The impact of sustainable practices on consumer behaviour in the UK automobile sector

Mamta
Bolton University, UK

Palto Datta
Regent College London, UK

Abstract

Purpose: Sustainability plays a crucial part in consumer decision-making in a world that is changing quickly and where social and environmental issues are of utmost significance. With an emphasis on comprehending how sustainable activities affect consumer decisions, this research investigates the relationship between sustainable practices and consumer behaviour.

Methodology: The study uses a positivist research philosophy with a deductive approach. A survey strategy is used, and quantitative research methods are employed. A sample of 50 subjects was selected randomly, and a survey was conducted online. The population is drawn from the UK automotive sector. The questionnaires are designed using Google Forms, and the link is shared using social media.

Findings: The research confirms a positive relationship between sustainable practices and consumer behaviour, indicating that customers are choosing more and more goods and services consistent with their sustainability beliefs. The results show a high positive correlation between sustainable practices and customer choice, suggesting that sustainable practices influence consumer choices.

Study contributions and implications: By highlighting the importance of sustainable practices, this study adds to the expanding body of information on sustainability in the context of consumer behaviour. Moreover, the research offers a strong foundation for companies and decision-makers to create plans that suit customer tastes and enhance the sustainability of goods and services. Businesses hoping to prosper in a conscientious market must comprehend customers' behaviour and motives as they seek environmentally friendly solutions. In addition to illuminating the beneficial relationship between sustainable practices and customer behaviour, this study emphasises how urgent it is for companies and decision-makers to prioritise sustainability in their plans and choices.

Background to the research topic

The global landscape of the automobile sector has recently undergone a high transformation driven by the growing concern for environmental awareness and sustainable practices. Zhang, Zhang, and Zhou (2021) state that this paradigm shift has been prospectively evident in the premises of the United Kingdom. The focus on sustainability in the automobile sector of the UK industry is emblematic of the global movement towards greener and environmentally sound transportation solutions. The confluence of variables has sped up the UK's transition to sustainable practices in the automotive industry. The developing overall worry about environmental change and air quality has been one of the primary considerations. States all around the globe, remembering those for the UK, began setting up severe limitations to diminish emanations from vehicles as the hurtful outcomes of ozone-harming substance discharges turned out to be increasingly self-evident (Nosi et al., 2020). This forced a fundamental

revaluation of automotive technology and design, forcing manufacturers to prioritise sustainability. The UK motor industry started on a transformative path marked by innovation and sustainability in response to these environmental imperatives. The creation and marketing of electric vehicles (EVs) represented a significant turning point in this journey.

The UK government has established several incentives, such as subsidies and tax advantages, to stimulate the use of EVs as worries about fossil fuel dependency and carbon emissions increase (Wu, 2023). This proactive technique not only hurried the progress to greener energy sources but also animated interest in research and development, which has brought about the making of severe electric vehicle models. Alongside the prominence of EVs, the UK vehicle area has seen critical headways in mileage and the utilisation of sustainable materials. Vehicles that use less fuel and emit fewer pollutants result from advancements in hybrid technology, lightweight materials, and aerodynamics (Li, 2020). The environmental impact of manufacturing processes has also been reduced because of increased attention to recycling and the use of sustainable materials in manufacturing automobiles. Corporate sustainability efforts have greatly influenced the UK automotive industry's dedication to environmental responsibility. Leading automakers in the UK have implemented thorough sustainability policies that include many facets of their business. These tactics include end-of-life vehicle disposal, supply chain management, product design, and manufacturing procedures (Walker, 2021). Throughout the lifespan of their cars, businesses have committed to lowering carbon emissions, preserving resources, and producing the least amount of trash possible.

