FACTORS INFLUENCING CONSUMERS' CHOICE OF RETAIL FUEL SERVICE STATIONS AMONG SELECTED OIL MARKETING COMPANIES IN LUSAKA, ZAMBIA

BY

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DECLARATION

I, Abby Pangani, do hereby declare that this work is my original work achieved through personal reading and research. This work has never been submitted to the University of Zambia or any other Universities. All sources of data used and literature on related works previously done by others, used in the production of this Dissertation have been duly acknowledged. If any omission has been made, it is not by choice but by error.

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ABSTRACT

The downstream petroleum retail sector in Zambia has become fiercely competitive with the mushrooming of oil marketing companies (OMCs) all vying for the same customer base in a market where fuel products are homogeneous, and prices are uniformly regulated. The limited differentiation has led to heightened consumer switching behavior, causing market share declines for many OMCs, threatening their long-term viability. However, the factors influencing consumer choice of fuel service stations in the Zambian context remain insufficiently understood, limiting the ability of OMCs to develop effective competitive strategies. This research aimed to determine the factors influencing retail consumers' choice of fuel service stations in Lusaka, Zambia to enhance their competitive edge. The specific objectives were determining products and services considered important at retail fuel stations; establishing primary factors influencing consumers' choice of fuel stations, and examining the degree of consumer loyalty to their preferred retail fuel station brand. The theoretical framework that underpinned this study was the Engel-Kollat-Blackwell (EBK) Model of the Buyer decision process, which provided an understanding of consumer behaviour. The study adopted a positivist philosophy and applied a quantitative approach, utilizing a cross-sectional descriptive research design. Primary data were collected from 440 motorists using a structured questionnaire, with the sample size determined by Yamane's formula. The study was conducted in the central business district of Lusaka, offering a diverse mix of fuel station brands and corresponding respondents. Data was analyzed using descriptive and inferential statistics with the aid of the Statistical Package for Social Sciences (SPSS) and Microsoft Excel. The findings reveal that consumers prioritize service stations offering supplementary services beyond fuel, including vehicle maintenance, convenience stores, food outlets, ATMs, pharmacies, and other value-added amenities. Moreover, the most influential factors driving consumer choice include service quality, location, brand image, promotional programs, and non-fuel amenities. These findings stress the need for OMCs to continuously enhance service quality, strategically optimize station locations, improve branding efforts, revamp promotional strategies, and expand non-fuel amenities to sustain competitiveness. By adopting these recommendations, OMCs can improve customer retention, differentiate themselves in a hyper-competitive market, and build long-term brand loyalty.

KEYWORDS*:* fuel service stations, consumer choice, marketing mix, non-fuel amenities, Oil marketing companies

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DEDICATION

This research is a dedication to my late mum, Emeldah Mukubi whose wisdom and inspiration continue to guide me.

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ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CBD	Central Business District
ERB	Energy Regulation Board
LPG	Liquefied Petroleum gas
OMC	Oil Marketing Company
UNCTAD	United Nations Conference on Trade Development
RTSA	Road Transport and Safety Agency
SPSS	Statistical Package for Social Sciences

CHAPTER 1: INTRODUCTION

1.0 Introduction

This is an introductory chapter providing an overview and a guide to the contents of the present study on factors influencing consumers' choice of retail fuel service stations operated by selected oil marketing companies (OMCs) in Lusaka, Zambia. OMCs are firms that sell and distribute petroleum products, predominantly fuel to retail and commercial customers through fuel service stations and strategic fuel depots, respectively (ERB, 2020). The Energy Regulation Board (ERB) manages the pricing and quality regulation of petroleum products in Zambia (Muyunda & Mukumba, 2020). The retail fuel pump price is uniformly regulated throughout Zambia (Masami, 2013). This chapter commences with the background of the study providing an overview and addressing the problem faced in the oil marketing retail sector. Subsequently, it outlines the research's aim, objectives, and research questions developed to address the issue. Moreover, the chapter highlights the study's significance to various stakeholders and defines the research's scope. Lastly, it outlines the synopsis of the entire dissertation and provides a chapter summary.

1.1 Background of the Study.

In the contemporary, hyper-competitive global business environment, the range of choices available to consumers has increased significantly. According to Wahab et al., (2016), this increase in alternatives has resulted in a rise in consumer switching behavior and a reduction in customer loyalty. This phenomenon is notably evident in industries offering homogeneous products, such as OMCs managing service stations that sell fuel to retail consumers seeking to refuel their motor vehicles.

The Zambian oil marketing industry has grown substantially (ERB, 2023). According to Mwenda and Oloko (2016), this rapid growth of OMCs empowers retail fuel consumers, offering them increased autonomy and choices when selecting fuel service station brands to refuel their vehicles. UNCTAD, (2011) adds that the oil marketing industry in Zambia has undergone an evolutionary journey triggered by the Liberalization agenda. This agenda was pivotal in fostering a surge of OMCs and fundamentally reshaping consumer choices within fuel service stations. According to UNCTAD, (2011), the liberalization of Zambia's petroleum retail sector in 2001 facilitated the entry of several OMCs. By 2013, only two OMCs, Puma Energy Zambia, and Total Zambia Ltd accounted for more than ten percent of the retail market share (ERB, 2014). According to ERB (2014), they held a combined market share of 54%. Today, the landscape has evolved, with the continued mushrooming of new OMCs leading to a shift in market dynamics. As of 2022, the combined market shares of these two OMCs dwindled to 37.9% (ERB, 2023). Odhiambo, (2018) posits that firms use market share as a criterion to assess the influence of their rivals on the market. At the end of 2022, the registered number of OMCs in Zambia was 138, and 506 fuel service stations (ERB, 2023). According to ERB, (2023), the top ten OMCs by market share operating these service stations include TotalEnergies Zambia Ltd, Puma Energy Zambia, Mount Meru Ltd, Vivo Energy Zambia, Rubis Energy Zambia, Oryx Energies Zambia Ltd, Spectra Oil Ltd, Lake Petroleum Ltd, Petroda Zambia Ltd, and SGC Ltd.

This complex interplay among historical shifts and market forces forms the backdrop for the present study. Through an exploration of these complexities, the study seeks to understand retail fuel consumer purchasing decisions as it explores why consumers buy what they buy, where they buy, and how much they buy. According to Das, (2012), heightened competition resulting from similar products and a growing number of brands vying for market share necessitates marketers to investigate the driving factors influencing consumers' choices and behavior in brand selection. Moreover, Manneh, et al., (2020), posits that understanding factors influencing consumer preference for fuel stations is essential in augmenting competitiveness and ensuring the long-term success of oil marketers. Thus, the study attempts to provide vital insights to OMCs, empowering them to enhance their value propositions, strengthen brand loyalty, and ultimately grow their market share amidst intensified competition.

1.2 Statement of the Problem

The liberalization of Zambia's petroleum sector post-2001 has led to rapid industry growth, with the number of oil marketing companies (OMCs) increasing from 33 in 2013 to 138 in 2022, and fuel service stations growing from 275 to 506 in the same period (ERB, 2014; ERB, 2023). This surge has intensified competition in a market where regulated pricing and product homogeneity limit differentiation. As a result, consumer-switching behavior has increased, resulting in market share declines for major OMCs (ERB, 2023). Dwindled market share reduces profitability and threatens the survival of less competitive players, as seen in the recent acquisitions of Samfuel and

Kobil by Rubis Energy Zambia (Zulu, 2021). In response to these threats, OMCs must understand and cater to consumer preferences effectively to ensure their businesses' long-term sustainability, ultimately growing their market share. Failure to address these factors could accelerate market share losses, reducing revenues and profitability (Odhiambo, 2018). Although numerous scholars have attempted to investigate factors that influence consumer choice of fuel stations in various countries, empirical research is scarce from the Zambian context. Moreover, multiple studies present conflicting results across countries regarding the importance of specific factors driving consumers' choices of fuel stations (Limo et al., 2014; Alvi et al., 2016; Mwenda & Oloko, 2016; Yabani et al., 2017; Inderadi & Setiadi, 2020; Prabumenang et al., 2020; Manneh et al., 2020; Tun, 2020; Purohit & Jain, 2021; Ogbunamiri & Agu, 2022; Urio & Mwakyusa, 2023). Consequently, a thorough analysis of this knowledge gap specific to Zambia is essential which this study aimed to address.

1.3 Research Aim

This study aimed to establish the factors influencing consumers' choice of fuel service stations in Lusaka, Zambia to offer OMCs a sustainable competitive edge.

1.4 Research Objectives

The following were the study’s research objectives.

1. To determine the products and services consumers consider important at retail fuel stations.
2. To establish the primary factors influencing retail consumers’ preferences for fuel service stations.
3. To examine the degree of consumer loyalty to their preferred retail fuel station brand leading to repurchase intentions.

1.5 Research Questions

The study sought to answer the following research questions:

1. What products and services do consumers consider important at retail fuel stations?
2. What primary factors influence the consumers’ choice of fuel service stations?

3. To what extent do fuel consumers remain loyal to their preferred fuel service station brand, leading to repurchase intentions?

1.6 Significance of the Research

The findings of this study expands the body of knowledge in consumer behavior, marketing, and retail management in the Zambian context. It provides insights into the driving factors of consumer preferences in fuel service station selection. Ultimately, it fills the current knowledge void and is a source of reference material for future studies. Moreoever, the findings could be informative to policymakers, particularly in the energy sector and consumer protection agencies. By having an understanding of the factors influencing consumers' decisions, they can guide the formulation of policies that enhance fair competition, consumer rights protection, and sustainability within the fuel retail sector. Lastly, insights gained from this study are valuable for oil marketing companies in the management of their fuel service stations. Understanding consumer preferences can help OMCs tailor their strategies, such as marketing campaigns, service improvements, loyalty programs, or diversification of offerings, to better meet consumer needs. This understanding can be instrumental in maintaining or increasing market share, enhancing customer satisfaction, and fostering brand loyalty.

1.7 Research Scope

The scope of the study investigated the factors influencing retail consumer preferences for fuel service stations with a focus on service quality, location, promotional programs, brand image, and non-fuel amenities. The study was conducted in Lusaka’s central business district (CBD), which features a diverse consumer base and range of fuel service station brands operated by various oil marketing companies, as outlined by ERB (2023), making it a suitable location for examining consumer preferences. The participants involved motorists frequenting retail service stations to refuel their vehicles. By leveraging the key factors influencing consumer choices of fuel service station insights, the study recommended the key focus areas for developing strategies aimed at offering a competitive advantage to OMCs. Lastly, the study span was approximately six months. This timeline encompassed various phases, including data collection, data analysis, dissertation writing, and journal paper publication.

1.8 Theoretical Framework

According to Ravitch and Carl (2016), the theoretical framework plays a pivotal role in conducting thorough research by presenting evidence of the pertinent structure existing within the researchers' domain. The theoretical framework that underpinned this study is the Engel-Kollat-Blackwell (EBK) buyer decision process Model. This Model was crucial to this study as it presented the fundamental principles of how consumers make decisions based on influencing factors that they assess (Tan, 2010). Kotler & Armstrong, (2016) posit that by understanding the buyer decision process model, marketers can develop an effective program to attract their target customers.

1.8.1 EBK Model of Buyer Decision Process

The Engel, Kollat, & Blackwell (EKB) purchase decision-making model is one of the core theories of consumer behavior that was developed in 1968 by researchers Engel, Blackwell, and Kollat and is still useful for marketers today (Mohanty, et al., 2020). The EBK model builds on consumer psychology theories and models developed by Howard (1963) and Nicosia (1966) and expounds on the consumer's decision process and how decisions are reached when choosing from available alternatives (Tan, 2010).

According to Kotler & Armstrong (2016), the buyer decision-making process consists of a series of steps consumers follow before making a purchase. Regardless of whether the buying behavior is complex or routine, consumers go through a standardized process. While every purchase involves five decision stages, routine purchases often lead consumers to skip or modify certain steps. Figure 1.8 illustrates the steps involved in consumer decision-making process.

Figure 1.8: Buyer decision model (Kotler & Armstrong, 2016)

The buyer decision process commences with the identification of a need or problem, which can arise from internal or external stimuli (Kotler & Armstrong, 2016). The internal stimuli relate to a consumer's inherent needs like hunger, while external stimuli encompass factors such as product price, value, advertising, brand recognition, and company identity. In the retail petroleum sector, this stage involves consumers recognizing the necessity to refuel their vehicles and visiting the service station. At this stage marketers must identify the customer requirements that generate interest or choice of a product or service. This understanding is pivotal in devising marketing strategies that trigger consumer interest and lead them into the second stage of the buying process.

The second phase of the purchasing process involves consumers seeking information. When purchasing goods or services, customers often recollect their past thoughts about a product. As Tan (2020) stated, if the previous experience was positive and fulfilling, the consumer proceeds with the purchase, concluding their quest for information. Conversely, if the experience is unsatisfactory, the customer initiates a search for information about alternative products or services. In this stage, consumers in the retail fuel sector start seeking information about various brands of fuel service stations.

After completing the information search and gathering essential data, the consumer proceeds to the third stage, which involves comparing different brands. During this stage, the consumer evaluates their choices based on factors such as price, product quality, convenience, or any other relevant factors (Kotler & Armstrong, 2016). Subsequently, they rank the products or brands based on personal criteria to establish their preferences. During this phase, preferences are established, leading to the eventual decision-making process.

The fourth stage involves the consumer making the purchase decision. They expect that the purchased item meets their needs and desires. Should the product or service fail to fulfill these expectations, the consumer might experience regret and commonly share their experiences with others (Faith and Edwin, 2014 as cited in Ahmed, 2022).

The last stage of the purchase decision process involves the post-purchase behavior, which is shaped by whether the customer feels satisfied or dissatisfied. Understanding customer attitudes arising from satisfaction or dissatisfaction is crucial for organizations, as satisfied customers are more likely to exhibit loyalty by making recurring purchases of the same brand in the future.

