

Chapter 5: **Conclusion and Recommendation**

5.1 Summary of Research Findings

This research is crucial to understanding petroleum consumer behaviour in the selection of petrol and diesel distribution outlets. Our broad and thorough research has helped us understand the many elements that impact customer decisions and purchase behaviours in this critical field. In the petroleum sector, price elasticity demonstrates how much individuals are ready to spend for gasoline given their budget. Consumers comprehend gasoline price changes and purchase at the advertised price (Harini *et al.*, 2023). In an increasingly competitive industry, retailers struggle to maintain a smart price structure to attract and keep consumers. Retailers must also provide low gasoline costs and clear pricing to attract price-conscious shoppers.

As per Hamilton *et al.* (2019), besides pricing, people appreciate value-added services when purchasing gas and diesel. Services like personalised client encounters, service efficiency, and energy amenities are examples. Value-added services like welcoming clients on-court, washing windscreens, and oil changes boost customer satisfaction and differentiate in a competitive industry. Such services may differentiate brands and stores and leave a lasting impression on consumers.

Product quality and business image are the two major elements influencing petroleum customer choices. Nowadays, consumers have greater power and knowledge when picking products and shops. Consumers choose petrol and diesel stations based on honesty, reliability, and continuous high product and customer service standards (Hoskins, Verhaal and Griffin, 2020). Retailers must construct their corporate identity and maintain excellent product quality to build strong customer relationships and gain their confidence for years to come. The study also shows how these elements interact to influence customer behaviour. Although each has its own influence on customer choices, their combined effect is far higher and shapes the brand's long-term reputation. To stay relevant, retailers should combine their goals and

operations into a mutually reinforcing strategy that meets customers' shifting demands.

As stated by Jung and Heo (2019), this study's findings are relevant to industry stakeholders, policymakers, and researchers. These tips help shops revamp marketing, service, and customer experience. Economists may utilise these data to suggest petroleum industry competition and innovation strategies. As a driver for consumer choice and market dynamism, policymakers assist the petroleum market throughout important transitions and opportunities.

To conclusion, this study's final analysis improves our knowledge of petroleum consumer behaviour. This study on price sensitivity, value-added services, business image, and product quality may help strategic planning and petroleum market sustainability.

5.2 Linking with Objectives

Objective 1- To examine the role of price sensitivity in influencing consumers' choice of petrol and diesel outlets, including the extent to which fluctuations in fuel prices impact consumer behavior and purchasing decisions.

This objective involves thorough research on how price sensitivity affects the choice of petrol and diesel outlets. It is an analysis that required understanding how fuel prices affect the consumer's purchase behavior (Janzer, 2020). This objective seeks to identify the complex interplay between the numerical effects of changes in fuel prices and the opinions of consumers using the combination of quantitative analysis and qualitative data from interviews and questionnaires. In addition, it attempts to explain the variables between price sensitivity and consumer behavior such as income, location and brand among others.

As per Khalayleh and Hawary (2022), to achieve this goal, the research will analyze consumers' perception of fuel prices and buying behavior. The study will help in understanding and predicting the degree of price sensitivity on the desired selection of consumers by studying their perceptions and behaviors towards prices of different prices within the petroleum sector. Besides, it also intends on demonstrating how customers sacrifice price and other attributes for

petrol and diesel retail firms. Further, this objective will attempt to establish the impact of changes in retail prices based on changes in fuel prices. It will answer how price promotions, discounts, and loyalty programs affect the consumer behaviour and market share. The purpose of this research is to determine the right pricing strategies for the consumers and provide recommendations to the retailers on how to set prices which are advantageous for the consumers as compared to the competitors (Kucharczuk, Oliver and Dowdell, 2022). However, this objective is aimed at equipping students with knowledge concerning the elasticity of demand for petroleum products. It relates fuel prices to changes in consumer behavior and attempts to provide useful information for those retailers and policymakers who are involved in the industry.

Objective 2- To evaluate the significance of value-added services offered by petrol and diesel outlets, such as on-court greetings, windshield cleaning, free air, water, oil change facilities, etc., in attracting consumers and fostering brand loyalty.

