RedFame

Studies in Media and Communication
Vol. 13, No. 3; September 2025
ISSN: 2325-8071 E-ISSN: 2325-808X
Published by Redfame Publishing
URL: http://smc.redfame.com

The Influence of Social Media Platform Advertising on Consumer Choices: The Case Study of Electric Vehicle Innovations in Malaysia and China

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Received: April 24, 2025 Accepted: June 21, 2025 Online Published: June 27, 2025

doi:10.11114/smc.v13i3.7790 URL: https://doi.org/10.11114/smc.v13i3.7790

Abstract

The present study focused on Electric Vehicles (EVs) and their role in sustainable forms of transportation, along with the importance of the Asian markets, specifically Malaysia and China are viable regions for electric vehicles. The theoretical framework of this study explained relevant theories, including the Diffusion of Innovations Theory and the Theory of Planned Behavior, that highlight how these concepts will be used in analyzing the impact of social media advertising on EV perceptions and consumer behaviour. The methodology was focused on conducting qualitative research in the form of extensive content analysis. The findings suggest that social media platforms such as Facebook and WeChat aid in the construction of a mindset for reflecting an optimistic viewpoint about electric vehicles as an alternative to oil-based traditional cars. This approach focuses on social media posts, comments, likes, and shares collected from social media platforms popular in Malaysia and China, such as Facebook and WeChat. Therefore, this study contributed to the content analysis of the retrieved data on consumer perceptions and interactions with electric vehicle (EV) content and presented them in the context of Malaysia and China.

Keywords: Electric vehicle (EV), social media platforms, advertising, consumer choices, perceptions, Chinese EV market, Malaysian EV market, The Diffusion of Innovation Theory (DIT) , The Theory of Planned Behaviour (TPB)

1. Introduction

Background of the research

Electric vehicles and their role in sustainable forms of transportation, along with the importance of the Asian markets, specifically Malaysia and China, are viable regions for electric vehicles. Malaysia is seeking the advantages of electric mobility in order to fulfil the emission target, which is drawn from the commitment to reach net zero by 2050 and accelerate the energy transformation of the nation (Shahrilmd., 2024). Following this, China consumed half of the market share in the global electric vehicle with over 3.2 million electric vehicles sold in 2023 and China's e-vehicle market is anticipated to reach US $ 377.4bn with a steady annual growth rate of 2.51% from 2025 to 2029 (He et al., 2022; Paddison & Nilsen, 2025; Statista, 2024). According to this information, the market for electric vehicles has been soaring in the Asian economies of China and Malaysia at a faster pace. China, being one of the highest contributors to electric vehicles in terms of production, might need more ways to engage buyers for the equitable distribution of the produced vehicles. This has the potential to transform the market for the adaptation of electric vehicles in the energy-scarce world. This highlights the significance and need of social media in contemporary customer behaviour and the investigation of its impact on the EV industry. The primary objective of this research is to understand the influence of advertising on social media platforms on consumer perceptions and decisions related to EV innovations between the two nations.

Social media platforms such as Facebook and WeChat aid in the construction of a mindset for reflecting an optimistic viewpoint about electric vehicles as an alternative to oil-based traditional cars. Alvalin and Sugiarto (2024) demonstrate that social media transforms the ways in which people socialise, communicate, and express, which leads to the formation of social networks, news sharing, interactivity, and so on. This shows that social media plays a crucial role in the construction of the perception of people in the context of the presentation of the content. In the specific context of electric vehicles, the generation of interest towards the influence on consumer choices depends on the hammering of the viewpoints through social media handles. Since carbon emissions are one of the crucial contributors to climate change

having an impact on the environment, economy, and health stability, electric cars present a viable option in terms of renewable innovations providing instant torque, operation in quiet, and production of zero carbon (Ahmad & Zhang, 2020; Flowers et al., 2022). This has demonstrated that Considering the environmental condition and backdrop of the increasing global warming along with the detrimental reserves of fossil fuels that cater to the increasing population, it is crucial to create alternative and viable solutions for transport. On the whole, it can be said that electrical vehicles are crucial for the sustainable conservation of remaining fossil fuels while giving a robust alternative with zero carbon emission and operations in silence.