Notably, the EBK decision process model is not without criticism. Its shortcomings are evident in its assumption that consumers make rational decisions and logically evaluate products or services

(Mweemba & Mweshi, 2022). Additionally, the model overlooks the phenomenon of impulse buying among consumers.

1.9 **Conceptual Framework Development**

A conceptual framework, according to Miles & Huberman, (1995), refers to a structure that explains the fundamental things to be studied and the key factors, concepts, or variables; and the presumed relationships among them. Based on the research objectives and the reviewed pertinent literature, the conceptual framework shown below was developed to expound on the presumed relationship between the independent variables (service quality, fuel station location, promotional programs, brand image, and non-fuel amenities) and the dependent variable (consumer choice) affecting retail fuel preferences in Lusaka, Zambia.

Independent variables   Dependent variable

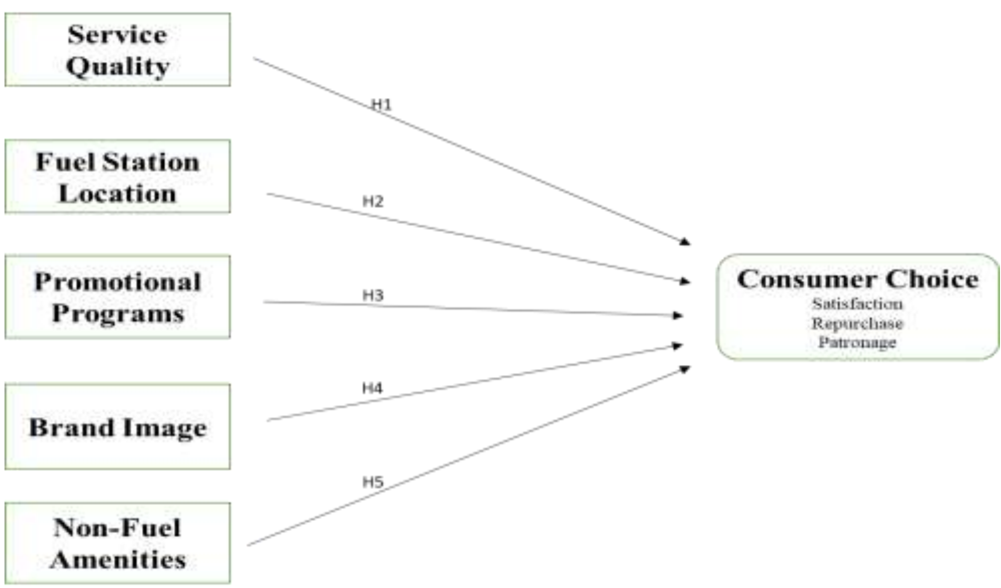

Figure 1.9: Conceptual Framework (Author, 2024)

1.9.1 Research Hypotheses

The research hypotheses below were proposed temporary solutions to the study's problem. In this case, the null hypothesis was that the independent variables have no significant positive influence on the dependent variable.

H1: Service quality has a significant positive influence on consumer choice of a fuel service station.

H2: Fuel station location has a significant positive influence on consumer choice of a fuel service station.

H3: Promotional programs have a significant positive influence on consumer choice of a fuel station.

H4: Brand image has a significant positive influence on consumer choice of a fuel service station.

H5: Non-fuel amenities have a significant positive influence on consumer choice of a retail fuel service station.

1.9.2 Operationalization of Study Variables

The relationship between Service quality factors and customer's choice of a retail fuel service station.

The provision of service quality at fuel stations encompasses various components that shape customers' satisfaction and overall experiences. Research conducted by Limo et al. (2014), Mwenda & Oloko (2016), Mulenga (2019), Inderadi & Setiadi (2020), Lolo (2020), Purohit & Jain (2021), and Urio & Mwakyusa (2023) highlights a consistent positive relationship between consumers' perceptions of service quality and their choice of a fuel service station. These studies emphasize that consumers prioritize fuel stations based on their ability to offer reliable, efficient, and dependable services, including prompt fuel dispensing, excellent customer service, cleanliness of attendants, and overall station maintenance. They suggest that maintaining high service quality is crucial for retaining retail fuel consumers, building a positive reputation, and significantly impacting consumers' preferences and decisions concerning fuel stations. To investigate the relationship between service quality factors and retail consumers' selection of a fuel service station in Lusaka, Zambia, the study tested the following hypothesis: Service quality has a significant positive influence on consumer choice of a fuel service station.

The relationship between Fuel Station location factors and customer's choice of a retail fuel service station.

The location of service stations plays a critical role in influencing consumer choices and preferences. According to Ogbunamiri and Agu (2022), a strategic location of a fuel station guarantees enhanced visibility, resulting in a steady flow of customers. Consumers often opt for stations that are easily accessible, strategically located along their routes, or in proximity to their residences or workplaces (Pileliene & Bakanauskas, 2014: Mwenda & Oloko, 2016: Xavier, et al., 2022: Urio & Mwakyusa, 2023). Therefore, to investigate the influence of a Fuel Station location on consumer choice of retail fuel service stations in Lusaka Zambia, the study tested the following hypothesis: Fuel station location has a significant positive influence on consumer choice of a fuel service station.

The relationship between Promotional program factors and customer's choice of a retail fuel service station.

Promotional programs within fuel station brands encompass marketing approaches and tactics aimed at attracting customers and boosting sales (Wahab, et al., 2016). Scholarly findings indicate that employing these strategies can result in heightened customer satisfaction, improved brand reputation, and increased sales. For instance, Mgiba & Madela's (2020) research conducted in South Africa delved into the impact of sales promotions, like loyalty programs, on customer satisfaction and repeat purchases, revealing their significant influence on fuel consumers. Similarly, studies by Mulenga (2019) and Yabani et al. (2017) individually underscored the effect of advertising and promotional initiatives on shaping consumer preferences for fuel stations. Thus, to test the relationship between promotional program factors and retail consumer choice of a fuel service station in Lusaka Zambia, the study tested following hypothesis: Promotional programs have a significant positive influence on consumer choice of a fuel service station**.**

The relationship between Brand image factors and customer's choice of a retail fuel service station.

As per Kotler & Keller (2016), brand image pertains to the perception, impression, or standing held by consumers regarding a specific brand or company. It encompasses the thoughts, emotions, convictions, and the association individuals attribute to a brand based on their encounters, interactions, marketing communications, and overall presence within the market. Scholarly findings presented by Mwenda & Oloko (2016), Tun (2020), Thanabordeekij & Syers (2020), Purohit & Jain (2021), and Urio & Mwakyusa (2023) highlight that a strong and favorable brand image can significantly influence consumer behavior, affecting their preferences, allegiance, and purchasing decisions, particularly in the context of retail fuel stations. To investigate the relationship between brand image and consumer choice of retail fuel service stations in Lusaka Zambia, the study tested the following hypothesis: Brand image has a significant positive influence on consumer choice of a fuel service station.

The relationship between Non-Fuel Amenities factors and customers' choice of a retail fuel service station.

According to Wahid (2009), the evolution of non-fuel facilities like convenience stores, car wash services, vehicle maintenance services, ATMs, pharmacies, and food outlets within fuel stations has significantly transformed, emerging as a prominent feature in most operational fuel stations. These convenience stores present an expanded product range, improved shopping environments, and additional services, aiming to enhance customer convenience and satisfaction (Wahid, 2009). Saini & Matinse's (2013) research highlights that consumers within the retail fuel sector tend to prefer service stations that offer a diverse range of supplementary products, services, and convenience facilities. Similarly, in a study focusing on factors influencing motorists' preferences for petrol stations in Kenya, Mwenda & Oloko (2016) discovered that the presence of convenience stores notably impacts consumer choices concerning retail stations. Therefore, to investigate the influence of non-fuel amenities on consumer choice of retail fuel service stations in Lusaka Zambia, the study tested the following hypothesis: Non-fuel amenities have a significant positive influence on consumer choice of a retail fuel service station

1.10 Outline of the Dissertation

This dissertation consists of seven chapters briefly highlighted as follows:

The second Chapter is the Literature Review and it delves into past pertinent studies and empirical literature relevant to addressing the research problem and the set objectives.

Chapter 3 addresses the Research Methodology: It describes the research philosophy, research design and approach, sampling techniques and procedure, instrument validity and reliability, and data analysis and addresses the ethical concerns.

Chapter 4 is the Data Analysis and Presentation of Results: This chapter presents the findings of the results obtained from the descriptive and inferential statistics of the collected data.

Chapter 5 is the Discussion of Results which delves into the discussion and interpretation of the findings of the study, their implication, and how they compare with other studies.

Chapter 6 concludes the dissertation and provides recommendations for the study based on the research findings in the earlier chapter. Additionally, it consists of the research contributions and implications, limitations of the study, and suggestions for future researchers.

1.11 Chapter One Summary

This introductory chapter outlined the study on factors influencing consumer choices at retail fuel service stations in Lusaka Zambia. It briefly discussed the impact of petroleum industry liberalization, which spurred the entry of numerous OMCs and intensified market competition, threatening long-term sustainability through market share dilution. To address this, three research objectives and questions were defined. The chapter emphasized the study's relevance to OMCs, policymakers, and researchers, and its contribution to existing knowledge. It also introduced the EKB model, detailing the five consumer decision-making stages, and presented the conceptual framework guiding the study's hypotheses. The next chapter reviews relevant empirical literature to support the study's objectives.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter explores the literature relevant to the study's aim of establishing the primary factors influencing consumer choice of retail fuel service stations among selected OMCs in Lusaka, Zambia. It provides a theoretical foundation by critically analyzing literature that addresses the research questions from the previous chapter. The chapter is organized into sections and subsections, each focusing on specific aspects that contribute to a comprehensive analysis of the literature.

2.1 Oil Marketing Companies

Petroleum products hold a pivotal position in driving Zambia's economy, serving as the primary energy source across various sectors (Muyunda & Mukumba, 2020). The Ministry of Energy manages the procurement of petroleum products whereas the ERB oversees the uniform retail pricing and quality regulation (Muyunda & Mukumba, (2020). These petroleum products include diesel and petrol herein referred to as fuel, lubricants, Jet-A1, and Paraffin (ERB, 2023). According to Muyunda & Mukumba, (2020), the petroleum industry's value chain encompasses distinct stages referred to as upstream, midstream, and downstream activities. Upstream activities refer to those situated at the initial phase involving exploration and production stages whereas Infrastructure, such as pipelines, transportation networks, and storage facilities make up the midstream segment. However, Zambia currently has neither upstream nor midstream activities (ERB, 2020). The downstream activities are composed of OMCs, involved in distributing and retailing finished petroleum products to the end consumers through their service stations (ERB, 2022). Ayodele (2011) cited in Taylor, et al., (2016) attempted to define a fuel service station, incorporating various terms such as Filling Station, Petrol station, gas station, or petroleum outlet. It refers to any land, building, or equipment utilized for the sale or dispensing of fuel or lubricants for motor vehicles, or associated activities. This definition includes the entirety of the land, building, or equipment, irrespective of whether the primary use is as a fuel station or merely a part thereof (Ayodele, 2011).

2.2 Retail products and services offered by oil marketing companies.

Oil marketing companies offer a range of retail products and services related to fuel and convenience through their network of fuel service stations. Among the assortment of offerings are diesel and petrol fuels, convenience stores or Minimarts, liquified petroleum gas (LPG), Kerosene or paraffin, automotive products, car wash facilities, vehicle maintenance services, ATM/banking services, food and beverage outlets, pharmacies, tire air pressure stations, electric car charging points, and the integration of digital payment methods (Mwenda & Oloko, 2016; Petra et al., 2017; Thanabordeekij & Syers, 2020; ERB, 2023; Dimoso 2024). This wide array of services caters to the varied needs of customers, providing convenience and a multitude of choices for motorists seeking fuel, vehicle servicing, or other supplementary supplies and amenities during their visit. Further details about these offerings are outlined below:

2.2.1 Fuel Products

The primary offering of fuel service stations encompasses various fuel types, including petrol, diesel, and occasionally alternative fuels such as ethanol or biodiesel, offered in varying octane ratings or formulations (ERB, 2023).

2.2.2 Convenience Store Items

Fuel service stations commonly feature convenience stores that stock various products, including snacks, beverages, newspapers, magazines, packaged foods, and basic groceries (Saini & Matinise, 2013 : Mwenda & Oloko, 2016:).

2.2.3 Automotive Products

Most fuel stations retail a selection of automotive-related items such as lubricants (coolant, motor engine oil, brake fluid, transmission oil, etc.), grease, car batteries, and an assortment of car care products like car wax, car perfume, and cleaning solutions (Petra et al., 2017).

2.2.4 Vehicle Maintenance Services

Some filling stations have attached auto shops or service centers offering services ranging from oil changes, filter replacements, and tire rotations to more comprehensive diagnostics, major repairs, parts replacement, and expert advice on vehicle maintenance (Petra et al., 2017).

2.2.5 Liquefied Petroleum Gas (LPG)

Certain fuel service stations provide LPG in refillable cylinders, primarily used for household cooking or heating, revolutionizing traditional domestic fuels such as firewood and charcoal (Thanabordeekij & Syers, 2020).

2.2.6 Car Wash Services

Some fuel service stations offer automatic or manual car wash services, providing exterior cleaning, interior vacuuming, and detailing services (Mwenda & Oloko, 2016).

2.2.7 Miscellaneous Amenities

Fuel service stations may provide supplementary amenities like clean restrooms, air compressors for tires, pharmacies, ATMs, charging stations for electric vehicles, or recreational facilities for travelers (Wahid & Saad, 2017). Furthermore, Mwenda & Oloko, (2016) found that consumers prefer fuel service stations that provide various digital payment systems, offering faster, more convenient, and more secure transaction options.

2.3 Empirical Reviews on Factors Influencing Consumer Choices of Service Stations.

The following section elucidates the factors driving consumer choices of retail fuel service stations across different countries. This section will examine some studies from around the globe, Africa, and Zambia.