As per Kingsnorth (2022), this objective is concerned with evaluating the proposition that the value added services offered in the petrol and diesel stations help in attracting customers and enhancing brand loyalty. It includes understanding the impact of such services as on-court greetings, windshield cleaning, free air, water and oil change facilities on the consumers' perception and preferences. To accomplish this, the research will employ both primary and secondary data collection techniques to gather data from consumers, retailers and industry stakeholders. Some of the research techniques that will be used to collect data on consumer awareness, usage and levels of satisfaction on value-added services include surveys while data on motivations and attitudes will be collected through in-depth interviews. In addition, there can be situations when experiments can be conducted where the behavior and their interaction with value-added services can be observed.

By analyzing the collected data with the aim of identifying the predictors of consumers' willingness to pay for value-added services and their impact on customer satisfaction and loyalty in overall. It will also explain how value-added services influence consumers selection criteria for a petrol and diesel outlet and will also make recommendations on how the retailers can apply the various value-added services successfully in order to gain competitive edge over the competition. Specifically, this objective will assess the impact of value-added services on brand image and commitment. The study is an attempt to examine systematically how brand attitudes towards petrol and diesel stations are influenced by the delivery of value- added services (Kotler, Kartajaya and Setiawan, 2021). Hence, the goal of this objective will be to establish the significance of value-added services in the petroleum industry and its impact on consumers' behaviour and brand choices. The examination of consumer behaviour and market trends provides practical advice on improving service and retail customer happiness and loyalty.

Objective 3- To analyze the influence of corporate image on consumers' perceptions and preferences regarding petrol and diesel outlets, including the impact of brand reputation, trustworthiness, and social responsibility initiatives on consumer behavior.

The aim of this objective is to ascertain how corporate image affects the consumer's perception and preference for petrol and diesel stations. It encompasses the general assessment of various factors that characterize a brand of an organization, the reliability of the brand and the impact of CSR on consumers. In this case the research will include survey data and interview with consumers and industry experts and retailers. To determine the perception that the respondents have about the brands and reputations of various petrol and diesel stations that they use surveys will be employed. Interviews: Interviews should be helpful as it is possible to understand the perception of consumers on how they prefer corporate image in petroleum industry.

As stated by Lee and Yi (2019), this objective follows the process of analyzing the collected data to identify the essential contributing factors to corporate image and consumer perception. It will try to illustrate the role of brand image, trust and corporate social responsibility in the purchasing choice of petrol and diesel stations. It will also try to determine whether corporate image influences brand commitment and relationship in the oil industry. Additionally, this objective will seek to explain how retailers can enhance their branding and gain trust from clients to market their products. It also has the objective of identifying the companies and initiatives that have been able to achieve brand and reputation management and how this could be possible for the retailers in order to achieve the creation of a corporate image differentiation from the other competition firms. In general this objective seeks to elaborate the relationship between corporate image and consumer behavior in the petroleum sector. It is particularly cognizant about how the corporate branding strategies of retailers shape the perceptions and choices of consumers and how this awareness can be leveraged in the design of strategies that will facilitate lasting market growth and success for the businesses.

Objective 4- To assess the importance of product quality in shaping consumers' purchasing decisions, including the role of fuel purity, performance, and reliability in driving consumer satisfaction and loyalty.

This question is necessary to demonstrate how product quality relates to the purchase decision in the case of petroleum. This includes fuel types to performance to the effect on customer satisfaction and customer loyalty.

To achieve this the study will employ a quantitative survey and qualitative methods from the customers, industry experts and retailers. A questionnaire will also be used to assess the reliability of product quality expectation on petrol and diesel fuel (Lopes and Casais, 2022). Other qualitative research techniques such as depth interview may also be useful in

establishing the consumers' perception of the quality of the good and how this will influence their purchase decisions. The purpose of this is to know the quality and preferences of the product among customers. It will endeavor to understand how gasoline quality, quality, and reliability relate to customer satisfaction and brand commitment in the petroleum industry. It will also identify the connection between product quality and the brand image and between the customer loyalty and the merchants to achieve competitive advantage. This purpose will also pay attention to how merchants can improve or improve the quality of their products and services. The importance of this study is that it offers some possible strategies for enhancing quality control and quality assurance processes as well as the process of guaranteeing product quality and customer retention and satisfaction. Finally this purpose is intended to demonstrate how quality of product plays in the petroleum industry, consumer behavior and brand commitment. It examines consumer intentions and perceptions and provides practical ideas to implement for retailers in a crowded retail environment to make better purchase decisions and enhance customer satisfaction and loyalty.