1.1 Significance of the Research

The significance of this research lies in the inclusion of the two theories, the Diffusion of Innovation Theory (DIT) and the Theory of Planned Behaviour (TPB), in mapping the influence of social media platform advertising on the choices and perceptions of consumers. Green attitude is based on the values, beliefs, and attitudes which influence the general audience to take responsibility for the preservation of the environment through the minimum use of harmful products (Shi et al., 2023). In this regard, Sohaib et al. (2022) acknowledge that the development of green attitudes can create detrimental effects on the environment to elevate the positive trend for governments along with communities, organizations, and countries to propagate sustainable development. This reflects the importance of social media platforms in setting the narrative for not only individuals but also organizations, communities, and governments. Governments, such as China and Malaysia, can propagate the use of electric vehicles using the theory of planned behaviour with the active use of social media platforms, along with other strategies such as subsidies and trust-building attitudes. Following this, the incorporation of two theories provides substantial coverage of the ways of understanding the possible effect of the influence of social media posts, comments, and replies to investigate the usage of electric vehicles. Additionally, this research runs the qualitative content analysis methodology with the thematic distribution of the found themes during the analysis of the social media posts, comments, and likes on Facebook and WeChat in the countries of China and Malaysia. This gives a clear understanding of the reliance of social media influence on the perceptions and choices of consumers, along with the electric vehicle innovations between China and Malaysia. On the whole, the data collected from the posts will be analysed using thematic analysis to observe the consumer reactions and perceptions to be developed as themes to reach the research outcome.

1.2 Research Questions

The research questions for this study are as follows:

1. In what possible ways do social media advertising channels influence the choices and perceptions of consumers in the adoption of electric vehicles?
2. What is the impact of social media advertising on the electric vehicle innovation between the countries of China and Malaysia?
3. What are the strategies used by the social media advertisement groups to create green attitudes in larger masses in the developing economies of China and Malaysia?
4. What is the need for the propagation of electric vehicles in Asian economics considering the demography of the Chinese and Malaysian communities?

2. Literature Review

Understanding the need of EV adoption in Asian countries

The elevating global warming and the threat of carbon emissions recreate the need for the adoption of alternative options such as electric cars. Electric cars are vehicles which use electric motors with rechargeable batteries as the main power sources for acceleration rather than internal combustion using fossil fuels (Alvalin & Sugiarto, 2024). This shows that electrical vehicles have scientific manufacturing, which deflects from the conventional ways of internal combustion of fossil fuels to zero emission of carbon using rechargeable batteries. The Global EV Outlook report published by the International Energy Agency states that Internal Combustion engine vehicles (ICE) powered by Lithium Ion (Li-ion) batteries prominently reduce carbon emissions and dependency on fossil fuels (IEA, 2024). This can be seen in the data that 50 million tonnes of CO2 emissions were prevented in 2022 (IEA, 2024). This indicates that the use of Lithium-ion batteries can substantially decrease CO2 emissions and direct dependency on fossil fuels, which are substantially reduced due to the pressures of population, resource management discrepancies, and urban expectations of motorization.

The context about the use of e-vehicles might differ based on several aspects, from geography, economy, societal beliefs, and political efforts in the adoption of alternative fuel-based systems for travelling. Batur and Koç (2017) describe travel demand management, which is an action, policy, or strategy, which influences the travel behaviour of people, where the travel demand is reduced or redistributed in time or space with alternative mobility options without compromising on the needs of the travel. This shows that the travel demand is redistributed to the preference from the

conventional mode of travelling based on fossil fuels to electric vehicles. These alternative travelling systems are focused on the fulfilment of travel needs without compromise. Following this, several studies have been conducted in developed countries to direct that various factors from general intentions, problem awareness, perceived benefits, and impact of measures on environmental beliefs are politically feasible (Batur & Koç, 2017). In this context, Batur and Koç (2017) conducted a study on the developing economy of Istanbul, where the investments in public transport and road infrastructure are unsatisfactory to manage the pace of increasing demand due to the population and motorisation. This study is focused on the developing economy of Istanbul, which adjusts to the geographical, economic, and cultural context of the society in the region. The development of the narrative about green energy might be difficult in countries with low economic resources with disproportionate elevation in the population. On the contrary, high battery costs, distress about the battery lifespan, and insufficient charging infrastructure are some of the prominent challenges which are altering the widespread adoption of EVs (Meszaros et al., 2021). However, this narrative can be challenged by the increasing investment efforts to rectify the scarce infrastructure, higher production for cutting costs, and so on. Therefore, developing countries in Asia can use the influence of social media advertisements in the area of addressing the issues of conventional polluting agents through fossil fuel-based motors.

