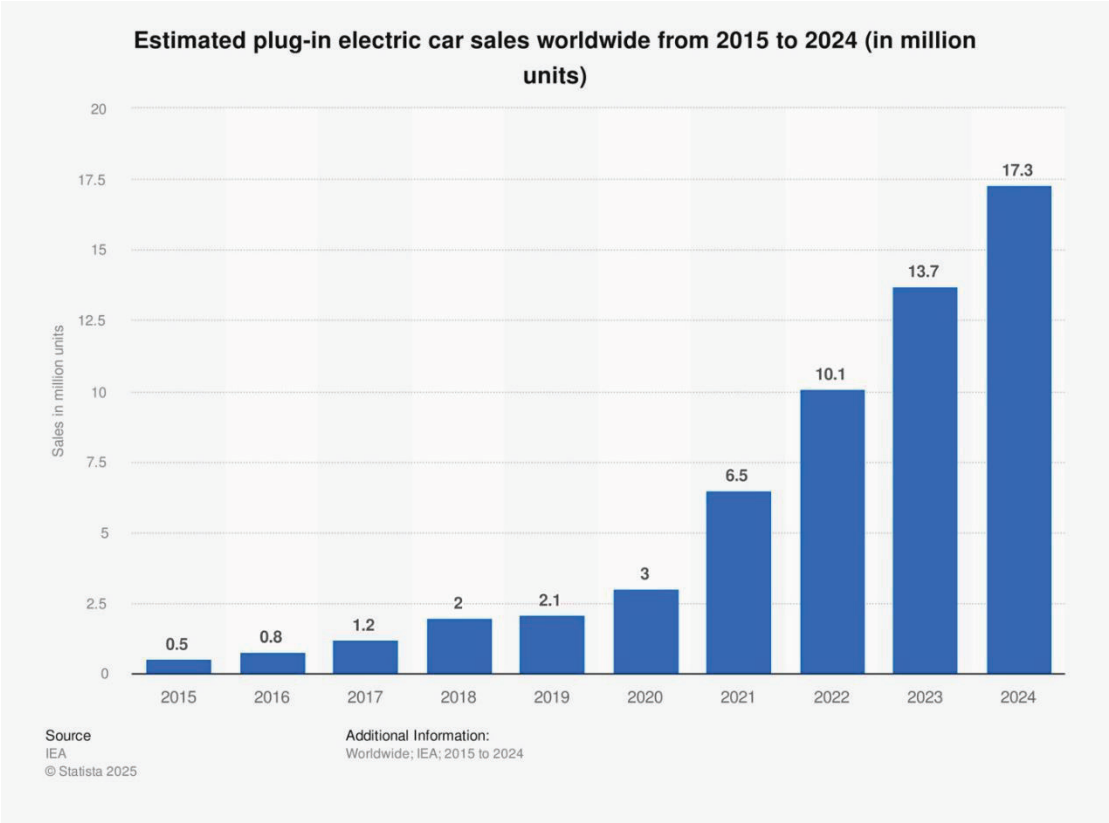
A quick and major increase in EV selection has been observed, dealing with different factors such as concern towards the environment, advancements in technology and support provided by policy (Zaino et al.,2024). Utilisation of academic and industrial research data in the review process focused on rapid advancement of EV selection, technology related to battery and development of charging facilities (Veza et al., 2024). With efficient energy and the capacity to decrease carbon emissions, EVs have become crucial in reducing carbon levels in transportation and sustainable urban areas development (Zhao et al., 2015; Amini et al., 2017). The adoption of several technologies related to EV has accelerated, particularly in the automobile sector, like fuel cell, plug-in hybrid and battery EV models (Singh et. al, 2021). Displacement of conventional IC engine vehicles sooner rather than later will occur with these alternatives, as predicted by the experts (Ntombela and others, 2023).

The influence of various factors such as Consumer preferences (Jagani et al., 2024), technological advancements (Sierzchula et al., 2012), and concerns toward the environment (Smith et al., 2008) has changed the dynamics of the automobile industry. Along with the rise in consumption of EVs and a

decrease in conventional ICEVs consumption, the global market is making significant steps towards a green commuting solution (Muratori et al., 2021). Due to reducing capabilities in carbon footprint and lower dependence on fossil fuels, EVs, depending on rechargeable batteries, are gaining attraction and position in the market, making them the future of sustainable transportation (Kashem et al.,2024). Global EV sales have skyrocketed (See Figure 1), with further predictions indicating that electric vehicles will lead the automotive market by 2030 (Marzouk, 2023). Adoption of EVs has sprinted with the government implementation of subsidies and mandates for zero-emission vehicles (Sierzchula et al., 2014; Sykes et al., 2017). Strict emissions regulations fueled EV market penetrations in major countries and regions such as China, USA and the European region (Evro et al., 2024 However, significant starting expenses continue to present the challenge in emerging economies (Rezvani et al., 2015).