Objective 5- To understand the implications of market dynamics, including competitive forces, regulatory frameworks, and technological advancements, on consumer behavior and market trends within the petroleum sector, and to examine how these dynamics impact retailers' strategies and policymakers' interventions.

As per Latkin *et al.* (2021), this objective is to understand how competition, regulations, or technological changes may impact the buyers' behavior or the overall market performance in the petroleum market. This encompasses investigating how these factors affect the approaches of the retailers and also that of the governments as far as their policy initiatives are concerned and how these impact the consumer decision and the patterns in the market.

The research will be in a position to achieve this objective by conducting a review of the following industry reports, policy documents and expert interviews to understand the various

factors that would influence the behavior of the market in the petroleum sector. Next, it will examine different trends in the demand for fuel itself, the supply chain, the pricing mechanisms, and the legal framework to analyze how these forces can impact the customer behavior and the overall market trends. The eco factor will also be covered in this study to present information regarding technological shifts regarding EV and alternative fuel vehicle behavior and trends. This objective will be achieved by conducting a careful and systematic review of the collected data in order to define the effects of the changes and trends in the market for the retailers and policymakers in the petroleum sector. It will explain how the forces of competition and technological factors and to a degree regulatory environment influence the strategies of retailers such as pricing policy, brand management and services. Further it will look at how and to what extent policy intervention regulates and influences the trends in the market and how the trends influence the participants in the industry and vice versa. Furthermore, this objective will provide an understanding of the methods for empowering retailers and policymakers for better understanding of market strategies and work towards long-term development of the petroleum industry (Leung, Gu and Palmatier, 2022). The report offers valuable information on market trends and opportunities to assist industry stakeholders to cope with developing changes in the energy market. The purpose of this paper is to demonstrate how market forces shape petroleum consumer behavior and trends. In this case, industry trends and policy frameworks may be employed to discuss how retailers and policymakers can strategize the change and facilitate the development of the sector in a sustainable manner.

5.3 Recommendations

Recommendations for Retailers

- **Enhancing Value-Added Services**

As per Carthy *et al.* (2019), petroleum merchants may overcome hurdles and gain competitive

advantage from customer requirements by increasing sales. In a highly competitive automobile market where brands are fighting to get customers through distinguishing their products, it is no longer enough to just sell fuel. It entails – offering customers an enriched experience through convenience, reliability and personalized services which create loyalty and repeat sales. managing value-added services: One of the important aspects of improving value-added personalization is personalization of services. Retailers can

adopt the use of e-commerce tools like data analysis and CRM to determine how customers view products and their spending habits. With help of transaction logs, profiling usage as well as geo-demographic details, retailers can enable them to understand the needs and profile of their customers uniquely. Sending promotions and product suggestions based on the customer's purchase history and encouraging further shopping is one of the effective ways to consumerize a retail brand. Another of the most important needs of value-added services is convenience that is important for retailers. It is possible to claim that the idea of Zen convenience stores will be beneficial for consumers because they will respond positively to the ability to purchase various products quickly (Moi and Cabiddu, 2021). It is certainly possible for the retailer to invest in various technologies these days to optimize the efficiency of the operations and minimize the customers' time each spends in a service or store.

Moreover, offering customers such attributes as clean bathrooms, bright facilities and enough parking lots enables to increase the overall convenience of the operation and thus to create a favorable impression.

To conclude, improving the value that transacted services offer is a crucial competitive edge that retailers in the petroleum sector must leverage to serve the changing needs of customers. Through personalization, convenience, and efficiency and additional services, the retailers can offer a steal to the customers aimed at sustainable growth. In order to become more engaged in the process of retailing, the organizations can consider fueling consumers' needs and other

changing trends in the fuel stations.