Alongside these sustainability initiatives, the UK car industry has worked to educate and involve customers in the advantages of environmentally friendly mobility options. Marketing efforts emphasising the environmental benefits of green cars are now pervasive, encouraging buyers to feel more responsible for the environment (Shen, 2021). Additionally, the availability of unambiguous and transparent information, such as fuel economy and emissions ratings, enables customers to make decisions consistent with their environmental ideals. Sustainable mobility now encompasses more than just the manufacture and use of automobiles. Innovative mobility solutions have emerged in the UK, such as car-sharing programs, ride-sharing services, and urban design projects targeted at easing traffic congestion and increasing public transit (Chen, 2019). These efforts highlight the industry's dedication to producing environmentally friendly goods and aiding in a general change toward ecologically friendly urban transportation (Sheth, 2021). Government regulations and policies have significantly shaped the trajectory of sustainable practices in the UK car sector. The UK government has continually established aggressive emissions reduction goals, motivating manufacturers to spend money on greener technology and create cars that affect the environment less. Adopting sustainable practices has been encouraged by regulatory measures, including implementing emissions regulations and creating low-emission zones in metropolitan areas. International agreements and cooperation have also impacted the development of the UK's vehicle sector. The Paris Agreement, which aims to keep global warming to far below 2 degrees Celsius, and the UK's adherence to it have strengthened the need for sustainable mobility (Patwa, 2021). This dedication has resulted in international partnerships where best practices and innovations are shared to hasten the development of sustainable transportation.

The context of the study is the automotive sector in the UK, and Jaguar Land Rover (JLR) is used to carry out the research. Jaguar Land Rover (JLR), a prominent British automotive manufacturer, has a storied history dating back to the early 20th century. Established in 1922, JLR has evolved into one of the world's most iconic and respected luxury automotive brands, renowned for its commitment to innovation, design excellence, and British craftsmanship (Chaoudhry, 2023). In a game-changing move in 2008, Indian global automaker Goodbye Engines paid Portage Engine Organization nearly $2.3 billion to buy it. With the new funds and resources that this purchase brought to the firm, JLR was able to revamp its product range and increase its worldwide footprint (Stalker, 2021). Its collection of premium cars has an exceptional fusion of refinement, performance, and cutting-edge technology. Models like the Range Rover Velar and the Jaguar F-Type have won praise from critics for their superior engineering and design (Griffiths, 2023).

The research examines the impact of sustainable practices on consumer behaviour in the UK's automobile industry.

Literature Review
The concept of sustainable practices

Sustainability aims to balance ecological, economic, and social issues (Chen, 2019). An extensive range of activities are included in sustainable practices, such as using energy-efficient technology, prudent resource management, waste minimisation, and socially conscious corporate practices (Liuo, 2020). For example, sustainable agriculture encourages organic and ecologically friendly agricultural practices to guarantee food security without destroying the environment. John Elkington popularised the triple bottom line method, which integrates social, environmental, and economic sustainability into company strategy. Furthermore, lowering greenhouse gas emissions and lessening the effects of climate change are made possible by renewable energy sources like solar and wind power (Trapp, 2022). Also, Kumar (2022) argued that pursuing sustainability can impede economic expansion, particularly in sectors of the economy that primarily rely on non-renewable resources. They contend that strict environmental laws may inhibit competition and innovation. It is essential to consider trade-offs and ensure the economic aspect of sustainability is not disregarded.

Sustainable practices are supported by a conceptual framework known as the sustainability theory. It offers the theoretical groundwork for comprehending the intricate interactions of social, economic, and environmental variables. A comprehensive method for formulating policies and addressing problems is provided by sustainability theory (Sahu, 2023). The Brundtland Commission defined sustainable development as " that meets the needs of the present without compromising the ability of future generations to meet their own needs." This concept forms the basis of sustainability theory. This approach emphasises the interdependence of ecological, economic, and social factors by integrating them (Gopal, 2016). The environmental component is concerned with preserving the planet's health and emphasises resource conservation, biodiversity, and climatic stability. The economic dimension encourages efficiency and innovation to attain wealth without diminishing resources. The social component, which emphasises social justice and community involvement, is concerned with the equality and well-being of human societies. Also, Siddiqui (2022) argued that sustainability might be too utopian and that its actual application is complex. They draw attention to how difficult it is to balance these three factors and doubt the possibility of attaining comprehensive sustainability. Some contend that finding the ideal balance may be challenging since prioritising one dimension may ultimately result in trade-offs with the others. Furthermore, there are a variety of interpretations and methods that might arise from the difficulty of defining and assessing sustainability.