Figure 1

Global EV Sales



Source: IEA Statista 2025

Research focused on developing energy density, efficiency in charging and sustainability has enabled lithium-ion batteries to lead the EV market (Tarascon et al. 2001). Solid-state batteries encountered various hurdles in commercialization, although offering greater safety and energy capacity (Janek et al., 2023). For minimisation in environmental impact, there is a significant increment in the consumption of recycled and repurposed batteries (Harper et al., 2019). Insufficient charging stations have been a great obstacle in the global embrace and adoption of EVs (Gnann et al., 2018). Emergence of wireless charging and battery swapping technologies like Tesla's superchargers has complemented rapid expansion of the fast-charging network (Jiao et al., 2021). For the enhancement of energy efficiency, testing related to the combination of updated grids and vehicle-to-grid (V2G) is undergoing (Sovacool et al., 2020). Driving range, upfront costs and lack of charging infrastructure are the matters of concern for consumer hesitation in adoption of EV (Egbue & Long, 2012). According to Funke et al. (2019), the Promotion of greater adoption of EVs is influenced by education and constructive peer. Early adopters like the corporate community and ride-sharing services have enhanced confidence in the market (Hardman et al.,2019).

Theories on Purchase Intention

Various studies related to factors affecting consumer acceptance have been examined due to an increase in EV interest as a durable transportation (Stockkamp et al., 2021). It is encountered that various theoretical models are developed for better comprehending the fundamental processes that either encourage or hinder EVs' acceptance (Rezvani et al., 2014). The availability of various theories, such as the Diffusion of Innovations theory (Asadi et al., 2020), the Unified Theory of Acceptance and Use of Technology (Sang & Bekhet, 2014; Asadi et al., 2020), the Technology Acceptance Model (Koul & Eydgahi, 2017), the theory of planned behaviour (He & Zhan, 2017), and the Norm Activation Model (Rezvani et al., 2014) has made the examination much more convenient. As per He & Zhan (2017), one of the conventional methods used for determining the intentions and behaviour of the buyers is the Theory of Planned Behaviour (TPB). The direct predictors of behaviour influencing intentions of behaviour are perceived behavioural control, subjective norms and attitude as suggested by Asadi et al. (2020). Attitude is a person's evaluation of the likelihood of switching to EVs (Asadi et al. 2020). The perceived pressure from society will give rise to either adopting or giving up EVs can be reflected as subjective norms (Asadi et al., 2020). Individual thoughts regarding simple or tough to switch to EV are influenced by forces like the availability of charging stations, is the scenario of perceived behavioural control (Asadi et al., 2020). Outlook plays a crucial role in the desire to consume EVs as per the research based on the Theory of Planned Behaviour (Asadi et al., 2020).

Technology Acceptance Model, the primary drivers of technology adoption focus mainly on perceived utility and serviceability (Koul & Eydgahi, 2017). The tendency of people to believe that switching to EV will improve their performance or results is perceived usefulness. The tendency to which consumer think that using an EV is much easier can be termed as perceived serviceability (Koul & Eydgahi, 2017). Based on their degree of innovation, individuals are grouped as innovators, early adopters, early majority, late majority, and stragglers using the Diffusion of Innovations framework (Asadi et al., 2020). Early adopters are essential for the growth of EV uptake since they encourage the early majority to accept the technology, as suggested by this model (Asadi et al., 2020). Innovation Diffusion Theory, the Technology Acceptance Model (TAM), and the Theory of Planned Behaviour (TPB), being aspects of several earlier models, are combined in the Unified Theory of Acceptance and Use of Technology (Asadi et al., 2020). As per UTAUT, influence in society, expectancy in performance, expectancy of effort, and coordinating circumstances are some of the forces that affect people's intentions and technological use (Sang & Bekhet, 2014). According to Rezvani et al. (2014), moral and ethical standards affected by sustainable behvior are shown in the Norm Activation Model. Analysis of EV being eco-friendly, decreasing the environmental harm, the NAM, through the lens of sustainable behaviour provides knowledge into consumer acceptance (He & Zhan, 2017).