- **Building a Strong Corporate Image**

According to Dudic (2020), petroleum product sellers need advertising and promotion to develop brand and product awareness, consumer trust, and brand loyalty. Corporate uniqueness sets a shop apart from competitors and boosts brand image. Retailers may do this by positioning their fundamental business traits, fulfilling more promises, and being responsible to market stakeholders. Reflecting consumer-friendly fundamental principles is crucial to business image creation. Retailers should demonstrate their honesty, openness, and commitment to consumer value and happiness in their messages and activities. Add value to a brand by connecting it to customer values, which builds trust with consumers. In conclusion, petroleum product sellers must spend in corporate image to acquire customer confidence and develop long-term relationships. Secondary source analysis showed that retailers build trust by communicating their values, demonstrating reliability, and upholding ethical business practices, which helps them stand out from competitors and gain consumer trust (Moran *et al.*, 2019). A company may leverage its corporate image to increase customer loyalty, brand power, and retailer sustainability.

Recommendations for Policymakers

- **Promoting Competition and Innovation**

According to Mehralian and Khazaei (2022), governing authorities have a critical mandate in ensuring that the petroleum industry is keen on fostering the competitive and innovative nature of the market. In doing so, policymakers may need to put in place policies that will facilitate changes in the regulatory processes and norms that seem to hinder new entrants into the market. Policy makers have a role of encouraging healthy competition among the business operators which is advantageous to both the consumers and operators in-terms of improved efficiency and innovation.

- **Incentivizing Sustainability**

It is therefore highly imperative to lobby for sustainability-related financial policies such as investing in and subsidizing renewable energy technologies, as well as sustainable practices in the petroleum sector. Some examples of such encouragements include: providing tax relief for adopting green technologies and practices and giving subsidies and grants for implementing environmentally friendly energy systems (Nazar and Pieters, 2021). Further, measures aiming at energy efficiency and emission reduction can play an additional role in environmental protection and reducing the harmful effects of the industry on the climate.

Fostering Consumer Choice and Market Dynamics

As stated by Niu *et al.* (2021), politics affect petroleum industry competitiveness and consumer behaviour. They are powerful and their decisions affect industry players, society, and the planet. Policymakers must promote consumer choice and market dynamics in the petroleum industry without reducing market efficiency or customer welfare. Policymakers should focus on enabling customers to make educated purchases. This requires stronger norms that promote transparency, accountability, and information exchange. Regulations may mandate fuel pricing and quality information to be given to customers so they may compare goods and make educated decisions. Other regulations that limit misleading advertising and encourage enterprises to describe their goods honestly may also boost customer trust in the market. Politicians should prioritise measures that promote market competitiveness and remove market manipulation (Purcarea, 2019). Consumers are damaged by collusive price-fixing cartels that eliminate competition and penalise exceptional performance. Thus, policymakers must monitor and enforce antitrust laws to promote fair market competition.

When policymakers support competition, businesses innovate and improve product quality to provide competitive pricing that benefits customers and increases market efficiency.

According to Putra *et al.* (2020), while consumer choice is important, the government and politicians must also safeguard customers' quality and safety. Fuel quality, emissions, and safety requirements must be followed to safeguard consumers and prevent delivering them low-quality items that aren't worth their money. Industry leaders have created and implemented strong public health and consumer rights standards. This may involve regular inspections and monitoring, sanctions for defaulters, and consumer redress. Additionally, petroleum-based technologies and technical progress must be promoted. Renewable fuels, electric cars, and improved biofuels are revolutionising the energy industry and moving away from fossil fuels

5.4 Research Limitations

Sample Size Constraints

Another primary weakness highlighted focuses on the sample after which data was collected. Financial considerations and access problems ultimately may have had an impact on the study by limiting the researcher's options to a smaller and less diverse sample population (Papagiannis, 2020). A smaller sample size increases the risk of such a study, meaning that the findings might not generalize to the entire population of consumers in the petroleum sector. There is limited statistical power in findings from a given sample size and such results may not accurately portray the behaviors or preferences of a broader range of consumers. For instance, when the sample size for a research is small, some demographic population groups may be left out and this may result to inadequate or even biased information or results. Also, if there is little variability within the sample, it could lead to spurious results and findings from the research will most likely offer narrow insights into consumer