Sustainable Practices in the Automobile Sector in the UK

As the UK has worked to address environmental issues and lessen its carbon footprint in recent years, sustainable practices have attracted much attention. Promoting renewable energy sources, such as wind, solar, and hydroelectric power, is a well-known sustainable practice in the UK. The UK government has set challenging goals to boost renewable energy production. The UK's renewable power capacity reached 47.4 GW in 2020, according to a study by the Department for Business, Energy & Industrial Strategy (BEIS), which helped to reduce carbon emissions significantly (Palit, 2022). However, some claim that the intermittent nature of renewable energy sources might cause problems with the energy supply, requiring fossil fuels as a backup, which may impede the transition to a truly sustainable energy system. The focus on sustainable transport is another essential element of sustainability in the UK. According to the Road to Zero policy, the UK government has suggested prohibiting the sale of new petrol and diesel vehicles by 2030. Electric vehicles (EVs) may be crucial in lowering emissions and enhancing air quality, according to Research from the Centre for Research into Energy Demand Solutions (CREDS) (Begum, 2022). The viability and equity of this shift are nonetheless questioned due to worries about the environmental effect of EV batteries and the absence of charging infrastructure in specific locations.

Furthermore, sustainable farming methods are becoming increasingly popular in the UK. Organisations like the Soil Association encourage initiatives like organic farming and decreasing the use of pesticides. The possible environmental advantages of organic farming (Mishra, 2022). Critics counter that reduced crop yields from organic agriculture can lead to higher food costs and more land usage, negating environmental benefits (Sahu, 2023). The UK has worked to encourage recycling and waste

reduction in waste management. In 2018, DEFRA released the Waste Strategy for England, which outlines objectives to reduce single-use plastics and boost recycling rates. According to research from a WRAP (The Waste and Resources Action Program) study, recycling rates have increased over time. However, opponents claim that recycling may be energy-intensive and that a circular economy should be prioritised above consumption reduction. The UK's sustainable practices include conservation initiatives and natural ecosystem preservation. Organisations like the RSPB (Royal Society for the Protection of Birds) have greatly aided the conservation of biodiversity. As in any other nation, achieving sustainability in the UK is a complex challenge that needs constant adaptation and consideration of various elements, including the effects on the economy, society, and environment. The UK's continued attempts to prevent climate change and protect its natural environment continue to be hampered by the need to balance these variables while pursuing sustainability.

Petroleum product utilisation has been a principal quality of the vehicle industry for quite some time, adversely affecting the climate and the environment. In any case, because of a rising consciousness of supportability and natural issues, there has been an impressive change in customer conduct inside the business. This pattern might be credited to the vehicle business' reception of various supportable practices, like the headway of electric vehicles (EVs), expanded mileage, and CSR programs (Yu, Khan and Umer, 2022). The creation and advertising of electric cars is perhaps the most prominent reasonable practice in the auto area. Electric vehicles (EVs) have become even more notable and available to buyers, thanks to organisations like Tesla.

In contrast with regular gas-fuelled vehicles, EVs have less expensive working costs and less of a natural effect. The natural benefits of EVs stand out for shoppers to an ever-increasing extent, which is assisting with driving up their reception (Mishra, Singh and Rana, 2022). Government incentives like tax credits for EV purchases have encouraged consumers to move to electricity, demonstrating how policy measures may support sustainable practices and affect consumer choices. Another sustainable technique that has affected customer behaviour in the US vehicle sector is increased fuel economy. More fuel-efficient automobiles are now being produced because of tighter fuel-efficiency regulations and technological improvements. Consumers are increasingly aware of their carbon footprint and the long-term financial benefits of driving fuel-efficient vehicles (Yu, Umer, and Rahman, 2022). Due to increased understanding, people choose hybrid and small cars more often since they use less petrol and produce less greenhouse gas (Siddiqui et al., 2022). Automakers are forced to develop and invest in eco-friendly technology as customers prioritise fuel economy, producing a positive feedback loop that benefits both the environment and consumer preferences.