Determinants of EV Adoption

EV selection is guarded by various connected force; one major factor is environmental concern, where individuals who are committed to sustainability are more likely to select EVs instead of traditional means for their major environmental benefits (Li et al., 2022). The next important factor is perceived behavioural control, which mirrors confidence of an individual in their capacity to run and maintain an EV, affecting their eagerness to accept the technology (Rezvani et al., 2015). Incentives related to finance, such as subsidies from the government and taxation ease, aligning with the major savings on fuel and repair or maintenance, make EVs convenient to individuals (Sierzchula et al., 2014). Social norms can also play a. major role, as decisions are mostly affected by societal attitudes and partners' influence (Manca et al., 2020). Next, perceived innovativeness- how open an individual is to accept new technologies-enhances the acceptability part of EVs (Singh et al., 2021). Technology readiness or trust that EVs are genuine and that enough infrastructure exists to help them can be crucial during the EV purchase decision (Singh, 2025). These forces integrative support the speed and range of EV adoption, considering that law and policymakers, as well as manufacturers, need to address economic, social and technical challenges to increase wider individual acceptance of electric mobility.

Environmental Concern

Challenges related to the environment, like pollution in the air and change in climate, have come to light, due to which there increment EV selection interest as a sustainable method of commuting (Huang & Ge,

2019; Samarasinghe et al., 2024). EVs are viewed as a mode of decreasing carbon footprint and facilitate in creating a cleaner world by the customers who are environmentally aware (Wang et al., 2017). This level of motivation stems from the realisation that EVs can abundantly decrease overall greenhouse gas emissions and create no tailpipe emissions when backed by renewable energy (Huang & Ge, 2019 Thus, environmental concern tends to be a major force in predicting and comprehending mass acceptance of EVs (Wang et al., 2017).

Table 1

Purchase Intention of Electric Vehicles under Environmental Concerns

Author & Year	Methods	Findings	Recommendations
Wang et al. (2017)	Empirical analysis in China	Major impact of environmental concern in intentions of EV purchase; however, feeling about policies related to EV is mediating factor	Policy measures lining with environmental concern will help in EV adoption
He and Zhan (2017)	Empirical study in China	Environmental concern is moral requirement influencing EV adoption	Financial incentives availability to enhance EV adoption
Huang and Ge (2019)	Purchase intention in individual at Beijing	Reduction in exhaust gas emissions, atmosphere improvement, and reducing gap between fuel supply and demand is major role of EV development	Promotion of environmental awareness, subsidies and perks of driving and expansion of charging infrastructure can be major support for purchase of EV
Lai et al. (2015)	Empirical Study at Macau	Intention of purchasing EV is formed by perceptions and affected by concerns of environment and policies	Government should raise awareness, implement polices and give long-term support for promoting low-carbon transport
Okada et al. (2019)	EV purchase intention and satisfaction in Japan	EV adoption is affected by consciousness toward the environment.	Focus benefits to environment during marketing via using eco-labeling to convince eco-conscious individuals

The assessed literatures in Table 1 indicates that individual's plan to buy EVs are beneficially affected by environmental issues (Lai et al., 2015; Okada et al., 2019; Wang et al., 2017 Individuals worried and informed about challenges to environment tends to have constructive view toward EVs and become more willing to purchase one, according to Wang et al. (2017). According to Lai et al. (2015), an increase in understanding of environmental concerns and enhancing the EVs' benefits to public can be a good way to market their consumption. The environmental concern effect can be increased by various considerations such as moral norms, policy measures and perceived consumer effectiveness (He & Zhan, 2017; Wang et al., 2017). The extensive strategy, which combines environmental education along with favourable directives and motivation, is vital to accelerate the transition to electric transportation

Perceived Behavioral Control

PBC is embedded in the TPB, which focuses on a person's evaluation of how tedious or achievable a concerned behaviour is (Şimşekoğlu & Nayum, 2018; Yeğin & Ikram, 2022). PBC consists of the

effectiveness of cost, technological expertise of EV, charging station access, and EV maintenance (Yeğin & Ikram, 2022). According to Ivanova and Moreira (2023), possession of the resources, opportunities and capacity required to convert to an electric vehicle result in higher PBC. The editor's document asserts that the TPB posits that PBC is a crucial force in deciding the uptake of EVs because, in conjunction with attitude and internal norms, it has a direct effect on intentions.

