Assessment of Factors Influencing Retail Consumers' Choice of Fuel Service Stations in Lusaka, Zambia

Abby Pangani; and Bupe Getrude Mwanza

Graduate School of Business, University of Zambia, Lusaka, Zambia.

Corresponding author: abypangani@gmail.com

Abstract

Zambia's downstream petroleum retail sector has become fiercely competitive, compelling oil marketing companies (OMCs) to effectively understand and cater to consumer preferences. This research assessed the factors influencing retail consumers' choice of fuel service stations in Lusaka, Zambia. The study adopted a positivist research philosophy and applied a quantitative approach, utilizing a cross-sectional descriptive research design. A structured questionnaire was used to collect data from 440 motorists determined by Yamane's formula, within the central business of Lusaka town offering a diverse mix of fuel station brands and associated respondents. The primary data collected was analyzed using descriptive and inferential statistics with the aid of the Statistical Package for Social Sciences (SPSS) and Microsoft Excel. The study revealed that service quality, fuel station location, brand image, promotional programs, and non-fuel amenities significantly influence retail consumer choice of a fuel service station in Lusaka Zambia. Based on these findings, recommendations are made to OMCs to continuously improve all aspects of service quality, optimize fuel station location, revamp promotional strategies, strengthen brand image and reputation, enhance non-fuel amenities beyond mere fuel service, and continuously monitor and adapt strategies to improve their competitive edge.

Keywords: Retail Fuel Service Stations, Consumer Preferences, Oil Marketing Companies, Zambia, Service Quality, Brand Image, Non-Fuel Amenities, Promotional Programs, Fuel Station Location, Brand Loyalty.

Introduction

In today's hypercompetitive global business environment, the array of choices available to consumers has significantly increased. This proliferation of options has led to a noticeable increase in consumer switching behavior and decreased consumer loyalty (Wahab et al., 2016). This trend is particularly prominent in businesses offering homogeneous products, such as retail fuel service stations operated by oil marketing companies (OMCs) in the petroleum industry.

The Zambian retailing petroleum industry has grown substantially since its liberalization in 2001 (UNCAD, 2011). The petroleum sector is classified as downstream, exclusively relying on imported finished products for distribution and sale through OMCs. These products predominantly include diesel and petrol, sold to retail consumers through fuel service stations and commercial customers via strategic depots (ERB, 2022). Zambia currently has

neither upstream nor midstream activities, such as crude oil exploration or its transportation networks (Muyunda & Mukumba, 2020). Moreover, this sector is overseen by the Energy Regulation Board (ERB) and the retail fuel pump price is uniformly regulated throughout the country (ERB, 2022). The top ten major OMCs by market share according to ERB, (2023), include Puma Energy Zambia, TotalEnergies Zambia, Mount Meru Ltd, Vivo Energy Zambia, Rubis Energy Zambia, Oryx Energies Zambia Ltd, Spectra Oil Ltd, Lake Petroleum Ltd, Petroda Zambia Ltd, SGC Ltd etc.

Statement of the Problem

Over the past decade, the Zambian petroleum market has seen a significant increase in the number of OMCs, rising from 33 in 2013 to 138 in 2022, along with a rise in retail service stations from 275 to 506 during the same period (ERB, 2014; ERB, 2023). This surge in OMCs has intensified market competition, making it challenging for oil marketers to create distinctive selling propositions due to the regulated retail fuel pricing and selling of a homogeneous product. The proliferation of fuel service stations has enhanced consumer autonomy, providing greater power in choosing where to refuel. Consequently, dominant OMCs are facing threats to their market shares, as evidenced by fluctuations and declines reported in the ERB 2023 report. The uniform pricing mechanism of retail fuel diminishes the effectiveness of traditional pricing differentiation strategies used in other retail sectors to bolster market share, further complicating efforts by OMCs to distinguish their offerings. For instance, in 2013, Puma Energy Zambia and TotalEnergies Zambia commanded 54% of the retail fuel market share. However, by 2022, their combined Market share dropped to 37.9% due to the continuous influx of new entrants and increased competition (ERB, 2023). The decreased profitability resulting from shrinking market shares poses a risk of less competitive OMCs exiting the industry, as demonstrated by recent acquisitions such as Rubis Energy's acquisition of Samfuel and Kobil (Zulu, 2021).

In response to these threats, OMCs in Zambia must gain deeper insights into retail consumer preferences and effectively cater to them. This entails analyzing the factors influencing consumers' choices of fuel service stations, particularly when all stations offer similar products (fuel) at the same price. Mulenga, (2019) stressed the increased competition among OMCs in Zambia by conducting a study that examined the factors influencing commercial customers' choice of fuel suppliers, using Spectra Oil Ltd as a case study. The study revealed that time management, brand preference, advertising, and service quality were significant determinants. While Mulenga's (2019) research focused on the primary factors affecting commercial fuel consumers, there is a notable scarcity of studies addressing the driving factors or criteria retail consumers employ when selecting a service station. Thus, this study aims to fill this knowledge gap by assessing the factors that can be leveraged to influence retail consumers' choice of fuel service stations in Lusaka, Zambia, to bolster their market share. While extensive research has been conducted in various countries on these factors, there are conflicting findings that are specific to each country, highlighting the significance of carrying out this study particular to the Zambian

context (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). If not addressed, the intense competition for market share could lead to reduced revenues and profitability for OMCs, jeopardizing their long-term sustainability in the market.