Initiatives for corporate social responsibility (CSR) have significantly influenced consumer behaviour. Nowadays, many automakers are making sustainability a key component of their business plans. They are recycling, reducing waste, and obtaining products from ethical sources, among other things (Begum et al. 2022). Customers becoming more conscious of their purchases' ethical and environmental implications are drawn to these activities. Customers see companies that strongly emphasise CSR as being more trustworthy and socially conscious. Consumers can immediately see the difference between real CSR activities and greenwashing. Therefore, businesses must ensure their CSR programs are valid and not simply a marketing gimmick (Palit, 2022). The availability of sustainable mobility choices outside conventional automobile ownership impacts consumer behaviour in the automotive sector. Public transit, carpooling, and ride-sharing services have become popular, especially in metropolitan areas. These alternatives lessen the need to own a personal car by giving customers more affordable and environmentally friendly methods to satisfy their mobility demands (Das, 2023). This change in consumer behaviour toward shared mobility is particularly evident in younger generations, who place a higher value on sustainability and convenience than automobile ownership.

Links between sustainable practices and consumer behaviour

The automotive industry, which plays an essential role in the country's economic development, has experienced substantial shifts in recent times, particularly regarding the adoption of sustainable methods. The sector has increasingly embraced sustainability as a prominent focal point, motivated by apprehensions about environmental deterioration, the exhaustion of resources, and shifting consumer

inclinations. According to Gopal and Thakkar (2016), the UK automotive sector has adopted sustainable practices in its operations, encompassing product design, production procedures, and supply chain management.

The dynamic evolution of sustainable practices within the UK vehicle sector has changed the industry and substantially impacted customer behaviour. As Kushwaha and Sharma (2016) highlighted, one crucial element of this shift is the growing consciousness and apprehension among customers regarding the ecological consequences of their decisions. Consumers' increased level of consciousness has resulted in a change in their preferences towards automobiles that have reduced carbon footprints. As a result, electric vehicles have become increasingly popular due to their notable characteristics of reduced greenhouse gas emissions and lower operational costs.

Notwithstanding the increasing focus on sustainable practices, the UK automobile business continues to face persistent issues. Consumer preferences are still influenced by issues such as the elevated initial expenses associated with electric vehicles, the insufficient availability of charging infrastructure in particular areas, and apprehensions regarding battery longevity. Nevertheless, these problems also offer prospects for manufacturers and politicians to advance the cause of sustainability (Mahamuni and Tambe, 2014). Also, Vermani, Bera and Kumar (2021) revealed that consumer education and awareness initiatives hold significant potential in debunking fallacies and misunderstandings surrounding electric vehicles (EVs). Furthermore, implementing incentives to promote the advancement of cost-effective electric cars (EVs) equipped with durable battery technology will mitigate the financial disparity between conventional automobiles and their electric counterparts (Sangwan and Chaudhry, 2018).

Moreover, the ongoing allocation of resources towards expanding charging infrastructure, particularly in rural and isolated regions, can effectively mitigate apprehensions related to limited driving range and enhance customer trust in electric vehicles. It is even indicated by Katiyar et al. (2018) that UK automotive industry is currently undergoing a significant shift towards sustainability, motivated mainly by the imperative to tackle environmental issues and respond to evolving consumer demands (Khan et al., 2021). The industry's landscape has been transformed by implementing sustainable practices, which encompass promoting electric vehicles and adopting eco-friendly production techniques. There is a growing trend among consumers in the UK to emphasise environmentally friendly alternatives, with electric cars gaining popularity as a preferred option. The increasing significance of sustainability in the UK automobile industry presents a range of difficulties and opportunities (Kumar and Pandey, 2023). Despite the persistent presence of constraints such as cost restrictions and infrastructural limits, these challenges can be effectively addressed by implementing strategic initiatives and disseminating consumer education (Shetty and Bhat, 2022).

Research Methodology
The survey research strategy was used to examine the impact of sustainable practices on consumer behaviour in the UK's automobile industry. Using a well-planned survey research technique, this study examines how customer behaviour in the UK's automotive sector is affected by sustainable practices. Through the systematic collection of structured data, this research style is well-suited for investigating consumer perceptions, preferences, and behaviours, enabling a thorough knowledge of the link between sustainability and consumer choices. A quantitative research method is employed to conduct the survey. The quantitative method strongly supports the literature, emphasising the importance of actual data and statistical analysis when examining how sustainability affects consumer behaviour. This emphasised using quantitative data in comprehending the relationships between sustainability, customer perceptions, and purchase choices. A sample of 50 was selected using random sampling and data was collected online using social media platforms.