Table 2

Purchase Intention under Perceived Behavioral Control

Author & Year	Methods	Findings	Recommendations
Ivanova and Moreira (2023)	Systematic Literature Review	EV purchase intention is significantly and positively predicted by PBC.	Policies pertaining to EVs must be designed to increase consumer interest in buying an EV.
Yeğin and Ikram (2022)	Empirical analysis (expansion of TPB)	PBC significantly and favorably influences intentions to purchase electric vehicles.	Enhance perceived behavioral control by improving EV accessibility and ease of use to boost purchase intentions.
Zhang et al. (2018)	Questionnaires in Beijing	The main element that positively contributes to the acceptance of EV sharing is PBC.	Offer more easily available resources (service station, charging facility).
Şimşekoğlu and Nayum (2018)	Application of Planned Behavior	Especially the attitudes in the TPB were important predictors of the intention to EV adoption	Focus on shaping constructive attitudes to strengthen adoption
Atiyah and Kusumawati (2023)	Survey in Indonesia	behavioral control influences the purchase intention of hybrid car	Improve individuals' sense of control by enhancing access, affordability, and support for hybrid car ownership

The examined literature in Table 2 suggests that an individual's choice for embracing EVs is heavily impacted by the sense of perceived control of behaviour (Ivanova & Moreira, 2023; Yeğin & Ikram, 2022). Research utilising Planned Behaviour theory (Şimşekoğlu & Nayum, 2018) has continuously featured that PBC is a major force affecting the intention of buying and acceptance. To minimise the obstacles perceived and the confident embrace of EVs by customers, a strong sense of PBC is required (Yeğin & Ikram, 2022). Improvement of PBC can be done with the incorporation of factors as the effectiveness of cost, infrastructure availability for charging and supportive government policies (Zhang et al., 2018). Enhancement of infrastructure in the charging sector, information dissemination, and financial incentives provisions highly encourage EV adoption are the major strategies that boost PBC (Ivanova & Moreira, 2023).

Financial Incentives and Cost Considerations

As the initial cost of EV is greater than the conventional automobiles, there is much requirement of financial incentives influencing individuals' decisions (Wang et al., 2017, 2018). Decrement in purchase price and increment in EVs accessibility initiated by financial incentives include aspects such as direct

grants, rebating of tax, and registration fee reductions. (Stopka et al., 2025). In association with initial cost, consumers take into consideration the long-term expenditure linked with ownership, like fuel, maintenance and insurance (Ivanova & Moreira, 2023). To enhance EV adoption, a rigorous knowledge of cost factors and incentives related to finance is crucial.

Table 3

Purchase Intention of EV under Incentives and Cost Considerations

Author and Year	Methods	Findings	Recommendations
Wang et al. (2017)	Empirical analysis in China	Financial incentives highly influence consumers' intention in EV adoption	Policy measures should consider consumers' cost concern for encouragement of adoption
Ivanova and Moreira (2023)	Systematic Literature Review	Economic benefits like subsidies and lower costs with increase purchase intention	Government should offer subsidies and cheaper electricity compared to fuels to enhance EV appeal
Wang et al. (2018)	Empirical Study	Consumers' eager to adopt EV lowering the overall expense can be boost by financial incentives	Introduction of financial support to reduce and enhance EV adoption
Stopka et al. (2025)	Review	Making affordable new models using government subsidies can increase interest in EV.	Provision of subsidies to decrease cost of EV and enhance consumer interest.
Ogunkunbi et al. (2021)	Review	Tax breaks and incentives related to purchase are important for enhancing EV purchase.	Offering of financial incentives by government to sync society, markets and policy goals.

The literature in Table 3 demonstrates that intentions of individual to seek EVs are constructively impacted (Lai et al., 2015; Okada et al., 2019; Wang et al., 2017). Wang et al. (2017) claims, Consumers who are worried and informed of challenges related to environment likely to have good attitude in EVs and are motivated to buy them. According to Lai et al. (2015), increasing awareness of the environment and emphasising EV advantages can be a successful way to market their expansion. Nevertheless, other factors as policy measures, ethical considerations and perceived consumer effectiveness will less decrease the impact of environmental concern (He & Zhan, 2017; Wang et al., 2017). This will result in speeding up the shift to electric mobility, necessitating a holistic strategy that combines environmental education with supportive laws and incentives.