2.1 Analysing the Influence of Social Media Platforms in Consumer Choices and Perception

Societal progress in the mindset generation can be heavily influenced under the auspices of social media advertisements, posts, and comments. Almansour (2022) claims that digital technological upgradation in recent years has not only linked societal progress and technology but also expanded the interpretation of development, which incorporates sustainability and well-being. This shows that the technological upheaval with the upgradation in the process of globalisation is aiding in social development in terms of cultural adoption. This cultural and social malleability regarding sustainable development mindset in people can be gained through the use of social media channels. This study conducts a content analysis of 32 qualitative responses, which results in the consumers adopting e-vehicles due to the consideration of the impact the environmental concerns, digital features, and financial considerations (Almansour, 2022). This demonstrates the confluence of factors from digital influence to environmental concerns in the process of adoption of e-vehicles. Following this, Ziyadin et al. (2019) assert that social media is used for the purpose of advertisement, and building reputations since young people are comparatively easier to get influenced by social media, considering their purchase behaviour. Moreover, Sun and Wang (2020) denote that social media influences green purchases, that is, there is a positive correlation between environmentally friendly products and consumer buying behaviour. According to this overview, it can be said that the growing use of social media channels Facebook, WeChat, Instagram, and others, positively influences the decisions of consumers while buying environmentally friendly products. Thus, there is a direct influence of social media platforms and advertisements on the purchase behaviour of consumers across various sectors, including electric vehicles.

2.2 Investigating the Strategies Used by Social Media Platforms for Changing Narratives of People Towards Green Attitude

Structuration of social behaviour, such as green attitude, can be directly related to promotional efforts with eventful technological aid. Krupa et al. (2014) assert that advertisements and up-front incentives may be the most effective strategies; however, the lack of effective advertising of net financial savings creates difficulty for consumers to directly assess the original cost of electric vehicle purchase and ownership. According to this, the targeted design for the strategies, which incorporates transparency of the information regarding net financial savings as compared to fuel-based cars, might be helpful. Additionally, the strategy of persuasive advertisements, where an appreciation of the environmental benefits of decreasing gasoline consumption, along with positioning gasoline prices at higher costs and framing savings in gallons (Krupa et al., 2014). This indicates that the method of praising the green benefits of electric vehicles while pointing out the shortage and possible price advancements in fuel-based cars will be useful. The economic benefits of savings may add an edge in the advertisement strategies on social media for people to buy electric vehicles. Further, Alalwan (2018) presents that through various strategies, including customer relationship management, branding, e-WOM, and advertising could be applied on social media, advertisement contains a huge amount of money spent by organisations. The interactive and modern technology, social media advertisements have the potential to represent sharp and effective consumer communication as compared to traditional mass-media advertisement strategies (Alalwan, 2018). This shows that social media advertisement strategies have proven capacity to influence judgement, shape perception, and apply a rational point of view while buying a product, including electric vehicles, which promote a green attitude. On the whole, social media can elevate a green attitude amongst people through targeted advertisement strategies.

2.3 Reasons behind the propagation of Electric vehicles in Asian countries of China and Malaysia

The propagation of electric vehicles in Asian countries of China and Malaysia is a result of cumulative pressures from

the increasing demand and decreasing rate of fossil fuels for the transportation industry. He et al. (2022) state that there were 20 years of high-quality development in the Chinese electric vehicle industry with a research and development layout of "three verticals and three horizontals," which resulted in China becoming the first-ranking energy market in the world. This shows that the targeted stimulus and efforts with the strategy building, for over two decades, have created a position of the world's first-ranked country in the production of electric vehicles, which directly contributes to net zero carbon emission. Following this, the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016–2025 has a target of a substantial increase in renewable energy, up to 25% of the supply and hydrogen is one of the promising options for this goal (Li & Kimura, 2021). This indicates that Asian countries such as China, Malaysia, and others need to contribute towards the fulfilment of the goal set by ASEAN in reducing non-renewable sources of energy consumption. Further, since the Fifth Fuel Policy under the Eight Malaysia Plan between 2001 to 2005, Malaysia has been working to incorporate renewable energy sources into the transportation sector, which had the highest share in the energy demand (Lim & Lee, 2012). According to this, factors from the need for alternative energy sources due to the increase in demand, viability in terms of economics, and diminishing sources of non-renewable sources have led to the development of electric vehicles in Asian countries. Therefore, electric vehicles have been an impetus to the effort of renewable energy push by the Asian countries of China and Malaysia.

2.4 Research Gap

This section has reviewed the existing literature on EV adoption in the world. It pointed out the factors influencing consumer acceptance. It reviewed research on the influence of advertisements on social media on buying decisions in different sectors. Based on this overview, there is a significant gap in research on the specific context of EVs in Malaysia and China. The sources incorporate variable approaches to the advertisement strategies used by corporations, which amplifies the sale of electric vehicles and shapes the perceptions and choices of consumers in an effective way. However, there is no substantial research in the specific context of the developed market in the Asian countries of China and the developing market in the market of Malaysia. On the whole, this proves the necessity of this diagnosis and its impact, which could be valuable for this study of mapping the content of social media advertisements on the consumer perception and choice.