2.3.1 Global Perspective on Factors Influencing Consumer Choices of Retail Fuel Stations.

Indonesia & Myanmar

In Indonesia, Prabumenang et al. (2020) found that brand image and trust did not impact customer satisfaction or repurchase intentions, which contradicts the findings of Tun (2020) in Myanmar, where brand image and trust were pivotal. The divergence in findings could be attributed to cultural differences or market maturity, suggesting that brand loyalty may have different implications depending on the geographical and socio-economic context. Both studies used cross-sectional surveys, which capture data at a single point in time, and cannot account for evolving consumer preferences.

Malaysia

Inderadi & Setiadi (2020) identified key factors influencing consumer decisions in Malaysia, including product quality, service quality, advertising, cultural values, and marketing strategies. However, the weight of these factors varied, with product quality being the most influential. These findings contrast with previous studies in Yogyakarta and Jakarta, Indonesia, where consumers deemed price promotions and location more critical. This suggests regional differences in consumer behavior and highlights the complexity of the Malaysian market. In another study conducted two years later in Malaysia, Xavier et al. (2022) supported this by linking service quality, convenience, and promotions to customer satisfaction, underscoring that multiple factors influence consumer choices in the fuel sector.

Lithuania

Pileliene & Bakanauskas (2014) found that perceived value, price, and location were key factors in Lithuania. However, they did not explore the relative importance of these factors in relation to consumer perceptions of quality or service. This study's emphasis on price suggests that Lithuanian consumers prioritize cost efficiency, but it overlooks the potential influence of brand reputation and consumer trust, which have been shown to be important in other markets.

India

To identify the consumer preferences in the Petro industry and their impact on customer buying decisions, Purohit & Jain, (2021), demystified consumer preference in Indian petro-retail. The study focused on nine variables including service quality, brand image, promotional programs, product variety, location, additional services, price, management of service stations, and technology adaptation. The research identified that fuel station management, price, and technology adaptation strongly correlated with consumer preferences in India.

2.3.2 Africa Perspective on Factors Influencing Consumer Choices of Retail Fuel Stations.

Kenya

Mwenda & Oloko, (2016), explored the determinants of motorists' choice of a petrol station in Kenya. Their study found that accessibility, service quality, promotions, and brand preference influenced Kenyan consumers' choices. However, they noted that regulated fuel prices minimized the role of price in decision-making. In contrast, Limo et al. (2014) highlighted the importance of relationship marketing, suggesting that customer loyalty could be enhanced by building trust and effective communication. The differing focus on customer loyalty and service quality in these studies suggests that while transactional factors matter, long-term brand engagement could be more influential.

Ghana

Yabani et al. (2017) showed that sales promotions are a significant driver of customer retention in Ghana. However, this finding might not apply universally across the region, as promotional strategies may vary in effectiveness depending on the specific market and consumer behavior. The study does not examine how consumers perceive value beyond promotions, an aspect that would enrich the understanding of fuel station choice.

Nigeria

Ogbunamiri & Agu (2022) identified all 7Ps (product, price, place, promotion, people, process, and physical evidence) as key factors in customer loyalty in Nigeria's fuel retail sector. This comprehensive framework helps contextualize factors driving consumer preference but may oversimplify the complexity of brand loyalty, as it assumes all variables are equally significant. The study's broad scope may overlook the nuances of consumer decision-making processes that vary by demographic factors.

Tanzania

Urio & Mwakyusa, (2023) surveyed the opinions of 150 drivers in Tanzania to examine the factors influencing consumers' choice of petrol filling stations. The results found that service quality, fuel quality, price, and brand influenced consumer choice in Tanzania, but the location did not, contradicting findings from studies by Yabani, et al., (2017), Mwenda & Oloko, (2016), and

Farizal & Putra, (2016). This difference could stem from regional variations in infrastructure or consumer priorities, suggesting that further research should explore how external factors such as urbanization and infrastructure development impact consumer behavior in different parts of Tanzania.

South Africa

In South Africa, Saini & Matinse, (2013) conducted an empirical investigation to understand the determinants influencing consumers' choices of service stations within the fuel industry. The study involved 349 participants who completed survey questionnaires. The study concluded that location is critical for South African consumers, with a growing preference for convenience and mobile payment options. These findings are supported by Mwenda & Oloko, (2016) who found integration of digital payment influencial in consumers's choice of station. Moreoever, Saini & Matinse, (2013)'s study conclusion on speed and convenience reflects a shift in consumer behavior, particularly in urban settings. However, their findings may not apply to rural areas, where other factors such as price or product quality may be more important.

2.3.3 Zambia Perspective on Factors Influencing Consumer Choices of Retail Fuel Stations.

In Zambia, there is limited research on consumer preferences for retail fuel stations, with a notable exception being Mulenga, (2019). This study focused on commercial consumers in Lusaka and found that service quality, brand preference, and advertising were key factors influencing their choice of fuel suppliers. While this study provides valuable insights into commercial consumer behavior, the scarcity of research on retail consumers leaves a gap in understanding broader consumer preferences in Zambia's fuel retail market.

2.4 Factors Consumers Consider Important When Choosing a Fuel Station

The following section expounds on the factors that could influence consumers' preferences for retail fuel service stations in Lusaka, Zambia. This will be accomplished by elaborating on factors highlighted in pertinent studies.

2.4.1 Location of Fuel Station

Fuel service stations are typically situated in major towns and metropolitan regions, particularly along railway routes where sales and profits will be maximized (Taylor, et al., 2016). Numerous researchers have determined that retail operations are greatly influenced by their location and this observation extends to the fuel retail sector as well (Boison, 2018). An easily accessible and strategically located service station often attracts more customers. Factors such as proximity to major roads, convenience, safety, surrounding infrastructure, and neighboring businesses can significantly impact consumers' decisions when selecting a service station (Mwenda & Oloko, 2016). A well-placed location can enhance convenience and accessibility, contributing to increased customer traffic and loyalty (Ogbunamiri & Agu, 2022).

2.4.2 Service Quality

The concept of service quality encompasses a service provider's ability to efficiently satisfy customers, leading to enhanced business performance with recognized positive impacts on profits, market share, and customer satisfaction (Ramya, et al., 2019). Service quality involves various dimensions: reliability, responsiveness, assurance, empathy, and tangibility, ensuring dependable service performance, prompt assistance, employee knowledge, personalized attention, and physical appearances reflecting service quality, respectively (Ramya, et al., 2019). Emphasizing service quality is crucial in the competitive service market, ensuring consistent service delivery and effective adaptation to changing customer expectations, ultimately securing a firm's survival and success (Ramya, et al., 2019).

2.4.3 Promotional Programs

Promotional programs encompass every means employed to communicate information about a product or service (Wahab, et al., 2016). As outlined by Kotler & Armstrong (2016), a firm's promotional mix constitutes advertising, personal selling, sales promotion, and public relations, forming a cohesive marketing communication strategy aimed at attaining its marketing objectives. Kotler & Armstrong, (2016) posit that advertising involves paid non-personal presentations promoting goods or services whereas personal selling utilizes oral presentations to drive sales and foster customer relationships. Sales promotion, on the other hand, offers immediate incentives to boost product or service purchases whereas public relations focus on cultivating positive relationships with stakeholders, securing favorable publicity, and managing unfavorable narratives to maintain a strong corporate image (Kotler & Armstrong, 2016). Thus, effective promotional programs can significantly influence consumer behavior and choices regarding which fuel station to patronize.

2.4.4 Brand Image

Kotler & Keller, (2016) characterized brand image as the perceptions consumers hold about a brand, encompassing the brand associations stored in their minds. Urio & Mwakyusa, (2023) outlined a brand as an identifying symbol, mark, logo, name, word, or phrase utilized by companies to differentiate their product from others. Cheung et al. (2016) and Foster et al. (2018) cited in Prabumenang, et al., (2020) further elaborated on three dimensions for assessing brand image. These dimensions encompass corporate image, which comprises associations consumers hold about the company producing a product or service. The second dimension is user image, consisting of associations consumers attribute to a product. Lastly, product image pertains to the associations consumers form regarding users employing a particular item or service. Furthermore, consumers often link brands with specific characteristics, and brand names can serve as indicators of product quality. However, most consumers find it challenging to evaluate product quality on their own, thus depending on brands as indicators for such quality (Pride and Ferrell, 2010). According to Mulenga, (2019), there's a belief that when presented with two products, one associated with a popular brand and the other less recognized, individuals consistently favor the widely known brand, presuming it to offer superior quality.

2.4.5 Non-Fuel Amenities

Non-fuel amenities at fuel stations refer to additional services or facilities beyond the provision of fuel that are offered to customers (Wahid & Saad, 2017). These amenities aim to enhance the overall customer experience and attract customers to the station. According to Saini & Matinse, (2013), they can include various conveniences such as restrooms, convenience stores or mini-marts selling snacks, beverages, and necessities, car wash services, tire inflating stations, ATMs, vehicle maintenance services, pharmacies, etc. These non-fuel amenities are designed to provide added value to customers, encourage longer stays at the station, and contribute to increased customer satisfaction and loyalty (Wahid & Saad, 2017).

2.5 Degree of Consumer Loyalty towards Retail Fuel Service Station Brands.

Consumer brand loyalty is characterized as a profound commitment to consistently repurchase or patronize a favored product or service now and in the future, leading to repeated purchasing of the same brand, even in the face of situational influences or marketing endeavors that might otherwise prompt customers to switch brands (Oliver, 1997). Similarly, Hwanga et al. (2021) describe customer brand loyalty as the harboring of positive sentiments and a strong dedication to continuously purchase the same product or service. Dhevika et., al. (2013) suggest that marketers actively seek methods to cultivate consumer loyalty because loyal customers display a reduced likelihood of switching brands and tend to make more purchases, thereby increasing sales volume and market share. According to Pritchard et al. (1999), customer loyalty holds significant importance in businesses as it assists organizations in developing strategies to deliver exceptional products and services to their customers. Against the aforementioned assertions, it is crucial to ascertain the level of consumer loyalty within Zambia's petroleum retailing sector. These findings would provide valuable information to oil marketing companies, guiding them on the indifferent behavior of retail fuel consumers and in devising necessary strategic interventions to improve and fortify brand loyalty. Moreover, brand loyalty leads to customers being willing to pay higher prices, which is considered a more efficient strategy than attracting new customers, consequently contributing to an increased market share when consistently favored by loyal consumers (Dhevika, et al., 2013).

In summary, the implication of high or low consumer brand loyalty toward retail fuel service station brands has an impact on market share, strategies for customer retention, and the significance of loyalty programs in fostering consumer allegiance to a brand. Therefore, having a comprehensive understanding of the degree of retail consumer loyalty to their preferred fuel service station will provide strategies that OMCs can adopt to enhance consumer loyalty and improve their competitive standing within the market.

2.5.1 Lessons Learnt from Reviewed Literature

The lessons from the reviewed literature reveal that despite extensive research across various countries, there is still a notable scarcity of the determinants influencing consumer preferences for fuel stations in Zambia. This suggests a significant knowledge gap. Moreover, various studies present conflicting results across countries regarding the importance of specific factors driving consumers' choices of fuel stations. As a result, a thorough analysis specific to Zambia is essential.

In alignment with the research objectives, the first lesson learned on the retail products and services provided by OMCs reveals that these firms offer various products and services, although most primarily focus on selling diesel and petrol fuel. Additional offerings include convenience store items, liquefied petroleum gas, kerosene or paraffin, automotive products, car wash facilities, vehicle maintenance services, ATM/banking services, food and beverage outlets, pharmacies, tire air pressure stations, electric car charging points, and the use of digital payment methods.

On the factors influencing retail consumer choice of fuel service stations, lessons learned point out these factors to encompass service quality, perceived fuel quality, fuel price in countries where it is not regulated, location of the fuel station, marketing initiatives and promotional programs, brand image, and non-fuel Amenities offered by oil marketing firms.

Lastly, insights gained regarding the significance of fostering brand loyalty among fuel service station consumers underscored the cost-effectiveness of preserving existing customers compared to acquiring new ones. Additionally, according to Dhevika et al. (2013), maintaining a mere five percent increase in loyal customers can elevate profits by 25% - 125%. Thus, establishing the extent of consumer loyalty can serve as a foundational aspect in devising loyalty initiatives aimed at customer retention.

2.6 Chapter Two Summary

This chapter reviewed the empirical literature relevant to achieving the study objectives. Further, it elucidated various concepts, operationalized the study’s variables and outlined the lessons learned from reviewed literature.

CHAPTER 3 : RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methodology of this study investigating the factors influencing consumers' choices of fuel service stations in Lusaka, Zambia. According to Rehman and Alharthi (2016), the methodology is a system of methods that prompts the researcher to choose the best way to study the world. In this chapter, the methodology encompasses the research philosophy, research approach, research design, target population and sampling frame, sample size, data collection instrument, and procedure, pilot and diagnostic tests, validity and reliability test, Normality test, data preparations, and analysis, and ethical standards adhered to in conducting the research.

3.1 Research Philosophy

This study was unpinned by the positivist research philosophy. According to Tumele, (2015), research philosophy is the researcher's concept of the nature of the universe and how it should be researched. Positivism is the belief that reality exists independently of humans and that researchers can observe reality objectively (Collis & Hussey, 2014). Consequently, engaging in positivist philosophical research facilitated a thorough comprehension of consumer behavior toward their choices of fuel station, separating the objectivity of quantitative data from the researcher's emotions.

3.2 Research Approach

According to Grue, (2015), the choice of a research approach, whether quantitative or qualitative, relies on epistemologically rooted beliefs. By the positivist research philosophy, this study employed a quantitative approach. As the study involved hypotheses testing, Antwi and Hamza, (2015) confirm the suitability of using a quantitative and deductive approach.