Social Norms

Social norms, which informal rules and expectations within a group that will strongly enhance individuals' choices, including the shift to electric vehicles (Sparkman et al., 2020). These norms can be descriptive, as what others do or injunctive, as what others approve (Horne & Familia, 2021). When the usage of electric cars becomes more prevalent and obvious in a community, a social norm that inspires others to do the same may be established (Rezvani et al., 2014). Moreover, early adopters and influential people can further influence social norms regarding electric cars, making them a more appealing and acceptable option in society (Jansson et al., 2017; Zhao et al., 2024).

Table 4

Purchase Intention of EV under Social Norms

Author and Year	Methods	Findings	Recommendations
Sparkman et al. (2020)	Review	If properly applied, social norms will both be a strong factor for positive change and a barrier to climate change. Positive actions encouraged by dynamic norms are information about how others have changed or trends in norms over time.	Use dynamic social norms to promote positive behavioral shifts toward EV purchase
Barth et al. (2016)	Empirical study based in Germany	The acceptance of EVs is predicted by social norms. Another crucial factor is collective efficacy, which is the conviction that teams of people can effectively complete tasks.	promoting social norms that support electric vehicle (EV) use and fostering collective efficacy by encouraging community efforts to adopt EVs
Jansson et al. (2017)	Systematic Study in Sweden	Adoption of eco-innovation, including EVs, is significantly influenced by personal norms, opinion leadership, and opinion seeking.	leveraging individuals' norms and engaging opinion leaders to encourage eco-innovation adoption like EVs
Dash (2020)	Literature Review	Green behavior, including the adoption of EVs, is influenced by subjective norms.	strengthening social expectations to promote green behaviors such as adoption of EV
Zhang et al. (2018)	Systematic Study in Beijing	EV acceptance sharing is significantly positively impacted by subjective norms.	Increase social pressure (sharing environment, free trial). strengthen policy support (financial backing, legal assurance).

The reviewed literature in Table 4 indicates that electric vehicle adoption is mainly affected by social norms (Barth et al., 2016; Dash, 2020; Jansson et al., 2017; Sparkman et al., 2020; Zhang et al., 2018). As electric vehicles gain popularity and acceptance in a community, the social pressure to adopt them increases (Zhao et al., 2024). Focusing on early adopters and changing norms can lift electric vehicle adoption (Jansson et al., 2017; Sparkman et al., 2020). Policies that increase EV use can help to reinstall social norms and create a climate that is acceptable to their widespread consumption (Zhao et al., 2024).

Perceived Innovativeness and Technology Readiness

Perceived innovativeness deals with a person's ability to receive new innovations or technologies (He et al., 2018). Consumer with high innovation tends to will or adopt new things and are inclined to accept EVs (He et al., 2018; Rezvani et al., 2014). On the other hand, technology readiness deals with a person's overall propensity to consume and accept new technology, taking into consideration both viewpoints, either positive or negative viewpoints (Lam et al., 2008). As per the Technology Acceptance Model, an individual's choice to accept current technology can be highly affected by their perception of it (Hamidu, 2017). A general understanding of these variables is vital for generating effective marketing of EVs and their advertising campaigns.

Table 5

Purchase Intention of EV under Perceived Innovativeness and Technology Readiness

Author and Year	Methods	Findings	Recommendations
Ivanova and Moreira (2023)	Literature Review	Personal inventiveness with openness to new experiences has a significant impact on intentions.	targeting individuals with high creativity and openness to new experiences to boost intentions
He et al. (2018)	Empirical study	Intention of EV purchase is positively impacted by personal innovativeness; innovative people are proactive information seekers and quickly see the advantages of new developments.	focusing on innovative individuals who actively seek information to increase intention in EV purchase
Chao et al. (2021)	Focus on actual adoption behavior	Instead of concentrating on purchase intention, the study examines how personality traits influence consumers' actual adoption behavior of electric vehicles.	considering personality traits to better understand and promote actual EV adoption behavior
Lam et al. (2008)	Empirical analysis	Innovativeness and optimism increase technology adoption, while insecurity reduces it, with stronger effects in high-risk usage contexts	Target tech-ready users, reassure insecure consumers, and adapt offerings to risk levels
Moore and Benbasat (1991)	Development of an instrument	Measuring how potential adopters perceive technology is necessary to integrate the various findings of diffusion research.	Match tech offerings to user readiness & reassure skeptics, empower enthusiasts

As shown in Table 5, perceptions of innovativeness and technological readiness act as a main role in electric cars adoption (He et al., 2018; Ivanova & Moreira, 2023). According to He et al. (2018), more creative and receptive customers to new technologies are likely to think about and buy EVs. For the promotion and widespread EV use, it is necessary to understand how potential adopters feel about and view new technologies (Moore & Benbasat, 1991).