2.5 Theoretical Framework

The diffusion of innovation theory, which professes the tendency to adapt to the changes the innovation, and the theory of planned behaviour aid in the analysis of the influence of social media advertisements on the perception of consumers. Peters and Dütschke (2014) explore that some of the influential factors in assessing the compatibility with EVs with personal needs are environmental advantages, financial incentives, and willingness to buy an EV rather than performance characteristics. This reflects the use of the process of imprinting the necessity of electric vehicles using the theory of diffusion and planned behaviour in general audiences through social media advertisements. Therefore, incorporating the theory of diffusion of innovation and the theory of planned behaviour in the analysis of the consumer perception building for the use of electric vehicles provides insightful information.

2.5.1 The Diffusion of Innovations Theory

The theory of diffusion of innovation has five stages which direct from the emergence of the innovation to its prosperity: first, the knowledge stage, where the innovation gets exposure, second, is the persuasion stage, where the establishment of unfavourable or favourable;e attitudes take place (Roger, 1962). The third phase is the decision phase, where the individual is active in the process of deciding whether to accept or reject the innovation, next is the implementation stage, which elaborates on the usage of the innovation (Roger, 1962). Finally, the phase of confirmation is where the innovation is reinforced (Roger, 1962). In this regard, Labay and Kinnear (1981) state that an individual's technology adoption depends upon the innovation characteristics, which are compatibility, complexity, relative advantage, observability, and trialability. According to this overview, the diffusion of innovation theory covers the aspects of the compatibility of innovation for the specific taste of the general audience. This innovation creates a speculative position at first to give the scope for knowledge and time to indulge in the innovative aspects of technological change. After the information phase, the decision of consumers about the favourability of the product is tested with the decision about acceptance or rejection of the product or innovation. Now, the consumer takes an active role in the implementation of the innovation after the decision to accept it. This whole process confirms the diffusion of innovation in the mainstream.

There are various studies that reflect the use of the diffusion of innovation theory in the sector of electric vehicles as an innovative product. In this regard, Peters and Dütschke (2014) assert that as compared to fuel-based vehicles, electric vehicles are innovative products since they bring an indulging experience for users in terms of new technology, new systems, and new energy. This shows that electric vehicles fulfil the criteria of being an innovative product as it has characteristics such as a new form of energy, hydrogen, lithium-ion batteries, new technology, and new systems with rechargeable batteries. Following this, Xia et al. (2022) analyse the economic, social, and functional factors which

influence electric vehicle adoption based on the theory of diffusion of innovation. The results of this study demonstrate that innovation characteristics such as perceived relative advantage, perceived complexity, and compatibility can effectively assume the decisions of the consumers, regarding the adoption of electric vehicles (Xie et al., 2022). According to this overview of the study runs a direct reference to the diffusion of innovation theory. The results about the perceived advantage, compatibility, and complexity embedded in the electric vehicles give descriptive and reasonable reasons to adopt the new technology of electric vehicles. The enduring influence of EVs can affect the decisions of consumers due to the characteristics of the relative advantage of environmental protection compared to fuel-based cars. Therefore, the theory of diffusion of innovation can be applied to the context of the present study, where the direct role of social media advertisements on consumer perception and choice is weighted.

2.5.2 The Theory of Planned Behavior

The theory of planned behaviour provides justification for the underlined reasons behind the perception and influential role of social media advertisements on consumers in terms of electric vehicles. “According to the theory, the intention is the immediate antecedent of behaviour and is itself a function of attitude toward the behaviour, subjective norm, and perceived behavioural control; and these determinants follow, respectively, from beliefs about the behaviour's likely consequences, about normative expectations of important others, and about the presence of factors that control behavioural performance.” (Ajzen, 2012, p.438). This shows that the theory of planned behaviour provides insights about controlling factors of the behaviour of people and possible consequences. This can be applied to the perception and choices of people towards the reactions to social media advertisements about electric vehicles. Following this, Ajzen (2012) argues that insights into automaticity have the capacity to complement the understanding of behaviour with a reasoned action approach. Bosnjak et al. (2020) suggest that based on the theory of TPB, human behaviour can be divided into behavioural belief (belief about the consequences), and normative belief, which is the normative expectations of others. The control belief implies the presence of factors which might impede performance, which gives rise to self-efficacy or perceived behavioural control (Bosnjak et al., 2020). Yeğin and Ikram (2022) demonstrate that based on TPB, individuals can be influenced by uncontrollable factors such as time, opportunity, money, and others and then act in a systematic manner. Based on this overview, the theory of planned behaviour has multiple factors behind the influence of social media advertisement. Rather, social media advertisements might use this theory to design ads for the promotion of electric vehicles, including the amount of money, technological upgradation, ease of use, and others. The systematic behaviour of reacting and getting persuaded by these advertisements might come from the theory of planned behaviour. On the whole, the theory of planned behaviour incorporates the mapping of factors, such as money, moral responsibility towards the environment, and so on, either due to the interference of normative expectations or external control.