The target audience, which includes consumers, potential customers, and decision-makers in the automobile industry, is a broad and heterogeneous group. Questionnaires were designed using Google Forms, and the link was then sent via LinkedIn. Using the ease of use and accessibility to online surveys, this approach makes it possible to collect data from a geographically distributed set of participants. Moreover, by disseminating the survey link via LinkedIn, the study capitalises on the networking

potential built into the site. This strategy may improve the sample's representativeness by reaching out to people from different places, backgrounds, and roles in the automobile sector.

Findings (Data Presentation)

Table 1: Cronbach's Alpha

Cronbach's Alpha	No. Of Items
0.89	25

An appropriate Cronbach's Alpha value shows high internal consistency and is typically over 0.7. This implies that your scale or questionnaire's items accurately assess the same underlying concept (Kumar, 2016). A Cronbach's Alpha rating of less than 0.7 indicates an inferior level of internal consistency in the scale. In this instance, it could be required to reassess the scale, consider adding or deleting specific components, or investigate the causes of the poor dependability. However, based on the above results, the Cronbach's Alpha value is found to be 0.89. It shows a high tendency towards internal consistency.

Pearson Correlation

Table 2: Pearson Correlation

Pearson Correlation			
		Sustainable practices	Consumer Behavior
Sustainable practices	Pearson correlation Sig. (2-tailed) N	1 16044	0.98* .000 16044
Consumer behaviour	Pearson correlation Sig. (2-tailed) N	0.98* .000 16044	1

**. Correlation is significant at the 0.01 level (2-tailed)

The results demonstrate that there has been a positive connection between the two variables, Sustainable practices, and consumer behaviour, with values between +1—furthermore, the significant value at the 2-tailed is 000, which is greater than the usual value. There is a positive correlation between the two numbers. It means that the relationship between the sustainable practices and the consumer behaviour is found to be positive. The findings that indicate a favourable relationship between remote work and worker happiness and productivity are consistent with previous research. This positive link is consistent with other studies showing that sustainable practices resulted in high consumer engagement, fostering positive behaviour (Gajendran & Harrison, 2007).

Moreover, citing a substantial figure of.000 shows a real connection between remote work and worker productivity and contentment. The intense nature of this link is shown by the p-value of .000, which is less than the usual significance threshold of .05. This is in line with research that has repeatedly demonstrated a strong correlation between both variables.

Table 3-Regression analysis

Model	R	R Square	Ad R Square	Std. Error
1	.981	.961	.97	000

The model Summary value indicates that Adjusted R Square is 97%. It means the model is a good fit, and the relationship between sustainable practices and consumer behaviour is positive. With an Adjusted R-Square score of 97%, the model description indicates a perfect model fit. A high Adjusted R-Square

value suggests that the model explains a significant variation in the dependent variable — in this example, consumer behaviour in response to sustainable practices. This result aligns with other studies that showed how sustainable practices and consumer behaviour are positively correlated. A high Adjusted R-Square score shows how effectively the independent variable (sustainable practices) explains the variance in the dependent variable (customer behaviour). It suggests that sustainable behaviours account for almost 97% of the diversity in consumer behaviour. This robust correlation is consistent with the research that shows customers are becoming increasingly interested in sustainable activities and goods (Hartmann et al., 2005). It is essential to remember that a high Adjusted R-Square value indicates that the model is reliable and has a real positive correlation between sustainable practices and consumer behaviour. The statistical data supports the results and strengthens the literature's agreement that sustainable practices positively influence consumer behaviour. The model summary's Adjusted R-Square value of 97% offers compelling evidence for the favourable correlation between sustainable practices and customer behaviour. It is consistent with the many studies showing that customers are becoming more and more likely to choose sustainable options.