Proposed framework for EV adoption

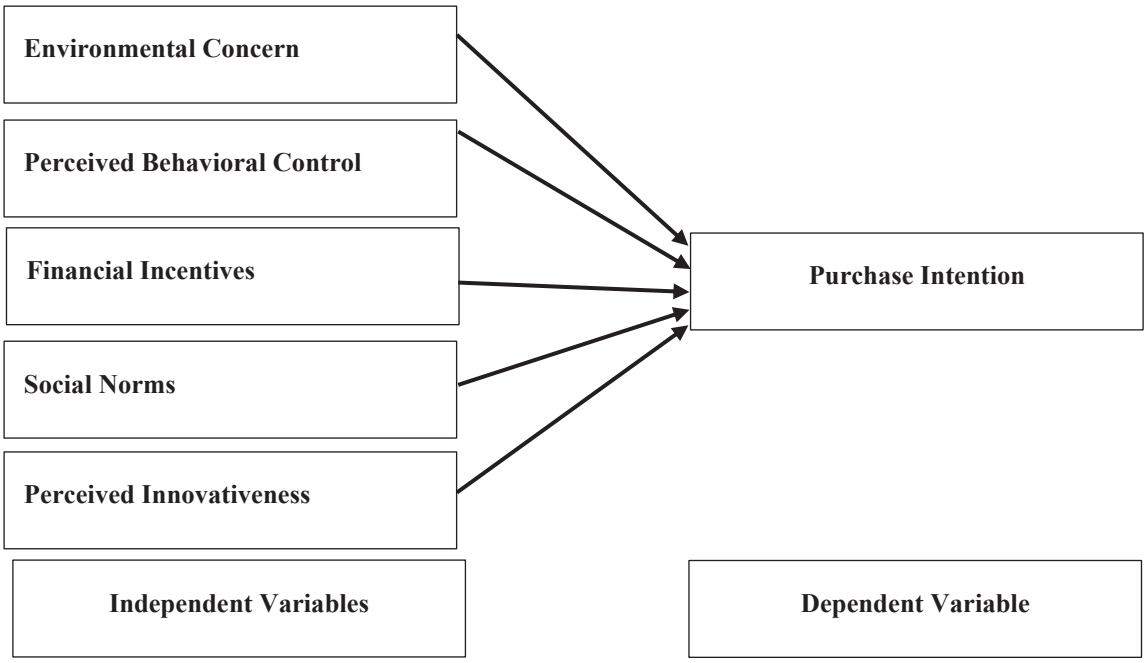
The results in the above review table deal with the major forces influencing the EVs' uptake. Three major groups can be formed based on the factors: financial rewards and cost considerations, social norms, and perceived innovation and technological readiness; however, environmental concern (Kim et al.,2018) and PBC (Khazaei et al.,2021) can be considered as moderators or as the factors themselves. The above studies reveal that social norms have a major effect on the EVs uptake (Kumar & Kumar, 2019). There is a propensity for social pressure to adopt electric automobiles due to their high prevalence and acceptance in the community (Kanger et al.,2019). Opinion leaders and those who heavily seek EVs are the main influencers for the uptake of eco-innovativeness like electric cars (Jansson et al.,2017). Subjective norms tend to have major effect towards conscious behaviors towards environment like adoption of electric automobiles (Wang et al.,2016). EV adoption can be boosted by utilising social influence techniques such as dynamic norms and early adopters (Sovacool, 2017). Polices promoting EV

utilisation could help to develop social norms and create an atmosphere that supports their mass adoption (Bakker et al.,2013).