Geographical Scope

As stated by Rather and Hollebeek (2021), the geographical element, which may have applied to particular sections of the country or a place, is a research restriction. The current study

examined customers' petrol and diesel buying preferences in Vadodara and the neighbouring regions. Comparison to 'comparable' nations: A geographic emphasis might limit the generalizability of results to a larger area or environment with a distinct economic profile and market structure. A research may not apply to other locations or countries due to varied client patterns, market circumstances, and legislation. Therefore, the research should not be generalised since the findings may not apply to present situations. Contextual

considerations like the geographical scope may also impact the study's generalizability since the view result may not exactly represent consumer behaviour in other places. Future study should sample more regions and populations to improve external validity and comparability across regional inequalities and socio-economic situations. Ego-centric behaviour research can be conducted on a larger scale to account for geographical differences among consumers, identifying similarities and differences in behaviour across locations and ensuring that observed patterns of behaviour are applicable and relevant.

Data Availability

The issue of data access and quality also are considered as weaknesses to this study. The research findings in the petroleum sector may seem easy to obtain but it can be difficult because some information are at times proprietary and the use of secondary data sources. Limitation of the research The limitation of the research may have been in the availability of data in regard to the purchaser, market trends and the industry in general. Lack of data in some aspects or having only part some of the required data can significantly hamper the analysis and cannot provide an adequate number of conclusions from the research (Raiter, 2021). Furthermore, data quality problems like data errors or mistakes in the data, can also bias or contaminate the data and lead to inaccurate or significant results. In particular, data derived from secondary sources may not be up to date, lack comprehensiveness and are often prone to sampling related problems that render the results unreliable and irrelevant to the population

under study. Future research should seek other ways to acquire data and alternative data sources in an exhaustive and inclusive way to address these limitations. It is possible to increase the faithfulness and credibility of the analysis in the research method by using a number of data sources and advanced data verification methods.

Implications for Generalizability and Robustness

As per Robertson, Hamilton and Jap (2020), given the aforementioned, the findings may not be generalizable or replicable. The research found that consumer behaviour in the petroleum industry in the specific environment would be substantial but not generalizable, therefore it may not represent the larger community or be transferable. Such studies are limited to a certain geographical region or data sample, therefore they cannot be applied to the whole population. Thus, using the research in different circumstances should be done with care to avoid extrapolating the study's findings. If the research has framework biases, data presence, or methodological issues, its conclusions may not apply to many populations. Future research should enhance study design methods to address these constraints and increase research rigour and accuracy. With rigorous quantitative research and techniques to minimise bias and error, greater research outputs may directly guide practice and narrow the theory-practice gap.

5.5 Future Scope of the Study

The massive culmination of this study not only delivers considerable knowledge on the type of consumption behaviour within the petroleum segment but also paves the way for future researches. The study is, therefore, able to trace and highlight areas where more research is necessary and contributes to the greater progression of knowledge in the field of energy economics, consumer-related consumer preferences, and the petroleum market (Rowles, 2022). In this part we elaborate on possible future research areas and discuss some of the impacts of emerging trends and practices on the petroleum sector.

Impact of Technological Disruptions

As per Soule *et al.* (2019), technological innovations are fundamentally changing the petroleum industry, and are contributing to changes in the industry. Technologies such as AI, Big data, and Autonomous are changing the traditional way of producing and transporting gas. Further researches in these topics will be very beneficial because they aim at understanding how these technologies will influence consumers' behavior, market and industry structure. For example, the implementation of digital technologies and smart sensors for the fuel retailing industry can be useful for attracting more customers and automating the resource management process. Innovations in the retail industry allow retailers to address their customers by targeting them with specific offers on certain items depending on their preferences and behaviors. In addition, automation and data analytics could help enhance product availability, item pricing, and the supply chain process to increase business profitability and competitiveness.

Researchers should conduct more detailed analyses that focus on consumer behaviour after such a change occurs to identify effective strategies that retailers can use to establish competitive advantage.