3.3 Research Design

The research design, also known as a research strategy, is a general plan on how to answer the research questions set by the researcher (Rahi, 2017). This study employed a cross-sectional descriptive research design. According to Siedlecki, (2020), descriptive research designs aim to describe individuals, situations, or phenomena by studying them as they are in nature and providing answers to questions about what, where, when, and how. Furthermore, a cross-sectional study was adopted over a longitudinal study due to its time and cost efficiency, as it collects data at a single point rather than over an extended period. Moreover, it offers immediate insights for oil marketing companies to develop competitive strategies.

3.4 Study Area

The study site was Lusaka's central business unit (CBD), offering a diverse mix of fuel service station brands managed by various oil marketing companies as noted by ERB, (2023), providing an ideal setting for understanding consumer preferences. Lusaka's diversity provided ample choices for consumers, contributing to a rich understanding of factors influencing their fuel service station choice.

3.5 Target population

According to Rahi (2017), a target population refers to a collection of all the people or items, known as elements that one wishes to study. The target population for this study was 695,740 motorists using the RTSA, (2023) estimated motor vehicle population visiting fuel service stations in Lusaka's CBD.

3.6 Sample Size

The study targeted a sample size of participants that could give a 95% percent level of confidence. Therefore, 400 respondents were determined from the target population using Yamane's formula (Singh and Masuku, 2014). An additional 10% allowance was considered, totaling 440 respondents.

$$\mathbf{n_0 = N / [1+N (e^2)]}$$

$\mathbf{n_0 =}$ 695,740 ÷ [1+695,740 (0.05^2)] = 400 +10% = **440 respondents**

3.7 Data Collection Instrument

Data was collected through primary and secondary data sources. Primary data was collected using a structured questionnaire that contained elements related to the research questions. The evaluation of each element was on a Likert scale to evaluate aspects of retail fuel consumer behavior and preferences. Rahi, (2017) points out that a survey questionnaire is ideal for quantitative research methods where the research work requires generalizing the findings of a sample to a whole population. There were at least three constructs on the scale items as recommended by most researchers (Manneh, et al., 2020). Further, secondary data was gathered through document reviews of journals, corporate websites professional magazines, research theses, reports, and books.

3.8 Potential Bias & Mitigation

According to Simundic (2013), bias is any deviation from accuracy in research that can lead to false conclusions. This study mitigated selection bias by sampling respondents from diverse service stations, locations, and times. Response bias was minimized through neutral, anonymous, and non-leading survey questions. Non-response bias was addressed by conducting face-to-face interactions with the 440 respondents.

3.9 Sampling Techniques

A simple random sampling technique was employed to select distinct fuel service station brands within 5km of Lusaka's CBD from which 440 motorists frequenting these stations were selected. This approach was designed to include a diverse spectrum of respondents/motorists associated with various brands.

3.10 Data Collection Procedure

The data collection procedure comprised approaching respondents at fuel stations after or before refueling, introducing the study, and administering the survey questionnaire. The structured questionnaire was used as it aligned with the study's quantitative approach, enabling efficient data collection, and ensuring objective, generalizable findings for drawing meaningful conclusions.

The questionnaire was administered to the respondents by the researcher and with the help of two trained research assistants. The questionnaire was in English and translated to a local language for respondents who did not understand it.

3.11 Pilot and Diagnostic Test

The questionnaire underwent pilot testing and involved 20 participants who owned vehicles. This test utilized a test-retest method to investigate the factors influencing their selection of a fuel service station, aiming to ensure the stability and consistency of responses over time. Conducting this test enabled the researcher to identify and revise any weak aspects of the questionnaire, ultimately enhancing its reliability. According to Creswell and Clark, (2018), emphasis on reliability validates the instrument's consistency and precision, thereby reinforcing the credibility of the research findings.

3.12 Reliability Test

Research reliability pertains to the precision and uniformity of measurement, ensuring consistent results upon repetition of the research (Collis & Hussey, 2014). Taherdoost (2016) suggests that the Cronbach Alpha coefficient is the most suitable measure for internal consistency, particularly when employing the Likert scale. He recommends a minimum internal consistency coefficient of 0.7, as supported by various studies. Consequently, this study utilized the Cronbach Alpha coefficient to assess the reliability of the survey questionnaire. A Cronbach Alpha coefficient of 0.88 was determined in this study, as indicated in the presentation of findings chapter.

3.13 Validity Test

To ensure the validity of the study's data collection tool, the researcher employed content validity. Malake (2020) defines content validity as the degree to which an instrument accurately represents the factors pertinent to the research study. Taherdoost (2016), in his work on questionnaire validation, suggests that ensuring content validity involves conducting literature reviews and seeking expert evaluations within the research area.

Against the foregoing assertion, content validity for the survey questionnaire was ensured by formulating questions based on relevant literature and prior empirical studies, followed by an assessment by the research supervisor. Additionally, feedback obtained from the pilot study significantly contributed to refining the instrument's validity. Taherdoost, (2016) further clarifies that content validity ensures that the questionnaire measures the intended elements, while a pilot study aids in identifying and rectifying any ambiguities or deficiencies.

3.14 Normality Test

The normality test was conducted in this study to assess the distribution of the dataset, a critical step in ensuring the appropriate selection of statistical techniques. Establishing whether the data follows a normal distribution is fundamental, as many statistical methods assume normality for accurate results. According to Mulenga (2019), if the data deviates from normality, non-parametric tests are more suitable, whereas parametric techniques are applied when normality is confirmed.

This study utilized P–P and Q–Q Plots as graphical methods to assess normality. Mishra et al. (2019) classify normality tests into graphical and numerical tests. Graphical approaches, including skewness, kurtosis, histograms, and box plots, visually illustrate data distribution, while numerical tests like Kolmogorov–Smirnov and Shapiro–Wilk provide numerical validation. Although numerical tests offer objectivity, they may be unreliable in small samples ($n<50$) or overly sensitive in large ones ($n>300$) (Mishra, et al., 2019). Graphical methods, by allowing expert judgment, have an advantage in assessing normality in situations when numerical tests might be over or under-sensitive, justifying their use in this study.

3.15 Data Preparation and Analysis

The quantitative data collected from the respondents was statistically analyzed through descriptive and inferential statistics using the Statistical Package for Social Sciences (SPSS) tool and Microsoft Excel. According to Sutanapong & Louangrath, (2015), descriptive statistics involves providing a statistical overview of a dataset, encompassing measures such as mean, median, mode, variance, and standard deviation. On the other hand, inferential statistics entails making conclusions or inferences based on a set of observations through regression analysis, correlation analysis, hypothesis testing, and or analysis of variance (ANOVA) test.

3.16 Ethical Considerations

To uphold ethical considerations, the researcher obtained clearance from the University of Zambia Research Ethics Committee before engaging any participant in the study. The respondents were fully informed of the purpose of the study and what their participation entails. Voluntary consent was sought from the respondent before being engaged in the task. The confidentiality of the information and the anonymity of the respondents was respected. Additionally, the questionnaire was designed in a way that no name was required so that the respondents could freely share their views on the factors that drive their preference for a particular fuel service station. Lastly, permission was sought from the fuel service station management to engage customers.

3.17 Chapter Three Summary

This chapter outlined the methodology employed for this study, commencing with the justification behind adopting the positivist research philosophy, a quantitative research approach, and the cross-sectional descriptive research design. It further delineated the study's target population, which comprised motorists frequenting fuel service stations in Lusaka city, and determined the sample size of 440 respondents using Yamane’s formula. The chapter expounded on the sampling technique and justified the use of a structured closed questionnaire for collecting primary data. Secondary data was obtained through secondary literature reviews. Additionally, the chapter addressed reliability and validity tests, pilot testing, and normality tests, and established the utilization of descriptive and inferential statistics in analyzing the data. Finally, the chapter addressed ethical considerations. The subsequent chapter will present the data analysis and the study's findings

CHAPTER 4: DATA ANALYSIS & PRESENTATION OF FINDINGS

4.0 Introduction

The preceding chapter delved into the research methodology employed for this study. However, this new chapter outlines the findings of the study in a manner that helps with a more systematic analysis of the results. The chapter begins with an analysis of the demographic profile and then presents the descriptive and inferential statistics necessary to address the objectives of the study. Given the quantitative nature of the study and the use of a structured questionnaire, the researcher ensured that a 100% response rate of 440 respondents was achieved.

4.1 Demographic Profile of respondents

The demographic profile included the gender of the participants, age group, their education levels, driving ownership status, and the frequency of fuel service station visitations.

4.1.1 Gender and Age group of participants

The findings in Figure 4.1 show more than half (60%) of the 440 participants being male and 40% female. The majority belong to the 34-46 age group (47%), followed by the 26 – 35 age group (40%), 9% are above 45 years, and 4 % are between 18- 25 age group. The majority belong to the 34 -46 age group suggesting a mature-oriented group. The dominance of this age group could imply the age were people have reached a stable phase in their careers, allowing them more financial independence and purchasing power.

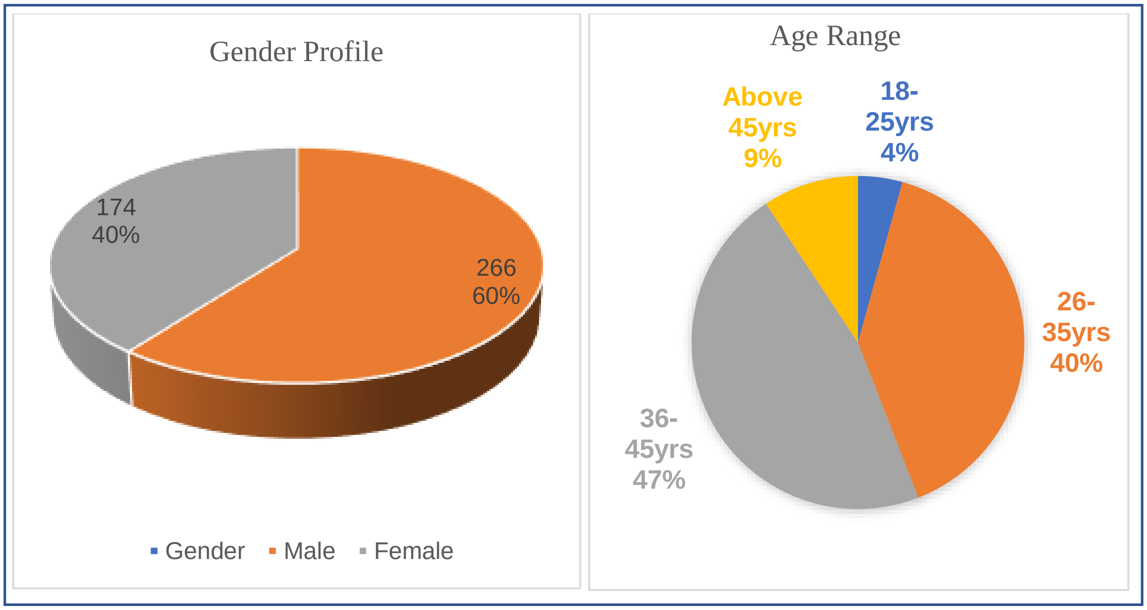

Figure 4.1: Gender and Age profiles (Field survey, 2024)

4.1.2 Education Level

The survey results in Figure 4.2 show that most participants have a formal education, with 65% holding a minimum of a Diploma. Their education status indicates that 38% hold a bachelor's degree, 22% have a grade 12 certificate, 16 % possess a diploma, 13% have a college certificate and 11 % are postgraduates.

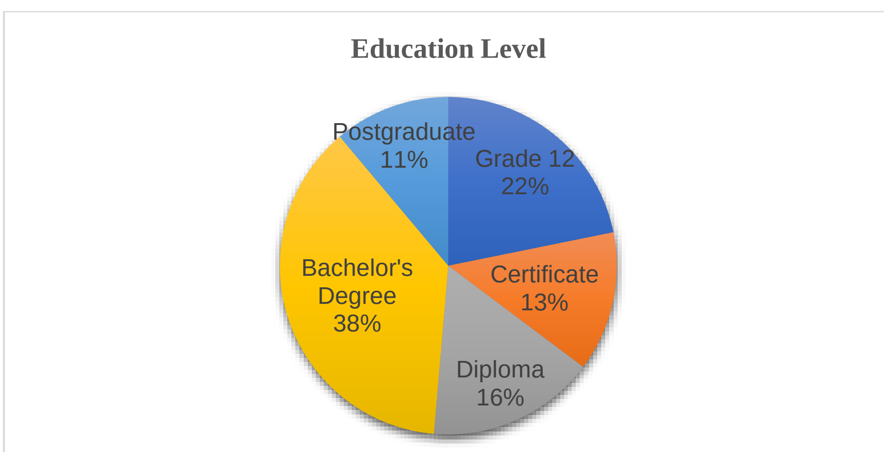

Figure 4.2: Education Level (Field survey, 2024)

4.1.3 Visitations to fuel station & Vehicle ownership

In terms of vehicle ownership, findings in Figure 4.3 indicates a significant 96.1% of respondents driving own car, underlining the relevance of their experiences with fuel retail stations. Interestingly, the results show that than half (51%) of the participants visit fuel retail stations 2 to 3 times a week, highlighting the frequency of consumer interactions within this environment.