Perceived innovativeness and technological readiness can significantly influence EV adoption as per the literature review (Salari, 2022). According to Sierzchula et al. (2014), if individuals perceive EVs to be innovative and available to new technology up taking, they will have an interest in them and buy them. Creativity and openness to new experiences in consumers will enhance their desire to buy new electric vehicles (Irfan, 2021). Perceptions and feelings related to new technologies understanding in potential buyers are crucial to motivate the mass uptake of EVs (Featherman et al., 2021). However, incentives related to finance and concerns about cost affect the person's decision to convert to electric cars (Sierzchula et al., 2014). Incentives provided by the government, recurring and upfront buying costs are the major factors that need to be considered in EV uptake (Mohammadzadeh, et al., 2022). Different studies focusing on the adoption of EVs as a mobility unit have created similar results. For example, Coffman et al. (2017) and Singh et al. (2020) mention a significant increment in research activities over the past decade on forces affecting EV acceptance.

Figure 2

Proposed Conceptual Framework for Purchase Intention of EV



The results obtained from the review of literature have shown the complex relations and association among the forces affecting the EVs uptake. The findings from the literature review show that to enhance the EV uptake, a combination of different strategies is essential (Bakker et al., 2014; Kumar & Kumar, 2019). These strategies include action to address the questions generated from social norms, new client attractions and provision of financial incentives (Haddadian et al., 2015). The results obtained will be essential for legislators to formulate new rules focusing on the upliftment of EV utilisation (Rietmann et al., 2019). Initiatives such as early adopters focus, operation of an awareness campaign in public and making the provision of financial incentives will lead to changing the perception of the public (Santos et al., 2020).

The conceptual framework (see figure 2) has been constructed through a comprehensive review of literature and can serve base for further research. Even then, the review of various literature was performed for an individual case. Onat et al. (2022) suggested that further research is crucial for

addressing the shortcomings of the methodology, including the future scope of the literature review and potential bias in the publication selection. Further future research may use more systematic approaches for selecting papers and, as Pandita et al. (2024) suggest, do deeper analyses of the methodologies used in papers adopted for review, and expand the area of the literature review to reduce bias.

Conclusion

Switching to EVs is not just a choice, it is a necessity in today's world. Change in climate, an increase in pollution and a decrease in fossil fuel demand have put the world to stand in a critical juncture. The way we select today will define the future of our planet and the next generations. EVs symbolize far more than a technological innovation; they symbolise an integrated commitment to a cleaner and healthier environment, quieter cities and a long-lasting future. Although EVs are environmentally and economically friendly, their mass adoption remains elusive, challenged by gaps in infrastructure, hurdles in the economy and inertia in behaviour.

This review paper focused on the powerful forces that construct individuals' intentions, diverging from financial considerations and policy incentives to social influence, availability of infrastructure, and readiness of technology perception. By developing insights from the established models of behaviours like the Theory of Planned Behaviour, Technology Acceptance Model and Norm Activation Model, it has become evident that the shift toward EVs is not simply a matter of accessibility or affordability- it is deeply rooted in perception, motivation, and trust. But there is the presence of immense and intense hope. The world is already witnessing a gradual shift in global mindset. Environmental awareness is growing, legal and policy frameworks are strengthening, and technological barriers are progressively vanishing. With each new charging station constructed, subsidy granted, and awareness campaign started, EV adoption became more widespread.

The road ahead demands consistent commitment. The main steps that lawmakers and policymakers need to take are investing in consumer education, reducing financial burdens, and expanding charging infrastructure. For innovative vehicles to combine efficiency and strong emotional appeal for consumers, automakers must pursue meaningful innovation. Change agents, such as educators, influencers, and environmentalists, have the power to alter social norms and promote EV ownership as a sign of accountability and advancement. Every person ought to have faith in their ability to shape their own destiny. Choosing an EV is a sign of courage, vision, and values; each path shows a dedication to moving forward and eschewing hesitation in favor of progress.

In this global movement, Nepal, as an emerging economy, can hold a unique capability. Nepal can enter an eco-friendly era without making the same mistakes as highly industrialized models if it aligns with the policies, market readiness, and consumer awareness. By clearly utilizing regional trends, behavioral patterns, and technological advancements, ongoing research should clear the way. The move to electric vehicles is more than just a change; it is a planned revolution in business, society, and ultimately the planet Earth. We are at the edge of a mobility revolution which offers cleaner air, stronger economies and more empowered communities. So, we need to move this transition forward as not tomorrow or someday, needs to be done by today. This path is long and can have many hurdles, but the achievement is worth every mile: a sustainable, equitable and electrified world.

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