ANOVA

Table 4: 4 model summaries

Model	Sum of squares	Df	Mean Square	F	Sig.
Regression	3989.1	1	7978.2	3.9	.000
Residual	156.51	23	313.02		
Total	4145.61	24	8291.22		

The above Anova table has presented that the value of F is 567.1, is more significant than 3.5, and the level of significance is less than 0.05, which means that the model is a good fit and is identified that the relationship and relationship between the sustainable practices and the consumer behaviour is found to be positive. The model summary shows a very robust fit for the model, which has an Adjusted R Square value of 97%. This means that the model successfully explains a significant percentage of the variance in the dependent variable, which is consumer behaviour in response to sustainable practices. This result is consistent with other studies highlighting the robust and favourable link between sustainable practices and consumer behaviour. With an Adjusted R-Square value of 97%, sustainable practices are thought to be responsible for almost all the variance in consumer behaviour. This robust correlation aligns with the research that highlights consumers' increasing preference for sustainable goods and methods (Hartmann et al., 2005). It is critical to realise that a high Adjusted R-Square value indicates the robustness of the model and validates the favourable relationship between sustainable practices and consumer behaviour. The statistical data adds credence to the literature's view that sustainable practices positively influence consumer behaviour. In conclusion, the model summary's adjusted R-square value of 97% offers strong evidence in Favor of the positive correlation between sustainable practices and customer behaviour. This is consistent with the large body of research showing that customers are more likely to choose sustainable options, highlighting the role of sustainable practices in influencing consumer behaviour.
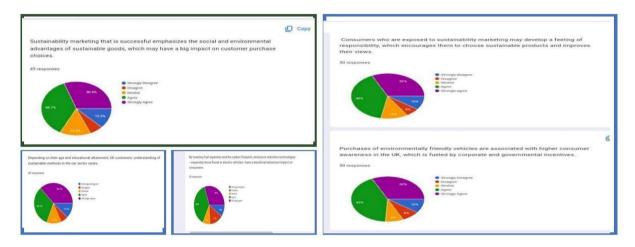
Descriptive analysis

A question on the frequency of the impact of sustainable practices on consumer behaviour in a survey has shown that the option was available to the respondents, ranging from a study of the UK automobile industry and the impact on consumer behaviour. Then, females and males are included in this survey. 32.7% of customers in the UK have a good understanding of sustainable methods, and they most agree. Only ten per cent of customers disagreed, and 38% agreed that lowering fuel expenses has a good impact on them.

Almost 36.7 % agree that sustainability marketing is successfully emphasised and positively impacts consumer purchase choices.

32% of consumers strongly agree that sustainability marketing is good for developing responsibility, but only 10% do not agree. Moving further, about the benefits of Eco-friendly vehicles, almost 42%are % agree that customers have good awareness and 32% strongly agree.

In the United Kingdom, 44% of the young generation are more conscious about the environment used by cars, and less than 10% are unsure about it. Secondly, subsidies and emission reduction technology have a good impact on influencing consumer behaviour.

44% of consumers strongly agree that sustainability marketing help to highlight product's transparency and authenticity and less than 8 % strongly disagree. On the other hand, most of the eco-friendly car buyers in the UK think that it turns into activists using social platforms to increase awareness.

Discussion

Part of the more significant sustainability movement is raising awareness of sustainable practices in the UK car sector. Given customers' considerable impact on the automobile industry, it is critical to ascertain the extent to which consumers are aware of sustainable practices. First, several studies (Bamberg, 2013; Tanner and Kast, 2003) have shown how UK customers are becoming more aware of and concerned about environmental concerns and how these affect their purchase choices. This knowledge results from several factors, such as government measures, media coverage of climate change, and the efforts of automakers to encourage environmentally friendly activities. When buying a car, consumers increasingly consider emissions, fuel economy, and eco-friendly technology (Gopal, 2016). However, it is equally critical to acknowledge conflicting opinions and difficulties in measuring consumer awareness. While knowledge may increase, other studies contend that this does not always convert into buying habits supporting sustainable goods (Liu, 2023). This viewpoint highlights the "awareness-action gap" when customers voice concerns about sustainability but do not prioritise it when purchasing. Cost, brand loyalty, and convenience are some factors that often take precedence over sustainability concerns.