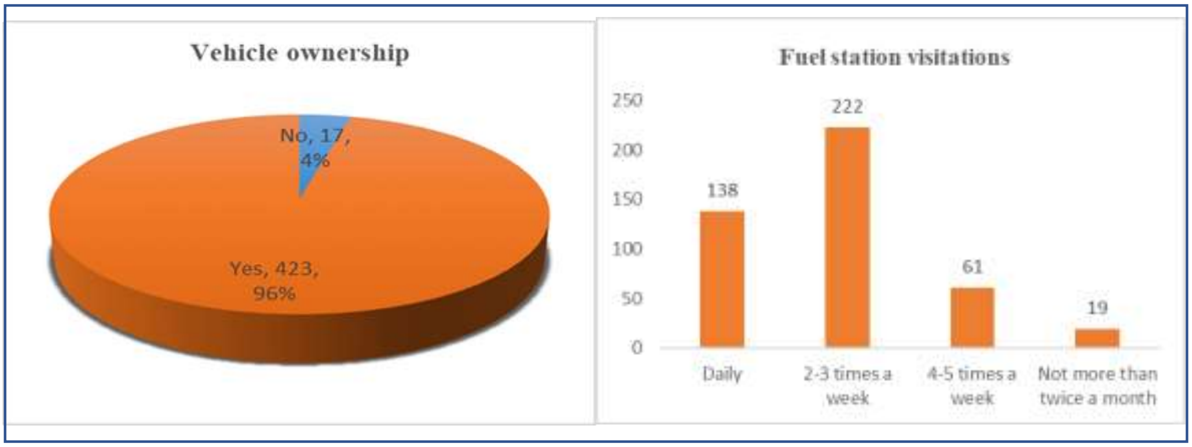

Figure 4.3: Vehicle ownership & Fuel station visitations (Field Survey, 2024)

4.2 Descriptive analysis results

Descriptive statistics were employed to present a statistical overview of the dataset, offering concise summaries regarding the sample and its measures of central tendency and dispersion and frequency distributions serving as the foundation for all quantitative data analyses (Sutanapong & Louangrath, 2015). The following addresses the descriptive results focused on each research objective.

4.2.1 Services & products consumers consider important at fuel service stations.

The findings from Table 4.1 show that consistent fuel (diesel and petrol) availability is the most crucial aspect for consumers when selecting a retail fuel service station, with an average rating of 4.94 and a standard deviation of 0.345. Respondents also strongly agreed that automotive products such as lubricants and tire pressure services hold significant importance in their decision-making process, as evidenced by their mean ratings of 4.7 and standard deviation of 0.721. Moreover, participants expressed that the availability of digital payment systems and convenient restrooms influences their choice of retail fuel service station, with mean values of 4.54 and 4.50, and standard deviations of 0.697 and 0.654, respectively. Respondents were neutral on the importance of car wash services at fuel stations with a mean rating of 3.39. Additionally, Automated Teller Machines (ATMs) and pharmacies were identified as other important services affecting customer decisions, with a mean rating of 4.30 and a standard deviation of 0.850. Furthermore, respondents indicated that auto-shops and vehicle maintenance services play a role in their selection process, with mean values of 4.35 and 4.33, and standard deviations of 0.815 and 0.933, respectively. Convenience stores or mini-marts, along with food outlets like Debonairs and Nandos, were also identified as significant factors, with mean ratings of 4.14 and 4.07, and standard deviations of 0.889 and 0.904, respectively. Liquified petroleum gas was found to be another product fuel consumer consider moderately important (mean 3.46; standard deviation 1.731). Respondents noted that kerosene and electric vehicle charging held slight or no importance in their decision-making, as indicated by their mean values of 2.08 and 1.55 respectively.

Table 4.1: Products & services considered important at a retail fuel service station

services/products	N	Mean	Std. Deviation
Fuel (Diesel & Petrol)	440	4.94	0.345
Automotive Products e.g. Lubricants	440	4.70	0.721
Liquefied Petroleum gas (LPG) - Gas for cooking	440	3.46	1.731
Paraffin or Kerosene	440	2.08	1.167
Vehicle Maintenance Service	440	4.33	0.933
Convenience Stores or Mini Mart	440	4.14	0.889
Tire air pressure service	440	4.70	0.661
Automated Teller Machines ATMs	440	4.30	0.794
Food Outlets such as Debonairs, Nandos, etc	440	4.07	0.904
Car wash services	440	3.39	1.442
Pharmacies	440	4.30	0.850

Autoshops	440	4.35	0.819
Digital Payment system	440	4.54	0.697
Convenience Restrooms	440	4.50	0.654
Electric Vehicle charging	440	1.55	1.134

Source: Field Survey, 2024

4.2.2 Factors influencing consumers' choice of retail fuel station.

This section aimed to evaluate various statements of the study variable items expressed as a percentage of the sample size used to explain the level of agreement by the participants using a 5-point Likert scale. The evaluation of each statement on the Likert scale was between 1 and 5 with 1= strongly disagree and 5 = strongly agree.

Responses on Service quality and choice of retail fuel service station.

The results in Table 4.2 show that the highest mean value is 4.69, which corresponds to the statement "I choose a fuel station that is reliable and delivers services consistently and accurately". This value corresponds to the scale value of 4, which indicates that the respondents strongly agreed. The lowest mean value is 4.64 which corresponds to the statement that I consider the cleanliness and appearance of fuel station facilities when choosing a fuel station and to the statement that the attitude of fuel station attendants and customer care is a factor I consider when choosing a retail fuel service station which indicates that the respondents have strongly agreed. All the mean values correspond to the scale value above 4 suggesting that the respondents agreed that service quality influences the choice of a retail fuel service station.

Table 4.2: Service quality

Statement	**N**	**Mean**	**Std. Deviation**
I consider the cleanliness and appearance of fuel station facilities when choosing a fuel station.	440	4.64	0.543

I choose a fuel station that is reliable and delivers services consistently and accurately.	440	4.69	0.502
I choose a fuel station that is responsive to customer inquiries or complaints	440	4.66	0.536
The attitude of fuel station attendants and customer care is a factor I consider	440	4.64	0.575
Overall	440	4.66	0.506

Source: Field Survey, 2024

Responses on Location and choice of retail fuel service station.

The results in Table 4.3 show that the highest mean value is 4.65 which indicates that respondents strongly agreed that they consider location preferences such as accessibility of the retail fuel service station. The lowest mean value is 3.40 which indicates that the respondents agreed to choose retail fuel service stations that are in proximity to their route/house. On average, most of the scale values correspond to the value 4, which indicates that the respondents agree that location influences the choice of retail fuel service station by the respondents.

Table 4.3: Fuel station location

Statement	**N**	**Mean**	**Std. Deviation**
I choose a fuel station that is in proximity/ near to my route/House.	440	3.40	1.073
Fuel stations should easily be accessible.	440	4.65	0.551
Time spent looking for a fuel station is important to me.	440	4.37	0.907
I prefer an oil marketing company that has a network of fuel stations.	440	4.50	0.717
Overall	440	4.23	0.449

Source: Field Survey, 2024

Responses on Promotional programs and choice of retail fuel service station.

The findings in Table 4.4 show the highest means values being 4.58, 4.18, and 4.13 which implies that the respondents agreed that different promotional offers like sales promotions, discounts, and gifts influence the choice of fuel station selection, including advertisements and good public relations. Conversely, the lowest mean value of 2.40 corresponding to the scale value of 2 indicates that respondents disagree with celebrity endorsement influencing their choice of retail fuel service station selection. On average, these findings indicate that the respondents agree that promotional programs influence the choice of retail fuel service station selection.

Table 4.4: Promotional programs

Statement	**N**	**Mean**	**Std. Deviation**
Advertisements influence my choice of a fuel service station.	440	4.13	0.934
Sales promotions, discounts, and gifts influence my choice of Fuel station selection.	440	4.18	0.912
I consider fuel service stations that have celebrity endorsements.	440	2.40	1.168
Good public relations are important for oil marketing companies.	440	4.58	0.587
Overall		3.82	0.621

Source: Field Survey, 2024

Responses on Brand image and choice of a fuel service station

The results presented in Table 4.5 with the mean values above indicate that respondents agree that the brand image of a retail fuel service station is very influential and plays a crucial role in driving the choice of the retail fuel service station. The results also show that respondents choose popular brands as they are likely to be associated with a reputable brand image. This is indicated by the mean of 4.5 and standard deviation of 0.739.

Table 4.5: Brand image

Statement	N	Mean	Std. Deviation
I choose fuel service station brands with a good reputation.	440	4.62	.575
I choose a fuel station brand that is perceived to meet customer's expectations.	440	4.62	.599
I choose fuel station brands that are popular.	440	4.51	.739
Overall		4.58	0.582

Source: Field Survey, 2024

Responses on Non-fuel amenities and Choice of a Fuel Station

The results in Table 4.6 show by the mean values of 4.44, 4.42, and 4.39 that respondents agree that various non-fuel amenities such as convenience stores and restrooms, vehicle maintenance and auto-shops, ATMs, food outlets, and or pharmacies influence one's selection of a retail fuel service station while the presence of car wash has a neutral effect on the selection of a retail fuel service season representing a mean value of 3.34 corresponding to the scale value of 3. On average, the findings indicate that the respondents agree that non-fuel amenities influence the choice of a retail fuel service station.

Table 4.6: Non-fuel amenities

Statement	N	Mean	Std. Deviation
I choose Fuel stations with convenience stores and convenience restrooms.	440	4.42	0.751
I choose a fuel station with car wash services.	440	3.34	1.180
I prefer fuel stations with ATMs, Food outlets, and or pharmacies.	440	4.39	0.776
I prefer a Fuel station with a vehicle maintenance service and Auto shops.	440	4.44	0.709
Overall	440	4.15	0.706

Source: Field Survey, 2024

4.2.3 Degree of consumer loyalty towards preferred fuel service station brands.

This aimed at evaluating several statements on the extent of consumer loyalty towards preferred fuel service station brands. A notable observation is that while respondents acknowledge a preference for a specific fuel service station brand evidenced by the mean rating of 4.23, they do not consistently refuel at the same station (mean = 2.57). This contrast raises critical questions regarding the strength of this preference. It suggests that while brand recognition may influence initial brand selection, other factors likely play a role in their actual refueling behavior. Furthermore, several external factors may account for this apparent inconsistency. For example, convenience factors, such as proximity to home or travel routes, could drive consumer behavior more than brand loyalty. Service quality and customer service experiences could also contribute to the decision to switch stations despite a stated brand preference. These findings underscore the importance of this study's first and second objective highlighting key elements that could drive consumer loyalty to encourage repeat purchases. The finding of a mean of 3.80 for the statement "Do you easily switch to other fuel service station brands?" further complicates the interpretation. While this score suggests moderate agreement, it contrasts with the earlier finding of a strong preference for a specific brand. This raises the question of whether respondents' fuel station loyalty is more of a habitual choice than a genuine loyalty factor. In other words, respondents may feel that they have a preferred brand, but when it comes to actual behavior, they do not have strong loyalty and are easily swayed by other factors. Moreover, respondents' perceptions that fuel stations offer similar products and services evident by a mean of 3.81 support this view, suggesting that brand differentiation is not significant enough to influence consumer choice consistently. However, despite these contradictions, the research finds that respondents are likely to recommend their preferred fuel station to others (mean = 4.41), suggesting that while loyalty in terms of repeat visits may be weak, there is still a strong social influence in promoting the brand. This suggest that while consumers may not be consistently loyal in their purchasing decisions, they still view the brand favorably enough to endorse it to family and friends.

Table 4.7: Results on the extent to which fuel consumers are loyal to their choice of fuel service station brand.

Statement	N	Mean	Std. Deviation
Do you have a preferred fuel service station brand?	440	4.23	0.749
Do you always refuel with this same fuel service station brand?	440	2.57	1.013
Do you easily switch to other fuel service station brands?	440	3.80	0.870
Do you think all fuel service station brands offer the same products hence you can refuel at any service station?	440	3.81	0.990
Are you likely to recommend your preferred fuel station brand to your friends or family?	440	4.41	0.605

Source: Field Survey, 2024

4.3 Normality test

The normality test was employed to assess the distribution of data in this study. This statistical procedure helped to determine if a given dataset followed a normal distribution, which is essential for analyses and assumptions in statistical methods. According to Mulenga, (2019), when the data is normally distributed; the study would adopt parametric tests and non-parametric tests if not. This study employed a P–P Plot and histogram graphical test for normality shown in Figure 4.4. According to Mishra et al. (2019), despite statistical tests normality tests like Kolmogorov–Smirnov and Shapiro–Wilk offering objective assessment, they may be insensitive in small samples (n<50) or overly sensitive in large ones (n>300), justifying the use of the graphical test in this study with a sample size of 440. Figures 4.4 show the P-P Plot with data points normally distributed and the associated data points fall approximately along a straight line, which suggests that the data are normally distributed and confirms that parametric tests can be used to test the relation among the study variables. Similarly, this is virtually depicted by the histogram.

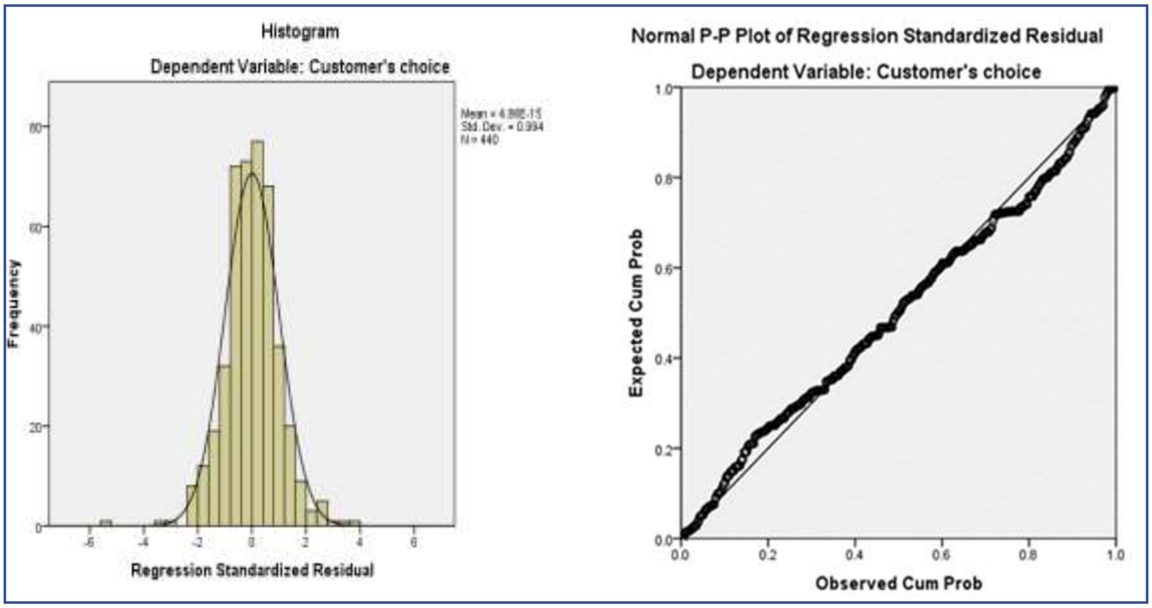

Figure 4.4: Graphical Normality Test

4.4 Validity and Reliability Tests

To ensure validity, content validity for the survey questionnaire was done by formulating questions based on relevant literature and prior empirical studies, followed by an assessment by the research supervisor. For reliability, the Cronbach Alpha coefficient was employed to assess internal consistency, achieving a score of 0.88 shown in Figure 4.8, which exceeds the recommended threshold of 0.7 according to Taherdoost, (2016). This indicates a high level of consistency in the measurement instrument. Further, a pilot test involving 20 vehicle-owning participants was conducted using a test-retest method, confirming the stability and consistency of responses over time.