3. Methodology

The methodology focuses on conducting qualitative research in the form of content analysis. Qualitative content analysis runs a rule-guided and systematic technique used to analyse the contents of information of textual data with close reading (Forman & Damschroder, 2007). This shows that qualitative content analysis is helpful in the analyses of the collected data from social media platforms of Facebook and WeChat in the context of reactions and responses of people. It helps in the systematic segregation of the data in themes. For the collection of data, this approach focuses on social media posts, comments, likes, and shares collected from social media platforms popular in Malaysia and China, such as Facebook and WeChat. A total of 20 posts and their patterns of comments are analyzed in this process. Now, the reason behind selecting only 20 posts lies in the factors of convenience of managing the diverse range of WeChat and Facebook posts. The extensive analysis here identifies the minute details of possible contexts, factors of use of colours, set up of the e-vehicle showroom, and promotional posts on the social media platforms. The small sample size allows the intricate study of the above-mentioned aspects by using posts from Facebook and WeChat in China and Malaysia in the recent past between January to February 2025. For this research, keywords such as “Electric vehicles in China,” “Electric vehicles,” “Electric vehicles in Malaysia,” “EV groups in Malaysia,” and others are used alternatively on the open websites of Facebook and WeChat. Facebook and WeChat accessibility of accounts such as “EV group Malaysia,” which was followed and others were continued without any hurdles. The content style on both platforms was similar, with more ease in scrolling and accessing information on Facebook compared to WeChat. This study uses a qualitative methodology for the interrogation of existing data from popular social media channels. Qualitative methods prove crucial since researchers can accumulate, organise, and interpret the collected textual material, which is derived from observation (Laumann, 2020). This indicates the scope for the researcher to understand the possible interpretations of the selected texts. In this study, the social media posts and advertisements belonging to the countries of China and Malaysia are interrogated with a close textual analysis along with the support of the existing literature. The theories of planned behaviour and diffusion of innovation are employed to understand the possible interpretations of the texts used for the present study. Therefore, content analysis is used to analyze the retrieved data on consumer perceptions and interactions with electric vehicle (EV) content and present them in the context of Malaysia and China.

The method used for the data collection for the present study is a convenient sampling process, which gave access to the sources present on the general platforms of Facebook and WeChat in Malaysia and China. Convenient sampling collects multiple accessible sources for the collection of samples, narratives, and opinions, which are administered for research purposes (Edgar & Manz, 2017). According to this, the present research process employs a convenient sampling process for understanding social media advertisement patterns through the thematic distribution of the data findings. Following this, the thematic analysis technique provides scope to investigate the unanticipated research, optimizes the use of similarities and differences between the data set, and analyses several narratives through the qualitative research methodology (Nowel et al., 2017). Accordingly, a clear justification for the thematic analysis can be seen in the convenient sampling process, which gives a scope to analyse the inherent similarities and differences between the themes extracted from the dataset. Accordingly, the present study uses a convenient sampling process that deploys qualitative content analysis of the data found on the online social media platforms of Facebook and WeChat in the countries of Malaysia and China. The ethical consideration regarding public social media data includes the use of publicly visible data by avoiding private and secure data to respect the privacy of the creators. Thus, this process aids in the finding of the claim regarding the influence of social media advertisements on the perception of consumers.