Moreover, studies indicate that younger customers who have completed more education are more likely to be environmentally aware and favour sustainable goods (Trapp, 2022). Therefore, a detailed examination of awareness levels requires a solid grasp of customer segmentation. It is impossible to overstate the influence of marketing and corporate social responsibility (CSR) programs on raising consumer awareness. Businesses that aggressively publicise their sustainability initiatives have a greater chance of increasing customer awareness (Carroll and Shabana, 2010). Eco-labelling and green advertising are two sustainability marketing techniques that successfully influence customer preferences and perceptions. The validity and efficacy of these marketing strategies are still being debated. However, since some customers are wary of "greenwashing," the practice of businesses inflating their sustainability initiatives to boost their sales (Liang, 2022). A critical component of the sustainability picture is the awareness levels among UK customers in the automotive sector. Previous research indicates that increased awareness is being caused by several reasons, such as media attention and automakers' initiatives. However, such problems as the awareness-action gap and the impact of demographic factors still call for more investigation. Consumer awareness is greatly influenced by marketing and corporate

social responsibility (CSR) activities, while the sincerity of these endeavours is still under investigation. Developing successful sustainability initiatives for the UK automotive sector requires a thorough grasp of customer awareness.

One of the most critical responses to the rising concerns about environmental sustainability and climate change in the automotive industry has been the incorporation of emissions reduction technology. In the automobile sector, emissions-reduction technologies, including fuel-efficient automobiles, hybrid cars, and electric vehicles (EVs), have attracted much interest and funding. Studies reveal that customers are becoming more receptive to providing eco-friendly solutions (Li et al., 2020). For example, the popularity of electric vehicles (EVs) has increased because of their lower operating costs and carbon footprint (Siddiqui, 2022). Buyers who value environmental sustainability and want to reduce carbon emissions are likelier to choose cars with emissions control systems.

Studies have shown that when sustainability marketing is done well, it may positively influence customer attitudes and purchase choices. According to (Kumar, 2016) it has the power to raise awareness, appeal to customers' values, and affect how legitimate a brand is seen. Customers who care about the environment are more inclined to choose companies and goods that share their beliefs. Furthermore, education of customers on the social and environmental advantages of sustainable goods may be greatly aided by sustainability marketing. According to Begum (2022), it would be debunking misconceptions, educate customers about the benefits of making sustainable decisions, and encourage a feeling of social responsibility. Opponents contend that "greenwashing" is possible, in which businesses fabricate or exaggerate their sustainability initiatives to boost sales (Laufer, 2003). Such dishonest tactics have the potential to erode customer confidence by fostering distrust. Businesses must ensure their sustainability marketing is truthful, factual, and aligned with real-world sustainability initiatives. One potential obstacle is that some customer categories may not resonate with sustainable marketing. Although the number of environmentally aware customers is increasing, not all prioritise sustainability when purchasing. Price, convenience, and product performance are still considerations that some customers may value more than sustainability features (Mishra, 2022).

Furthermore, various businesses and cultural situations may see varied levels of success with sustainable marketing. Cultural variations may affect how consumers understand and respond to sustainability messaging (Dong, 2022). For sustainable marketing tactics to be genuinely effective globally, cultural differences must be considered. It is found that customer attitudes and purchase choices are greatly influenced by sustainable marketing. It may successfully convey the social and environmental advantages of sustainable goods, be in line with customer values, and instil a feeling of responsibility when carried out honestly and transparently. However, there are obstacles to overcome, such as the requirement for openness, the need to avoid greenwashing, and differences in consumer interests and cultural settings. In the shift to more environmentally friendly consumer choices, sustainability marketing is still a potent instrument.