Table 4.8: Reliability statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.877	0.883	5

Table 4.9: Scale statistics

Variables	Number of items	Cronbach's Alpha
Service quality	4	0.844332171
Location	4	0.858757957
Promotional programs	4	0.898290952
Brand image	3	0.834862476
Nonfuel amenities	4	0.839489296

Source: Field Survey, 2024

4.5 Inferential Statistics

This section highlights the inferential statistical analysis of the data collected. Pearson correlation analysis was used to investigate the pattern and degree of correlation between all parameters. To statistically test the influence of the hypothesized independent variables on a dependent variable, the collected data was subjected to multiple regression analysis.

4.5.1 Correlation Analysis.

Correlation analysis was used to examine the strength and direction of the relationship between the variables. It provides insights into how changes in one variable are associated with changes in another variable. According to Boslaugh & Watters, (2008), a correlation coefficient of zero signifies no correlation, 1 indicates a complete positive correlation, and -1 denotes a complete negative correlation. Additionally, according to Kolter (2013), a p-value (sig) of less than 0.05 indicates a statistically significant correlation between variables.

The correlation analysis for this study's findings is presented in Table 4.11. These results indicate that Service Quality has a strong positive correlation (0.691, $p < 0.01$) with consumer choice, implying that an increase in service quality tends to coincide with higher consumer choice. Additionally, Fuel Location displays a moderately positive correlation (0.509, $p < 0.01$) with consumer choice, suggesting that the location of the fuel station influences consumer choice, although to a lesser degree compared to service quality. Moreover, Promotional Programs show a weak positive correlation (0.318, $p < 0.01$) with consumer choice, implying that while promotional programs may exert some influence on consumer choice, other factors likely hold greater significance. Furthermore, Brand Image demonstrates a strong positive correlation (0.642, $p < 0.01$) with consumer choice, indicating that a strong brand image correlates with higher consumer choice. Finally, Non-fuel Amenities exhibit a strong positive correlation (0.685, $p < 0.01$) with consumer choice, emphasizing a positive association of consumer choice to retail fuel stations offering non-fuel amenities.

Additionally, it is important to note that correlation does not imply causation. While these correlations show a relationship between the study variables, the analysis does not account for potential external factors that could influence consumer choice.

Table 4.10: Pearson correlation analysis results

Pearson correlation summary

Variables	Statistics	Consumer's choice
Service quality	Pearson Correlation	0.691**
	Sig. (2-tailed)	0.000
	N	440
Fuel Location	Pearson Correlation	0.509**
	Sig. (2-tailed)	0.000
	N	440
Promotional programs	Pearson Correlation	0.318**
	Sig. (2-tailed)	0.000
	N	440
Brand Image	Pearson Correlation	0.642**
	Sig. (2-tailed)	0.000
	N	440
Non-fuel amenities	Pearson Correlation	0.685**
	Sig. (2-tailed)	0.000
	N	440

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

Source: Field Survey, 2024

4.5.2 Model Fitness

The variables were subjected to model summary to determine the model fitness and Analysis of Variance (ANOVA) to determine the significance of the model. According to Table 4.12, the result of the coefficient of determination ($R^2 = 0.881$) suggests that about 88.1 percent of the variations in respondent's choice of retail fuel service station are explained by the predictor variables. The study also shows that the correlation coefficient value (R) is 0.762 which indicates a strong relation between the research variables.

Table 4.11: Model summary results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.762[a]	0.881	0.876	0.36746
a. Predictors: (Constant), Mean Non-fuel amenities, Mean Promotional programs, Mean Location, Mean service quality, Mean Brand Image				

Source: Field Survey, 2024

4.5.3 Analysis of variance (ANOVA)

The analysis of variance was conducted focusing on presenting and indicating the significance of the model used in the study. The summary of the ANOVA results is presented in Table 4.12 below. These results show the F-value calculated is 120.216. This means that the overall regression model was significant and therefore a reliable indicator of the results. In terms of p-values, the research indicated 0.000 which is less than 0.05 and therefore statistically significant.

Table 4.12: Analysis of Variance Results:

ANOVA[a]					
Model	Sum of Squares	Df	Mean Square	F	Sig.

Regression	81.162	5	16.232	120.216	0.000[b]
Residual	58.602	434	0.135		
Total	139.764	439			
a. Dependent Variable: Mean customer's choice					
b. Predictors: (Constant), Mean Non-fuel amenities, Mean Promotional programs, Mean Location, Mean service quality, Mean Brand Image					

Source: Field Survey, 2024

4.5.4 Multiple Regression Analysis Results

The collected data were subjected to multiple regression analysis to statistically test the influence of the presented hypothesized independent variables on a dependent variable. The multiple regression analysis for the variables under study, established from pertinent studies, is shown in Table 4.13.

Table 4.13: Multiple regression analysis results

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.298	0.191		1.560	0.119
service quality	0.509	0.064	0.456	7.999	0.000
Fuel station Location	0.032	0.054	0.026	3.598	0.045
Promotional programs	0.003	0.033	0.004	6.105	0.016
Brand Image	0.056	0.062	0.058	4.906	0.037

Non-fuel amenities	0.337	0.038	0.421	8.815	0.000
a. Dependent Variable: Customer's choice					

Source: Field Survey, 2024

The model specification of the study is described and shown below:

$$CC = 0.298 + 0.509SQ + 0.032FSL + 0.003PP + 0.056BI + 0.337NFA$$

Whereby

CC= Consumers' Choice

SQ = Service Quality

FSL = Fuel Station Location

PP =Promotion Programs

BI= Brand Image

NFA = Non-Fuel Amenities

As shown in Table 4.13, unstandardized coefficients (β) represent how the dependent variable changes in response to a one-unit change in each independent variable, holding other factors constant. The unstandardized coefficient (β) for service quality is 0.509, indicating that a one-unit increase in service quality leads to a 50.9% increase in consumers' choice of fuel service stations. This suggests a moderate to strong influence of service quality on consumer choice.

In contrast, the coefficient for promotional programs is 0.003, which means that a one-unit change in promotional programs leads to only a 3% increase in consumer choice. While this coefficient is statistically significant, the practical relevance is minimal. Even though the result is statistically reliable, the influence of promotional programs on consumer choice is relatively small, suggesting that other factors may play a more significant role in determining consumer behavior.

Similarly, the unstandardized coefficient (β) for brand image is 0.056, which implies a 5.6% increase in consumer choice with a unit improvement in brand image. While this effect is statistically significant, its real-world impact is more moderate compared to service quality.

The coefficient for fuel station location is 0.032, signifying a 3.2% increase in consumer choice with a unit change in the station's location. Again, while statistically significant, the impact is relatively modest, suggesting location may influence consumer behavior, but not to the same extent as other variables.

Lastly, the non-fuel amenities variable shows an unstandardized coefficient (β) of 0.337, indicating that a 33.7% increase in consumer choice occurs with a one-unit increase in non-fuel amenities. This coefficient suggests that non-fuel amenities have a strong influence on consumer choice, emphasizing their importance in driving consumer preference for a fuel station.

4.6 Chapter Four Summary

This section presented the descriptive and inferential data analysis alongside the associated findings, aimed at fulfilling the objectives of this research. It began by outlining the sample characteristics of the collected data to comprehend the demographic profile. Further, it analyzed the descriptive analysis results on the products and services consumers considered important and presented the descriptive findings on factors influencing consumer choice of a fuel station. The normality test result was presented to ascertain the feasibility of conducting parametric tests, while the reliability test was presented to evaluate the validity of the developed constructs. The results of the correlation analysis among the variables under study were then presented to assess their associations. Subsequently, the results of the model fitness and the analysis of variance were presented to establish the significance of the model. Finally, the findings of the Multiple regression were outlined to determine the significance of the study variables and to ascertain whether to reject or fail to reject the hypotheses. The next chapter discusses the findings of the study

CHAPTER 5: DISCUSSION OF RESULTS

4.0 Introduction

This section presents the discussion on the findings about consumers' behavior and preference for retail fuel service stations in Lusaka Zambia. It covers the three objectives of the study and their alignment with the findings of previous researchers within the framework of the reviewed pertinent studies.

4.1 The Products and services considered important at retail fuel service stations.

The findings from Table 4.1 highlighted the multifaceted nature of consumer preferences for products and services when selecting a retail fuel service station. Consistent fuel availability emerges as the cornerstone of consumer decision-making, evident from its exceptionally high mean rating of 4.94 and low standard deviation of 0.345. Given its fundamental role in vehicle operation, consumers prioritize retail stations that offer reliable and high-quality fuel options. These findings align with the studies conducted by Inderadi & Setiadi, (2020) and Urio & Mwakyusa (2023) that found that reliable availability of high fuel quality and options are determinants of consumer choice of fuel stations.

Further, Tire pressure services and automotive products such as motor vehicle lubricants among others hold significant influence over consumer decisions, as evidenced by their high mean ratings of 4.7 and standard deviation of 0.721. This underscores consumers' emphasis on vehicle maintenance and care, seeking retail stations that provide comprehensive automotive services beyond fuel provision. Petra, et al., (2017) in their study on the growing importance of petrol stations as channels for expanding retail services confirm the significance of these products and services as a form of differentiation from competitors.

Additionally, the availability of digital payment systems and convenient restrooms emerges as crucial considerations for consumers, with mean ratings of 4.54 and 4.50, respectively, and moderate standard deviations (0.697 and 0.654). These findings highlighted consumers' desire for smooth and convenient experiences at fuel stations, emphasizing the importance of modern payment methods and clean restroom facilities in enhancing customer satisfaction and loyalty.

Moreover, the study findings showed that additional services at retail fuel service stations such as ATMs, pharmacies, and auto-shops indicated by their mean ratings ranging from 4.30 to 4.35 and standard deviations reflecting varying levels of importance (ranging from 0.815 to 0.933). These findings suggest that consumers value stations catering to their diverse needs beyond basic fuel and automotive services, seeking one-stop destinations for convenience and comfort. Other critical services highlighted by the study findings are convenience stores commonly known as minimarts and food outlets like Debonairs, Hungry Lion, Nandos, and others, with a mean rating ranging from 4.07 to 414. These findings emphasize the importance of retail and food outlets in attracting consumers to fuel stations, reflecting evolving consumer preferences for integrated shopping and dining experiences. Similarly, these findings are in line with studies by Saad & Wahid, (2017), Saini & Matinise, (2013), Mwenda & Oloko, (2016), and Petra et al., (2017) who elucidated the importance of convenience stores, food outlets, various digital payment systems, and assorted additional amenities in the prioritization of retail fuel consumers.

Interestingly, products like LPG and electric vehicle (EV) charging were rated much lower, with mean scores of 3.46 and 3.39 respectively. Kerosene and electric vehicle charging received even lower ratings, 2.08 and 1.55, indicating minimal consumer interest. This finding diverges from Mwenda & Oloko (2016) and Petra et al. (2017), who highlight these services as important for certain consumer segments.

This contrast could be attributed to several factors. For instance, the low adoption of electric vehicles in Zambia likely explains the minimal interest in electric vehcile charging. The lack of widespread market awareness about the benefits of electric vehicles and their supporting infrastructure may also be contributing to this low rating. Moreover, LPG adoption, while growing globally, still faces slow uptake in Zambia, partly due to limited education on its benefits and availability. However, as global trends push for greener energy solutions and Zambia's energy supply challenges persist, it is plausible that demand for these services will increase. Further market education and government incentives may drive greater adoption of these services in the future.

4.2 Factors influencing consumer choice of retail fuel service stations.

The findings from the regression analysis in Table 4.13 present the results on the relationship between the independent and the dependent variables expounded on below:

Influence of Service quality on consumer's choice of retail fuel service station

The regression analysis results indicate a significant positive influence of service quality on consumer choice, with a β coefficient of 0.509. Since the P value is less than 0.05, we reject the null hypothesis and conclude that service quality is a significant determinant of the consumers' choice of retail fuel service station ($t=7.789$, $p<0.000$). This finding stresses the critical role that service quality plays in attracting and retaining customers at fuel stations. High service quality encompasses several dimensions, including cleanliness, reliability, accuracy in fuel dispensation, promptness, and staff friendliness, all of which contribute to an enhanced customer experience. In the broader context, this finding aligns with the Engel-Kollat-Blackwell (EBK) theoretical framework, which emphasizes that service quality significantly influences consumer decision-making during the evaluation of alternatives and the post-purchase decision stages. The strong relationship between service quality and consumer choice reflects the increased competition in the fuel retail sector, where differentiation through superior service can lead to a competitive advantage. Practically, this implies that fuel marketers should prioritize investments in service quality improvements as a key strategy for customer acquisition and retention. These enhancements could include training for staff, regular maintenance of station facilities, and implementing customer feedback systems to address service issues promptly. This strategic focus on service quality is supported by prior research (Limo et al., 2014; Mwenda & Oloko, 2016; Inderadi & Setiadi, 2020), which highlights its importance in driving consumer preferences in the fuel retail sector.