Regulatory Changes and Policy Interventions

Policies and regulations have immense value in transforming the future of petroleum sector as the government can easily modulate the behavior of its consumers as well as the mode of operating within the market. The global economies have been adopting different policies on improving the environment, enhancing energy security and moving towards low carbon energy systems (Steinfield *et al.*, 2020). Future scholars in this field will seek to investigate the impact of these changes to the current regulatory policies on consumer behavior; rivalry; and concentration in the industry. For example, carbon pricing, fuel-efficiency standards and renewable mandates are very efficient in influencing consumers' choices towards the petrol

and diesel outlets. These policy interventions influence the demand for consumer consumption patterns of the consumption patterns and also market forces on the use of more environmentally friendly vehicles such as electric vehicles or biofuels. Further-more, regulatory changes will affect retailers' decision-making and resource allocation for various reasons; for instance, they may encourage them to foray into new products, adopt cleaner technologies, or experiment with new models. Using the above strategy of assessing the impact of policy instruments on consumer behavior and market performance to reach conclusions on the role of policy instruments in the provision of food can provide rich insights to the policy makers and industry players. It is critical to grasp how regulatory changes intersect with consumer habits and market dynamics in order to cope with the uncertainties of the regulation and to foster the development of the petroleum sector in a more sustainable manner.

Socio-Cultural Factors and Consumer Preferences

Thus, understanding socio-cultural elements that influence petroleum sector customer desire and behaviour is crucial. Cultural norms and values, lifestyle choices, energy use, and sustainability influence which services customers use to purchase fuel and diesel or cook on gas or electricity. Further study will examine the socio-cultural, economic, and IT and regulatory legal factors that impact such consumer behaviours. Cultural variables including environmental protection, public transit, and alternative fuels might impact EV and cleaner energy acceptance. Sustainability and stewardship may influence people's choices to pump gasoline at petrol and diesel stations by influencing their choice of eco-friendly goods and services. The petroleum market may also be affected by how urbanisation and population ageing affect consumption patterns.

Cross-cultural comparisons and energy consumption characteristics may reveal consumer behaviours. Economic, technical, and regulatory factors must be examined with socio-cultural

impact to personalise marketing to diverse customers and offer governmental responses.

Emerging Trends and Disruptive Innovations

According to Simons (2019), the big issues and transformative technologies are definitely changing the energy and resources sector and creating a new world order that is inherently replacing the dominance of hydrocarbons as the main source of energy. Aspects like electric vehicles EVs, renewable energy penetration and decentralized power markets have changed the petroleum industry landscape and could be its future. Peoples' growing practices related to food consumption represent relevant contemporary trends that future research will need to consider as far as consumers, retailers, and policy makers as well as industry stakeholders are concerned. For instance, the massive shift toward electric vehicles could pose serious risks to the demand for petrol and diesel and will require forma shifts by red petrol/diesel marketers and regulatory agencies (Vrontis *et al.*, 2021). Another example would be the increased use of solar or wind power, which could change the formula for pricing fuel or even influence the way gas is distributed throughout the affected states

Integration of Sustainability and Circular Economy Principles

The adoption of sustainability and circular economy practices in the petroleum industry signifies a paradigm shift in the current operations to incorporate more sustainable and resource-saving processes. There are increasing fears about climate changes, resource depletion and the worsening environment and this forces the industry to determine more sustainable strategies thus adopting a circular economy approach (Sailer, Wilfing and Straus, 2022). Other related strand of future research in this area includes the current trends in the use of sustainability to change the behaviour of consumers, markets, and firms through initiatives such as carbon footprints, waste minimization, and resource recovery.

According to Tan *et al.* (2023), for instance, the growing desire of customers to care for the environment and their expectation of environmentally friendly products and services would

mean that retailers may choose to become more environmentally conscious and offer sustainable fuels. Students who wish to investigate the dynamics of the consumer behavior and the influence on the competitive advantage and the environmental sustainability by analyzing the rise of sustainability initiatives within the context of the petroleum industry. In conclusion it is clear that this study provides grounds for many opportunities for future research in terms of various aspects of consumer behavior, energy economics and the petroleum industry.