Conclusion

In conclusion, the study on consumer knowledge of sustainable practices in the automotive industry in the United Kingdom has shown the complex relationships between consumers, sustainability, and the automotive sector. A nuanced understanding of the complex relationship between consumers and sustainability has been provided by this research, which spans various aspects of consumer awareness, the impact of emissions reduction technologies, the role of sustainability marketing, and the effects of eco-friendly vehicle purchases. **First**, the UK's automobile market is significantly shaped by customer awareness. Consumers' growing concerns about environmental sustainability have been repeatedly brought up in the literature study and conversations, which directly impacts their purchase choices. Numerous causes, like government programs, media attention, and automakers' proactive efforts, contribute to the rise in awareness. This increased awareness is driving a shift in consumer choices rather than only being a passive recognition of ecological challenges. **Second,** incorporating emissions reduction technology, such as hybrid models, electric cars, and cutting-edge fuel economy advancements, is significantly impacted customer behaviour. Studies show that customers are becoming more interested in these technologies regarding being environmentally conscious and lowering their carbon footprint. The

diversity of customer preferences highlights the necessity for a range of eco-friendly products to meet various demands and concerns in the market. Therefore, even while technology for reducing emissions is becoming more popular, it is crucial to consider the difficulties and differences in their adoption.

Thirdly, sustainable marketing has become a powerful instrument for shaping customer perceptions and behaviour. Sustainability marketing may successfully convey the environmental and social advantages of sustainable goods, connect with customer values, and cultivate a feeling of responsibility when done honestly and transparently. In addition to increasing awareness, sustainability marketing highlights the link between consumer choices and more general sustainability objectives. It is essential for enlightening customers and busting misconceptions about the limits of sustainable goods. However, a significant obstacle is the prevalence of "greenwashing," in which businesses fabricate or overstate their sustainability initiatives for commercial gain. Such actions may undermine customer confidence and breed distrust. As a result, companies must make sure their sustainability marketing is genuine, in line with current sustainability standards, and open in its messaging.

Finally, there is a dynamic link between customer awareness and purchasing eco-friendly vehicles. Although buying environmentally friendly cars might help raise consumer knowledge of sustainability measures in the UK auto sector, different customers may have varying levels of understanding. Environmental concerns and pragmatic factors like reduced running costs and government subsidies, may be the driving forces behind consumers' decision to purchase eco-friendly automobiles.

Recommendations

1. The first recommendation is to improve marketing education and innovation. Automotive businesses should fund educational initiatives that openly convey the environmental and social advantages of their sustainable processes and goods to close the awareness-action gap and foster customer trust.
2. The second recommendation is about customising sustainability projects to meet the needs of varying consumers. It is suggested that automakers broaden their selection of environmentally friendly cars to accommodate a variety of customer tastes, such as those who are priceconscious or looking for high-performance automobiles. This strategy must include creating reasonably priced environmentally friendly cars, growing the infrastructure for charging them, and busting falsehoods about their capabilities.
3. The third recommendation is about reinforcing sustainability initiatives with regulatory support. The automotive sector should continue receiving government incentives and assistance for sustainable practices and goods. This might include creating a solid infrastructure for electric car charging, offering tax breaks to customers, and providing financial assistance to purchase environmentally friendly automobiles.
4. The fourth recommendation is about enforcing strict regulations to combat greenwashing. Regulators should enact and enforce strict standards requiring businesses to be truthful and honest in their sustainability marketing to combat greenwashing and foster consumer confidence. Deceptive marketing techniques need to result in harsh penalties.

Limitations

Recognising study limits is important because it highlights the restrictions and possible biases that could have affected the research process and conclusions. Several limitations of this research should be considered.

1. The study's primary emphasis was the UK car industry; therefore, its conclusions may not apply to other nations or areas with differing customer behaviour and market dynamics. Variations in culture, economy, and regulations may significantly impact consumer attitudes and sustainability-related behaviours.
2. The study drew upon existing literature and primary data sources, which may provide limits on precision and comprehensiveness.
3. Consumer surveys conducted inside the UK vehicle sector or industry-specific data from individual automotive businesses were not included in the study, which instead relied on aggregated data and

conclusions from many sources. Access to such information may have given researchers a more in-depth and sector-specific understanding of the subjects they were looking at.

4. The influence of sustainability programs on consumer behaviour over the long term was not thoroughly investigated in the study. It did not thoroughly survey how customer behaviour may change over time as sustainable policies become more embedded in the sector; instead, it mainly concentrated on immediate reactions.

5. Sample size: The larger the sample size, the better the research output. The size of the sample is one of the limitations of this study.

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