Influence of Location on consumer's choice of retail fuel service station

The regression analysis results reveal that the location of a retail fuel service station positively influences consumers' decisions regarding which station to patronize ($\beta=0.032$). With a P value below 0.05, we reject the null hypothesis and conclude that the location of a retail fuel service station significantly determines consumers' choices ($t=3.598$, $p<0.045$). This influence stems from optimizing attributes such as accessibility and proximity, leading to an increase in customers patronizing a given station. Consumers are more likely to frequent fuel stations that are conveniently located along their daily routes or close to their residences and workplaces. This finding supports the argument made by Saini & Matinse (2013) and Pileliene & Bakanauskas (2014), who argue that location is a crucial determinant of consumer preference, especially in contexts where brand loyalty is less pronounced. The strategic placement of fuel stations can thus serve as a competitive lever, enhancing customer convenience and increasing station patronage. Conversely, results from Urio & Mwakyusa, (2023) indicate that the location of a fuel station does not hold statistical significance in determining consumers' choices. From a broader perspective, fuel retailers should consider location optimization as part of their market entry and expansion strategies. This could involve selecting sites based on traffic patterns, demographic analysis, and proximity to key residential and commercial areas. The results also suggest that while location is important, it should be integrated with other factors such as service quality and non-fuel amenities to maximize consumer attraction. The location factor aligns with the EBK theoretical framework that demonstrates the importance of convenience and location when consumers undergo the evaluation of alternatives stage.

Influence of Promotional programs on consumer's choice of retail fuel service station

The Promotional programs show a positive influence on consumer choice with a β coefficient of 0.003, shown by the regression analysis results. This result implies that an increase in promotional programs increases the number of consumers patronizing a given fuel station. Since the P value is less than 0.05, we reject the null hypothesis and conclude that promotional programs are significant determinants of the consumers' choice of retail fuel service station ($t=6.105$, $p<0.000$). Despite its relatively lower impact compared to service quality, promotions play a crucial role in attracting consumers by offering benefit through discounts, advertisements, and special offers. This aligns with findings from Yabani et al. (2017) and Ogbunamiri & Agu (2022), who highlight the effectiveness of sales promotions in driving consumer behavior and enhancing customer retention. In the competitive fuel retail market, promotional programs can differentiate a station from its competitors and provide a short-term boost in consumer traffic. Additionally, studies by Ogbunamiri & Agu (2022) and Mwenda & Oloko (2016) equally align with these findings. In practice, OMCs should strategically design and implement promotional campaigns that resonate with their target audience. This could involve seasonal discounts, loyalty programs, and partnerships with local businesses to enhance promotional impact. The results suggest that while promotions are significant, their effectiveness is maximized when combined with high service quality and strategic location.

Influence of Brand image and consumer's choice of retail fuel service station

The regression analysis findings reveal a positive influence of brand image on consumer choice, with a β coefficient of 0.056. This means that improvement in brand image leads to an increase in consumer choice of a given fuel station. Since the P value result for the brand image is less than 0.05, we reject the null hypothesis and conclude that brand image significantly influences consumer choice of fuel station ($t= 4.906$, $p<0.037$). The study reveals that fuel consumers often prefer fuel stations associated with reputable and trustworthy brands. A strong brand image contributes to consumer trust and preference, influencing their choice of fuel stations. This result is consistent with Tun's (2020) study, which identifies brand image as a critical factor in consumer decision-making. A positive brand image can foster customer loyalty and customer acquisition, subsequently offering a competitive advantage to an OMC. Contrary to these findings, Prabumenang et al., (2020) contend that brand image does not significantly influence customer satisfaction and repurchase intentions in Indonesia. However, the findings in this Zambian context call upon OMCs to invest in brand-building activities such as reputation management, community engagement, and consistent quality service to strengthen brand image and influence consumer choice. Moreover, consumers consistently advocate for reputable fuel brands through word-of-mouth recommendations. Additionally, these findings suggest that while the brand image is important, it should be reinforced by tangible factors such as service quality and amenities to achieve a holistic competitive advantage.

Influence of Non-fuel amenities and consumer's choice of retail fuel service station

The strong positive influence of non-fuel amenities on consumer choice, with a β coefficient of 0.337 highlights the growing consumer preference for fuel stations that offer additional services such as convenience stores, food outlets, vehicle maintenance products and services, and ATMs. The results show that non-fuel amenities are statistically significant in influencing the consumer's choice of fuel station with ($t= 8.815$, $p<0.000$). Since the P value is less than 0.05, we reject the null hypothesis and conclude that non-fuel amenities have a significantly positive influence on consumers' choice of a fuel station. This finding suggests that consumers increasingly view fuel stations as multifunctional service stations rather than just fuel-filling stations. These findings are consistent with previous research by Wahid (2009), Saini & Matinse (2013), and Petra, et al., (2017) which also identified non-fuel amenities as having a positive influence on consumers' choices of retail fuel service stations. Providing a range of supplementary services aligns with the EBK model's emphasis on the evaluation of alternatives stage, where consumers consider additional benefits beyond the core product. This is supported by the other stages in the EBK theoretical framework such as the need for recognition stage, involving consumers recognizing the necessity to purchase certain products or services at a particular service station. Moreover, the presence of non-fuel amenities could spark interest in consumers and compel them to take a purchase decision step. Based on their customer experience, the consumer may repeatedly return to the same service station, which the EBK framework highlights as the post-purchase stage. For fuel marketers, diversifying service offerings can be a strategic approach to attract a broader customer base and increase station patronage. This could also involve developing partnerships with local businesses to offer diverse amenities, enhancing the overall value proposition of the fuel service station.

4.3 Degree of consumer loyalty toward preferred retail fuel service stations

In evaluating consumer loyalty towards preferred fuel service station brands, this study revealed some interesting and somewhat contradictory findings. Although respondents reported a clear preference for a particular fuel service station brand, with a mean rating of 4.23, they did not consistently refuel at the same station, as evidenced by a mean of 2.57. This contrast raises important questions about the depth of brand loyalty. It suggests that while brand recognition may initially drive consumer selection, other factors likely influence their actual refueling behavior.

External factors discussed in the first and second objective of this study, such as proximity of stations to consumers' homes or frequented routes may have a more significant role than brand loyalty in the decision to refuel. Additionally, the quality of service and customer service experiences at different stations may encourage consumers to switch brands despite expressing a preference.

A further complication arises from the finding that respondents somewhat agree evident by a rating of 3.8 with the statement "Do you easily switch to other fuel service station brands?" This score suggests moderate agreement, which diverges from the strong preference for a particular brand. It raises the question of whether respondents' loyalty to their preferred station is habitual rather than based genuine loyalty. In other words, consumers may feel that they have a preferred brand, but when it comes to actual behavior, they do not have strong loyalty and are easily swayed by external factors. Moreover, the perception that fuel stations offer similar products and services, with a mean of 3.81, further supports this phenomena. It suggests that brand differentiation may not be substantial enough to consistently influence consumer choice. This finding suggest a more transactional relationship with fuel service stations, where consumers perceive limited differences between brands, making them more likely to switch based on other factors than loyalty.

Despite these contradictions, an interesting aspect of the findings is that respondents indicated a high likelihood of recommending their preferred fuel station to others, with a mean rating of 4.41. This indicates that while their loyalty may not always translate into repeat visits, there is still a strong social influence associated with their brand preference. This suggests that social influence and brand advocacy may play a significant role in consumer behavior, even when repeat purchase behavior appears less consistent.

Therefore, OMCs should focus on strategies to enhance customer loyalty, such as various loyalty programs and leveraging on established factors like service station location, service quality, strengthening the brand image, and offering diverse non-fuel amenities. Additionally, Dhevika et al. (2013) remark that retention of a mere five percent more of a firm's loyal customers could potentially boost its profits by 25% to 125%. This includes a customer's willingness to pay higher prices, which is a more efficient strategy than attracting new customers, consequently contributing to an increased market share (Dhevika, et al., 2013).

4.4 Chapter Five Summary

The findings in this chapter suggest that consumer choice is driven by both tangible and intangible factors. They encompass a variety of products and services offered at fuel stations such as consistent fuel options, auto shops, tire pressure checks, vehicle maintenance services, automotive products, pharmacies, ATMs, food outlets, convenience stores, car wash, LPGs, electric charging and other non-amenities that are unique to consumers. Additionally, salient factors such as service quality, fuel station location, brand image, promotional programs, and non-fuel amenities are significant in driving consumer decision-making when selecting a fuel station.

CHAPTER 6: CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter sums up this study on the factors driving consumers' choice of retail fuel service stations in Lusaka Zambia. The chapter outlines the conclusion, research recommendation, study contribution, and research limitations to be addressed by future research. The chapter addresses the three research objectives set up in the first chapter to ensure they have fully been accomplished.

5.1 Conclusion

Fuel remains a critical commodity worldwide, particularly in developing nations like Zambia, where it is essential for driving the economy. Despite the limited adoption of electric vehicles, the demand for petrol and diesel remains high, presenting opportunities for fuel marketers. However, with homogeneous products, regulated pricing, and increasing competition among OMCs, market share has become diluted, making differentiation challenging. This study sought to investigate consumer behavior in fuel station selection, offering insights into the key factors influencing their choices and helping OMCs enhance competitiveness.

The study's first objective sought to determine essential products and services consumers prioritize in their choice of fuel service stations. Findings indicate that fuel availability and automotive services such as tire pressure checks, vehicle maintenance, and auto shops are highly valued by consumers. Additionally, modern conveniences like digital payment systems, clean restrooms, ATMs, pharmacies, and food outlets significantly enhance customer satisfaction and repurchase intentions. These findings underscore the need for OMCs to expand their service offerings to align with evolving consumer expectations

The study's second objective identified service quality, promotional programs, station location, brand image, and non-fuel amenities as the primary determinants of consumer choice. Service quality, including reliability, staff friendliness, and cleanliness, was particularly significant in shaping consumer preferences. Similarly, convenient station locations and effective promotional strategies influenced customer acquisition and retention. Additionally, a positive brand image, associated with reputable and trustworthy brands, can create a sense of trust and loyalty among consumers. Non-fuel amenities, such as convenience stores and restrooms, further enhance the overall customer experience and influence consumer choice. The findings suggest that OMCs must focus on customer-centric strategies to remain competitive in the prevailing hypercompetitive market.

Lastly, the findings of the third objective on the extent of consumer loyalty to fuel service station brands revealed that despite expressing a preference for fuel station brands, most consumers exhibit low brand loyalty, often switching stations due to convenience, promotions, or dissatisfaction with service. However, recommendations and word-of-mouth play a role in influencing consumer decisions. These findings further highlight the importance of strengthening brand differentiation and customer retention initiatives to sustain market share and business viability.

Additionally, the study's findings align with existing literature on consumer decision-making in fuel retail, particularly as explained by the Engel, Blackwell, and Kollat (EBK) model. This model illustrates how consumers evaluate multiple factors before making a purchase decision. Overall, the insights from this study can guide OMCs in developing strategies that enhance consumer experience, build brand loyalty, and ensure business sustainability in Zambia's competitive fuel retail sector

5.2 Recommendation

Based on the study's findings, several actionable recommendations for OMCs emerge:

First, enhancing service quality should be a priority. Implementing comprehensive training programs for staff will ensure high levels of service consistency and customer interaction. Regular maintenance and upgrading of service station facilities will contribute to cleanliness and reliability. Additionally, putting in place a feedback system will help address customer concerns and improve service quality.

Second, optimizing the location of service stations is crucial. Strategic site selection based on demographic and traffic pattern analysis can identify optimal locations for new service stations while improving accessibility at existing sites can enhance convenience for customers.

Third, strengthening brand image through marketing and public relations efforts will build and maintain a positive reputation. Engaging in community activities and corporate social responsibility initiatives can further enhance brand visibility and trust.

Fourth, revamping promotional programs with targeted campaigns and loyalty incentives will attract and retain customers. Moreover, developing customized loyalty programs can address the diverse switching behaviors of consumers, encouraging repeat visits.

Fifth, expanding non-fuel amenities such as collaborating with various local businesses to provide supplementary products and services will create a more comprehensive and convenient service experience. This includes offering unique services and innovative solutions that stand out in the eyes of consumers by providing experiences that differentiate them from competitors. This would include improving customer experience beyond fuel services.

Finally, investing in marketing efforts aimed at monitoring and staying abreast with market trends, consumer behaviours, and industry dynamics. This enables OMCs to continuously adapt strategies to changing conditions, ensuring competitiveness and influence in shaping consumer choices.

5.3 Research Contribution

This study holds both theoretical and practical implications that advance academic understanding of consumer behavior in retail fuel stations and provide tangible benefits to industry stakeholders.

5.3.1 Theoretical Implication

The theoretical implication of this study lies in enhancing the understanding of the factors influencing the decision–making process consumers undertake when choosing a retail fuel station, bolstering the application of the EKB model theoretical framework. It contributes to consumer behavior knowledge in the retail fuel sector through continuous development and refinement of the EKB model and provides insights that can guide future theoretical development and empirical research in the retail fuel sector. Firstly, the study demonstrates that factors such as service quality, brand image, fuel station location, promotional programs, and non-fuel amenities align with the stages of information processing, alternative evaluation, and post-purchase evaluation suggested by the EKB model, thereby validating the theoretical framework. Secondly, the study contributes to the conceptual refinement of the EKB model identifying specific factors within each stage of the decision-making process that significantly influence consumer choice of fuel station. This detailed understanding improves the theoretical precision of the model and clarifies how various factors interact to drive consumer behavior. Thirdly, the study may suggest ways for extending the EKB model to include additional variables that influence consumer choice of fuel service station. For example, it may prompt further investigation into the role of other emerging factors in shaping consumer behavior within the fuel-retailing sector. Lastly, the findings may emphasize the theoretical integration of factors across different stages of the decision-making process, demonstrating how service quality, brand image, location, promotional programs, and non-fuel amenities interact to shape consumer choices.