3.1 Findings and Discussion

3.1.1 Findings

3.1.1.1 Thematic Representation of Collected Data from Social Media Platforms

Themes	Post description on facebook and Wechat	Replies
Generating awareness about electric vehicles	The descriptions from the posts from Figure 1, Figure 5, Figure 6, Figure 8, Figure 10, Figure 11, Figure 19, and so on provides range of information from the usage of the electric vehicles. The usage is provided in detail, such as in Figure 6, A long descriptive post by a social media channel named "WE ARE CHINA," states that due to China's commitment towards Green development, the taxi business and buses are powered by renewable energy now in China.	Figure 2 contains comments which directs towards the negative perception indicating the false promises of the EV industry regarding reduction in the pollution. Following this, comments in Figure 9, 12, and others have an elaborative discussion on the detailed mechanism on how Nickel and Cobalt batteries will never get less expensive and how questions about hydrogen batteries. This shows the generative consciousness about internal mechanism about e-vehicles through social media posts.
Expansion of the market of EVs amongst the public	Figure 1, Figure 4, 5, 6, 8, 10, 11, 19, and others have substantial luring content on the benefits of EVs from upgraded features, stylized functions, new colour, and so on. The cars with multiple brands such as Toyota, Tesla, BYD, and so on as shown in Figure 11.	Figure 14 has an extensive coverage about the new found rare earth materials in China's Yunnan province that could aid in the elevation of EV market in China. Figure 15 has commentary of people such as "If you found 1.15 million tons it is not rare anymore" (Refer Appendix). Another comments about the environmental protection which can be possible because of the untouched reserves of deposits used to create batteries.
Design of advertisement influencing perception of consumers	In Figure 6, statistical information about how Beijing is facing highest number of days with good quality air and lowest number with heavy pollution due to the use of electric vehicles. Figure 7 indicates challenges to the claims of Figure 6 and renewable energy promises by Chinese ecosystem. Figure 13 contains the extensive discussion on the tax credits incentives for the new tax regime due to the use of electric vehicles.	Figure 20 gives validation towards the quality of electric vehicles produced in Chinese market. It states, "Why buy a Tesla when the Chinese brands are so much better?" Further, Figure 21 has an information about the justification of the tax exemption advantages by buying an EV from government's tariffs and an information about the electricity bill in Malaysia. This Figure discusses discussions about the charging rates of electric vehicles in Malaysian channels.
Comments generating curiosity within consumers	Figure 2 has negative perception about the use of EV which has a description of the false promises of the EV industry regarding reduction in the pollution. Next, Figure 3 has an interesting alternative where a person is inquiring about his interest to buy a EV car from China and its doorstep delivery in Egypt.	Figure 16 has commentary on the finding of large deposits of minerals in the Chinese province. "Keep digging, you might be near to the center of the earth" shows concerns about the environment. Moreover, Figure 17 shows support to the Chinese efforts to elevate the electric vehicle industry with a specific pro-Chinese post about the selling of electric vehicles.
Reason behind the propagation of Electric vehicles in Asian countries	Figure 8 provides a collaboration of the strategic alliance between Asian countries of China and Japan with the construction of wholly-owned electric vehicles manufacturing plan in Shanghai China. Figure 10 and Figure 1 has an extensive coverage of the same news which has unidentified factors for the propagation of the messages which not only promotes Asian representation in the EV market but also the cross country collaboration within Asian diaspora.	Figure 21 provides an analytical comment on how the EV can be economic and charging points can give an edge in the tax exemption. Following this, the same figure covers curiocity of people with questions such as does this vehicle needs to be charged twice a week?, the consumer thinks that the charge rate should be much lower, and so on in Malaysia

3.1.1.2 Social Media Advertising Channels Influencing the Choices and Perceptions of Consumers in the Adoption of Electric Vehicles

Social media advertising channels use appropriate design of advertisement which influences the perception of consumers to have a positive intent towards buying an electric vehicle in the countries of China and Malaysia. Figure 3 has an interesting alternative where a person is inquiring about his interest in buying an EV car from China and its doorstep delivery in Egypt. Figure 6 statistical information about how Beijing is facing the highest number of days with good quality air and the lowest number with heavy pollution due to the use of electric vehicles. Figure 7 indicates challenges to the claims of Figure 6 and renewable energy promises by the Chinese ecosystem. Figure 13 contains an extensive discussion of the tax credit incentives for the new tax regime due to the use of electric vehicles. Figure 20 gives validation towards the quality of electric vehicles produced in the Chinese market. It states, "Why buy a Tesla when the Chinese brands are so much better?" Further, Figure 21 has information about the justification of the tax exemption advantages of buying an EV from the government's tariffs and information about the electricity bill in Malaysia. This Figure discusses discussions about the charging rates of electric vehicles in Malaysian channels. Thus, social media channels are providing an impetus to the sale of electric vehicles in the countries of China and Malaysia with designing features that incorporate branding.