5.3.2 Practical Implication

The findings of this study aid OMCs in their strategic planning on practical insights that drive retail consumer choice of a fuel station to grow their market share and ultimately offer them a competitive edge. By understanding factors consumers prioritize when patronizing fuel service stations, OMCs can focus on improving these areas such as offering high service quality, strengthening brand image, convenient access to fuel stations, designing targeted promotional programs, and providing supplementary non-fuel amenities that can lead to increased customer satisfaction and loyalty. Moreover, identifying the primary consumer preferences allows OMCs to differentiate themselves in a highly competitive market. By offering unique services and superior products, they can establish a competitive advantage and potentially grow their market share.

5.3.3 Policy Implication

The findings of this study can be informative to policymakers, regulatory bodies, and industry stakeholders by highlighting key factors that influence consumer choice in Zambia’s fuel retail sector. Given the increasing competition and evolving consumer preferences, there is a need for more consumer-centric regulatory frameworks that enhance service quality and overall market efficiency.

Firstly, regulatory bodies such as the Energy Regulation Board (ERB) could leverage these insights to establish stringent service quality standards for fuel stations. Regulatory bodies could enforce transparent service standards, including periodic fuel quality testing, customer service training, and stricter compliance monitoring to ensure fair competition and consumer protection.

Secondly, the study revealed that beyond fuel provision, consumers highly value non-fuel amenities such as convenience stores, restrooms, food outlets, ATMs, and vehicle maintenance services among others. Incorporating these elements into regulatory guidelines could foster a better consumer experience and set industry-wide benchmarks for service station infrastructure. This aligns with research by Inderadi & Setiadi (2020) and Ogbunamiri & Agu (2022), which emphasized that multi-service stations enhance consumer loyalty and market competitiveness.

Thirdly, location optimization emerged as a key determinant of consumer preference. Policymakers could utilize these insights to guide urban planning and fuel station licensing to prevent over-concentration in certain areas while ensuring adequate access in underserved locations. Studies in emerging markets (Tun, 2020; Purohit & Jain, 2021) suggest that strategic station placement improves fuel accessibility and enhances market sustainability.

Lastly, this study expounds on the role of loyalty programs and promotional strategies in influencing consumer retention. Regulatory frameworks could encourage fair competition in loyalty schemes by ensuring that promotional practices do not create monopolistic tendencies that disadvantage smaller OMCs. Aligning regulations with best practices observed in competitive fuel markets (Alvi et al., 2016; Limo et al., 2014) could enhance consumer choice and market fairness.

5.4 Limitations of the study

Despite the valuable contributions of this study, several limitations provide avenues for future research. Firstly, a potential sampling bias exists as most respondents are from Lusaka province, restricting the generalizability of the findings to a wider population. However, efforts were made to enhance representativeness by collecting data from a diverse mix of fuel station brands and locations within Lusaka's central business district. The unique infrastructure, socioeconomic factors, and market dynamics in Lusaka may not be representative of other provinces. Secondly, the cross-sectional design of the study offers only a snapshot of consumer preferences at a specific point in time, preventing the capture of dynamic changes. However, to mitigate this, the study ensured that data collection was spread across different times of the day and week to account for possible temporal variations in consumer behavior. Nevertheless, the study cannot ascertain whether the factors influencing consumer choices remain consistent over long a period. Lastly, the reliance on a single methodology, primarily surveys, limits a comprehensive understanding of consumer behavior. Quantitative studies often emphasize measurable variables, potentially overlooking qualitative factors that might also influence consumer choices.

5.5 Recommendation for future research

Firstly, efforts should be made to address the sampling bias by conducting studies that include a more diverse and representative sample from various regions, urban and rural areas. This will contribute to a more comprehensive understanding of consumer preferences on a broader scale. Secondly, future researchers may explore mixed-methods approaches that combine quantitative and qualitative methods. This approach can provide a more accurate depiction of consumer behaviors and preferences. Furthermore, future research can consider undertaking longitudinal studies rather than cross-sectional research that could track changes over time and provide insights into evolving consumer behaviors, contributing to a more dynamic understanding of the industry. Lastly, future studies can consider exploring the environmental impact of the mushroomed service stations on the community.

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APPENDICES

1. Questionnaire

Dear Respondent, My name is Abby Pangani, a postgraduate student at the University of Zambia. I am undertaking a study on the factors influencing consumer choice or preference for retail fuel service stations operated by oil marketing companies (OMCs) in Lusaka. You have been randomly chosen to answer this questionnaire which will not take more than 20 minutes of your valuable time. Please note that the questions asked are for academic analytical purposes only and confidentiality will be upheld. You will not be required to indicate your name and you are free to skip any question you are not comfortable answering. Kindly assist me in completing this questionnaire as frankly, openly, and honestly as possible.

INSTRUCTIONS

1. Please answer each question by ticking in the provided space.
2. You are requested to tick only one option per question.

SECTION A: DEMOGRAPHICS

1. What is your gender?	Male		Female	

2. What is your Age group?	**Age Group**	**Select one**
	18-25yrs	
	26-35yrs	
	36-45yrs	
	Above 46 years	

3. What is your Marital status	**Marital status**	**Select one**
	Single	
	Married	
	Other	

4. What is your highest education Level	Highest qualification	Select one
	Grade 12 certificate	
	Trades Certificate	
	Diploma	
	Degree	
	Postgraduate	

How often do you visit fuel service stations to refuel your vehicle?

A) Daily.

B) 2-3 times a week

C) 4-5 times a week

D) 6- 7 times a week

SECTION A: RETAIL SERVICES AND PRODUCTS CONSUMERS CONSIDER IMPORTANT AT FUEL STATIONS

Kindly tick the extent to which the following services/products are important at a retail fuel service station.

Services/Products	Not important	Slightly important	Moderately important	Important	Very important
Fuel (petrol/diesel)					
Automotive products (Lubricants & care products)					
LPG (gas for cooking)					
Paraffin/Kerosene					
Vehicle maintenance services					

Convenience stores					
Tire air pressure services					
Restroom					
ATMs					
Pharmacy					
Car wash services					
Food outlets					
Electric Vehicle charging					
Auto shop					
Digital payment methods					

SECTION B: FACTORS THAT INFLUENCE CHOICE OF RETAIL FUEL STATIONS

To what extent do you agree that the following aspects of service quality influence your choice of a fuel service station?

Service Quality Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) I consider the cleanliness and appearance of fuel station facilities when choosing a fuel station.					
b) I choose a fuel station that is reliable and delivers services consistently and accurately.					
C) I choose a fuel station that is responsive to					

customer inquiries or complaints.					
d) The attitude of fuel station attendants and customer care is a factor I consider important.					

To what extent do you agree that the following aspects of the location of a fuel service station location influence your choice of a fuel service station?

Fuel Station Location Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) I choose a fuel station that is in proximity to my route/house.					
b) Fuel stations should be easily accessible.					
C) Time spent looking for a fuel station is important to me.					
D) I prefer an OMC that has a network of fuel stations					

To what extent do you agree that the following aspects of promotional programs influence your choice of a fuel service station?

Promotional Program Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) Advertisements influence my choice of fuel service station.					

b) Sales promotions, discounts, and gifts influence my choice of Fuel station selection.					
C) I consider fuel service stations that have celebrity endorsements.					
D) Good public relations are important for oil marketing companies.					

To what extent do you agree that the following aspects of brand image influence your choice of a fuel service station?

Brand Image Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) I choose fuel service station brands with a good reputation.					
b) I choose a fuel station brand that is perceived to meet customers' expectations.					
C) I choose fuel station brands that are popular.					

To what extent do you agree that the following aspects of non-fuel amenities influence your choice of a fuel service station?

Non-fuel Amenities Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) I choose Fuel stations with convenience stores					

b) I consider a fuel station with a car wash, auto shop, or convenience restroom.					
C) I choose fuel stations with ATMs, Food outlets, or pharmacies.					

SECTION C: DEGREE OF CONSUMER LOYALTY TOWARDS PREFERRED RETAIL FUEL STATIONS

To what extent do you agree with the following aspects regarding your loyalty toward a specific fuel station brand?

Loyalty Constructs	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A) Do you have a preferred fuel service station brand?					
b) Do you always refuel with this same fuel service station brand?					
C) Do you easily switch to other fuel service station brands?					
D) Do you think all fuel service station brands offer the same products so you can refuel at any service station?					
E) Are you likely to recommend your preferred fuel station brand to your friends or family?					

2. Ethical Approval

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road Campus | P.O. Box 32379 | Lusaka10101 | Tel: +260-211-290 258/291 777 Fax: (+260)-211-290 258/253 952 | E-mail: director.drgs@unza.zm | Website: www.unza.zm

APPROVAL OF STUDY

IORG No. 0005376
HSSREC IRB No. 00006464
REF NO. HSSREC-2024-JAN-034

1st February, 2024

Mr. Abby Pangani
The University of Zambia
P. O. Box 32379
LUSAKA

Dear Mr. Pangani

RE: **"FACTORS INFLUENCING CONSUMER PREFERENCES FOR RETAIL FUEL SERVICE STATIONS: EVIDENCE FROM SELECTED OIL MARKETING COMPANIES IN LUSAKA ZAMBIA"**

Reference is made to your submission of the protocol captioned above. The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

REVIEW TYPE	**ORDINARY REVIEW**	**APPROVAL NO. HSSREC:-2024- JAN - 034**
Approval and Expiry Date	Approval Date: 1st January, 2024	Expiry Date: 31st January, 2025
Protocol Version and Date	Version - Nil	31st January, 2025
Information Sheet, Consent Forms and Dates	☐ English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	
Number of Participants		

3. Literature Review Matrix

NO	AUTHOR	JOURNAL	TOPIC	AIM	METHODS	COUNTRY	FINDINGS
1	Inderadi & Setiadi, 2020	PalArch's Journal of Archaeology of Egypt/Egyptology- 2020	Factors Influencing Consumer' preference in Choosing Petro Station: A Case of Petronas Station	To identify key factors affecting consumers' decision-making in selecting a petrol station.	Mixed Methods. (Quantitative & qualitative)	Malaysia	Quality of product is the most important factor affecting decision making when selecting a petrol station.
2	Purohit & Jain, 2021	Paideuma Journal of Research, 2021	The Science of Choice: Demystifying Consumer Preference in Indian Pero-Retail	To identify the consumer preferences in Petro industry & their impact on customer buying decisions.	Survey method	India	Fuel station management, Price of fuel, and Technology adaptation in services is critical in customer preference.
3	Ogbunamiri, A. & Agu, G. A.,	ARRUS Journal of Social Sciences and Humanities, 2(2), 2022	Drivers of Customer Loyalty in the Downstream Petroleum Sub-Sector-Nigeria	To examine the strength of the 7Ps in driving customer loyalty in the sub-sector	Survey research design	Nigeria	Product, price, place, promotion, people, process, and physical evidence are significant drivers of customer loyalty
4	Mwenda & Oloko, 2016	International journal of social sciences and information technology,	Determinants of motorists' choice of petrol stations in Kenya	To explore the determinants of motorists' choice of a petrol station in Kenya.	Quantitative. Descriptive Research. (Questionnaire)	Kenya	Service quality, accessibility brand preference, and promotion influence the choice of a petrol station.
5	Odhiambo, 2018	Unpublished Masters Dissertation.2018	Product Differentiation, customer loyalty & market share in the OMCs	To establish the extent to which product differentiation affects customer loyalty & market share	Descriptive cross-sectional survey	Kenya	Although few OMCs adopted this strategy, it has a positive correlation to customer loyalty, compared to price & purchase experience.
6	Manneh, et al., 2020	International Journal of Energy Production & Management	Determinants of consumer preference for petrol consumption: The case of Petro Retail in the Gambia	To investigate the determinants of consumer preference and their impact on service station business	Quantitative Research	The Gambia	Marketing programs and additional services are critical factors that influence retail petrol consumption in the Gambia.
7	Limo, et al., 2014	European Journal of Business and Management,2014	Effects of relationship marketing on customer loyalty: evidence from petrol service stations in Uasin-Gishu county Kenya	To determine the effect of relationship marketing on customer loyalty in Uasin-Gishu	Mixed method (Quantitative & qualitative research)	Kenya	Relationship marketing is pivotal in the outcome of customer loyalty & is based on trust, commitment, communication, & conflict handling resolution.
8	Yabani, et al., 2017	Journal of Research in Marketing,2017	Does Sales Promotion promote Customer Retention in the OMC?	To establish whether sales promotion to any extent retains customers.	Descriptive research	Ghana	Sales promotion, customer satisfaction & location are prime focuses for customer retention.
9	Tun, 2020	Masters unpublished Dissertation,2020	Consumer attitude and behavioral intention in the choice of a petrol station.	To analyze consumer attitude and behavioral intention in the choice of petrol station	Descriptive research	Myanmar	Brand and service trust, consumer knowledge, personal norms and subjective norms positively affect customer royalty.
10	Prabumenang, et al., 2020	Utopia y Praxis Latinoamericana ,2020	Determinant factors of fuel consumption behavior: Evidence from Indonesia	To examine the impact of brand image, brand trust toward customer satisfaction, and repurchase intention.	Quantitative descriptive research	Indonesia	Brand image and brand trust do not have an impact on customer satisfaction and repurchase intention of Pertalite.
11	Alvin, et al., (2016)	Imperial Journal of Interdisciplinary Research (IJIR)	The Perception of People Regarding the Selection of Petrol Pump in Karachi	To get an idea about people's perception of the choice of petrol pumps in Karachi	Descriptive quantitative research	Pakistan	Results suggested that all three variables; location, quality, and rewards do not have a significant impact on people's perception when choosing choose petrol stations.
12	Urio & Mwakyusa, (2023)	ORSEA Journal Vol. 12(2)	An Assessment of the Factors Influencing Consumers' Choice of Petrol Filling Stations in	The purpose of this study was to examine the factors influencing consumers' choice of petrol filling stations	Quantitative Research	Tanzania	The study findings revealed that brand, service quality, and fuel quality have a positive influence on consumers' choice of petrol filling stations