3.1.1.3 The Impact of Social Media Advertising on the Electric Vehicle Innovation Between the Countries of China and Malaysia

As an impact of the social media advertisements on Facebook and WeChat, consumers get lured and curious about the extensive information about electric batteries and vehicles. Figure 2 contains comments directed towards the negative perception indicating the false promises of the EV industry regarding reduction in the pollution. Following this, comments in Figures 9, 12, and others have an elaborative discussion on the detailed mechanism of how Nickel and Cobalt batteries will never get less expensive and how questions about hydrogen batteries. This shows the generative consciousness about the internal mechanism of e-vehicles through social media posts. Figures 3 and 4 show the use of bright and shiny colours with polished and snatched looks for consumer attraction in the well-lit environment to create a mesmerising effect on the minds of the consumers. Figure 16 has commentary on the finding of large deposits of minerals in the Chinese province. "Keep digging, you might be near to the centre of the earth" shows concerns about the environment. This shows that social media advertising influences consumers to interrogate the new innovative techniques, which have the environmental benefit of net zero carbon emission.

3.1.1.4 The Strategies Used by the Social Media Advertisement Groups to Create Green Attitudes in Larger Masses in the Developing Economies of China and Malaysia

There are extensive strategies, including statistical information about the benefits of EVs, comments indicating trust in the quality, monetary incentives, and some shielded information to continue with curiosity. Figure 6, statistical information about how Beijing is facing the highest number of days with good quality air and the lowest number with heavy pollution due to the use of electric vehicles. Figure 7 indicates challenges to the claims of Figure 6 and renewable energy promises by the Chinese ecosystem. Figure 13 contains an extensive discussion of the tax credit incentives for the new tax regime due to the use of electric vehicles. Figure 20 gives validation towards the quality of electric vehicles produced in the Chinese market. It states, "Why buy a Tesla when the Chinese brands are so much better?" Further, Figure 21 has information about the justification of the tax exemption advantages of buying an EV from the government's tariffs and information about the electricity bill in Malaysia. Thus, these figures discuss the charging rates of electric vehicles in Malaysian channels.

3.1.1.5 The Need for the Propagation of Electric Vehicles in Asian Economics Considering the Demography of the Chinese and Malaysian Communities

The need for the propagation of electric vehicles in Asian economics considering the demography of the Chinese and Malaysian communities Figure 8 provides a collaboration of the strategic alliance between Asian countries of China and Japan with the construction of a wholly-owned electric vehicle manufacturing plant in Shanghai China. Figure 10 and Figure 1 have extensive coverage of the same news, which has unidentified factors for the propagation of the messages, which not only promotes Asian representation in the EV market but also the cross-country collaboration within the Asian diaspora. Moreover, Figure 17 shows support for the Chinese efforts to elevate the electric vehicle industry with a specific pro-Chinese post about the selling of electric vehicles. Thus, the propagation of electric vehicles not only incentivises the consumers but it decreases the pressure on the economy and natural resources.

3.2 Discussion

The social media content explores consumer engagement and sentiment in more detail so as to draw up similarities and differences in EVs across Malaysia and China. In the discussion section, within the context of existing theories and

literature, an interpretation of the results on how social media advertisements influence the attitude of consumers towards EVs in the two regions was discussed. Yeğin and Ikram (2022) demonstrate that based on TPB, individuals can be influenced by uncontrollable factors such as time, opportunity, money, and others and then act in a systematic manner. Based on this overview, the theory of planned behaviour has multiple factors behind the influence of social media advertisement. Rather social media advertisements might use this theory to design ads for the promotion of electric vehicles, including the amount of money, technological upgradation, ease of use, and others. The role of visual elements such as bright colours, shiny textures, and overall snatched looks, in Figures 1, 3, 4, 5, and 11, influencer partnerships, or distinctions between user-generated and branded content which are critical drivers of engagement and trust in digital spaces are crucial in this discussion This can be substantiated with the information from Figure 20 gives validation towards the quality of electric vehicles produced in the Chinese market. It states, "Why buy a Tesla when the Chinese brands are so much better?" Further, Figure 21 has information about the justification of the tax exemption advantages of buying an EV from the government's tariffs and information about the electricity bill in Malaysia. Moreover, Figures 9, 12, and others have an elaborative discussion on the detailed mechanism of how Nickel and Cobalt batteries will never get less expensive and how questions about hydrogen batteries. This shows the generative consciousness about the internal mechanism of e-vehicles through social media posts. This shows that economic incentivisation through government policies and its representation in social media advertisement proves to be one of the uncontrollable factors in introducing influence within consumers in Chinese and Malaysian markets. The Chinese markets are more inclined towards highlighting individuality through "WE ARE CHINA" slogans and going green for environmental stability, while Malaysian advertisements specifically focus on the design and practical aspects of comparative prices, charges of electricity, and so on.

The diffusion of innovation theory covers the aspects of the compatibility of innovation for the specific taste of the general audience. Labay and Kinnear (1981) state that an individual's technology adoption depends upon the innovation characteristics which are compatibility, complexity, relative advantage, observability, and trialability. This innovation creates a speculative position at first, to give the scope for knowledge and time to indulge in the innovative aspects of the technological change. In the context of the present study, comments in Figures 9, 12, and others have an elaborative discussion on the detailed mechanism of how Nickel and Cobalt batteries will never get less expensive and how questions about hydrogen batteries. This shows the generative consciousness about the internal mechanism of e-vehicles through social media posts and the overall relative advantage after applying observation to a larger extent. Moreover, the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016–2025 has a target of a substantial increase in renewable energy, up to 25% of the supply and hydrogen is one of the promising options for this goal (Li & Kimura, 2021). This indicates that Asian countries such as China, Malaysia, and others need to contribute towards the fulfilment of the goal set by ASEAN in reducing non-renewable sources of energy consumption. Further, since the Fifth Fuel Policy under the Eight Malaysia Plan between 2001 to 2005, Malaysia has been working to incorporate renewable energy sources into the transportation sector which had the highest share in the energy demand (Lim & Lee, 2012). According to this, factors from the need for alternative energy sources due to the increase in demand, viability in terms of economics, and diminishing sources of non-renewable sources have led to the development of electric vehicles in Asian countries. Peters and Dütschke (2014) assert that as compared to fuel-based vehicles, electric vehicles are innovative products since they bring an indulging experience for users in terms of new technology, new systems, and new energy. Figure 8 provides a collaboration of the strategic alliance between Asian countries of China and Japan with the construction of a wholly-owned electric vehicles manufacturing plant in Shanghai China. Figure 10 and Figure 1 have extensive coverage of the same news, which has unidentified factors for the propagation of the messages, which not only promotes Asian representation in the EV market but also the cross-country collaboration within the Asian diaspora. This shows that the propagation of electric vehicles not only incentivises the consumers, but it decreases the pressure on the economy and natural resources. Therefore, this examines cultural, economic and policy forces that may help explain observed differences.

4. Conclusion

This study focused on electric vehicles and their role in sustainable forms of transportation along with the importance of the Asian markets, specifically Malaysia and China are viable regions for electric vehicles. The theoretical framework of this study explained relevant theories including the Diffusion of Innovations Theory and the Theory of Planned Behavior that highlight how these concepts will be used in analyzing the impact of social media advertising on EV perceptions and consumer behavior. The analysis suggested that social media platforms such as Facebook and WeChat aid in the construction of a mindset for reflecting an optimistic viewpoint about electric vehicles as an alternative to oil-based traditional cars. The methodology was focused on conducting qualitative research in the form of substantial content analysis. This approach focuses on social media posts, comments, likes, and shares collected from social media platforms popular in Malaysia and China such as Facebook and WeChat. Thus, it can be said that social

media platforms such as Facebook and WeChat aid in the construction of a mindset for reflecting an optimistic viewpoint about electric vehicles as an alternative to oil-based traditional cars. This is possible because of the propagation of electric vehicles which not only incentivise the consumers but it decreases the pressure on the economy and natural resources.

4.1 Recommendations

With the elevating scope for the subject of electric vehicles, this study gives an outline narrative about the effect of social media advertisements on consumer choices and perceptions. The study investigates the social media posts on Facebook and WeChat in the countries of China and Malaysia. However, it has a limited scope due to the limited sample size for intensive research. A recommendation can be given in terms of the application of a mixed methodology with qualitative semi-structured interviews or surveys concerning the people who bought electric vehicles in these demographic regions. This study is focused on the adoption of people due to the impact of social media ads, however, a broader implication of political and economic aspects that affect the market of electric vehicles can be studied considering the geopolitical power struggle between Asian and Western countries.

4.2 Future Scope

This study will be crucial for the research students and scholars with an inherent interest in the emerging market of electric vehicles along with the social media advertisement dynamics. It will be appealing to educators and students across many fields about how an innovation can create a place in the normative routine of life. Naturalists and environmental activists can enable an informative narrative about how consumers get attracted towards the effects of social media advertisements in the Chinese and Malaysian markets.

Acknowledgments

I would like to express heartfelt gratitude to my supervisors, Dr. Diyana Nawar Kasimon and Dr. Nur Atirah Kamaruzaman, for their unwavering support, guidance, and assistance in revising my work and adjusting research directions.

Special thanks also go to Xiaobin Wang for the help in organizing data, which was crucial to this project.

Their dedication has been invaluable, and I am deeply grateful.

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Redfame Publishing.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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