Research Objectives

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

Literature Review

This section elucidates the empirical research relevant to addressing the research objectives.

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 various 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 (Hamid, 2009; Wahid, 2009; Mwenda & Oloko, 2016; Petra et al., 2017; Thanabordeekij & Syers, 2020; ERB, 2023). This wide array of products and services caters to the varied needs of consumers, providing convenience and a multitude of choices for motorists seeking fuel or other supplementary supplies and amenities during their visit.

Factors Influencing Consumer Preferences for Fuel Stations

Several scholars in various countries have attempted to investigate factors driving consumer choices of fuel stations to provide oil marketers with insights into consumer perspectives on what they consider important and understand their buying behavior. These studies point out factors encompassing service quality, brand image, fuel station location, marketing initiatives and advertising, perceived fuel quality, and non-fuel amenities (Limo et al., 2014; Saini & Matinse, 2013; 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). The present study aims to assess these latent factors influencing consumer preferences for retail fuel stations in the Zambian context.

Service Quality

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). Further, Ramya, et al., (2019) add that service quality involves various aspects: reliability, responsiveness, assurance, empathy, and tangibility, ensuring dependable service performance, prompt assistance, employee knowledge, personalized attention, and physical image reflecting service quality, respectively. Scholarly findings 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 stress 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 fuel service station maintenance. They suggest that maintaining high service quality is crucial for retaining retail fuel consumers, building a positive reputation, and significantly driving consumers' preferences and decisions concerning fuel service stations. While the literature highlights the importance of service quality, there is a need for more region-specific studies to understand local consumer priorities. This study hypothesizes that in Zambia, specific elements of service quality will significantly influence consumer preferences.

Fuel Station Location

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 (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 (Pileliene & Bakanauskas, 2014: Mwenda & Oloko, 2016: Xavier, et al., 2022: Urio & Mwakyusa, 2023). Although location is generally acknowledged as crucial, its specific impact on consumer behavior in Zambia requires further exploration. This study will test the hypothesis that strategic location factors, such as proximity to major roads and safety, significantly influence consumer preferences in the Zambian context.

Promotional Programs

Promotional programs or promotional mix encompass every means to communicate information about a product or service (Wahab, et al., 2016). According to Kotler & Armstrong (2016), a firm's promotional mix constitutes advertising, personal selling, sales promotion, and public relations, forming a cohesive marketing communication strategy for attaining its marketing objectives. Scholarly findings suggest that utilizing these strategies

can enhance customer satisfaction, improve brand reputation, and increase sales. For instance, Mgiba & Madela's (2020) research 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 choices of fuel stations. While promotional programs are effective, their impact can vary based on demographic and regional factors. This study hypothesizes that in Zambia, promotional programs like targeted advertising, sales promotions, discounts, gifts, and good public relations significantly impact consumer preferences.

Brand Image

According to Kotler & Keller, (2016), brand image refers to the perception, impression, or standing held by consumers regarding a specific brand or company. It includes the thoughts, emotions, convictions, and associations consumers attribute to a brand based on their 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) argue that a strong and favorable brand image can significantly influence consumer behavior, affecting their preferences, allegiance, and purchasing decisions, particularly towards retail fuel service stations. Moreover, consumers often link brands with specific characteristics because they sometimes find it challenging to evaluate product quality independently, thus depending on brands as indicators for such quality. 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. Although pertinent studies suggest that a strong brand image is crucial, there is a need to examine how brand perceptions specifically influence consumer behavior in Zambia. This study will investigate the hypothesis that a positive brand image significantly drives consumer preferences for fuel service stations in Zambia.

Non-Fuel Amenities

Non-fuel amenities refer to additional services or facilities beyond the selling of fuel offered to customers at fuel service stations (Wahid, 2009). These amenities 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, and beverages, car wash services, tire inflating stations, ATMs, vehicle maintenance services, and pharmacies among other products and services. Petra, et al., (2017) in their study on the growing importance of petrol stations as channels for expanding retail services confirm that consumers within the retail fuel sector tend to prefer service stations that offer a diverse range of supplementary products, services, and convenience facilities. While non-fuel amenities are important, their specific influence on

consumer preferences in Zambia needs further exploration. This study hypothesizes that the availability of non-fuel amenities will significantly enhance consumer preferences for fuel stations in Zambia.

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 companies actively seek ways to enhance consumer loyalty because loyal customers exhibit a reduced tendency to switch brands and are likely to make more purchases, 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. Hence, it is crucial to ascertain the extent of consumer loyalty to their preferred fuel station as it has strategic implications.

Theoretical & Conceptual Frameworks

The underpinning theoretical framework for this study was the Engel-Kollat-Blackwell (EBK) buyer decision process model. According to Tan, (2010), this model presents the fundamental principles of how consumers make decisions based on influencing factors they assess. Kotler & Armstrong, (2016) adds that by understanding the buyer decision process model, marketers can develop an effective strategy to attract their target customers. Thus, according to the EBK buyer decision process model, fuel consumers go through five stages when deciding on a fuel station of their choice – need for recognition, information search, evaluation of alternatives, purchase decision, and post-purchase decision.

Based on the research objectives and the reviewed pertinent literature, the conceptual framework in Figure 1 and hypotheses were developed for this study.
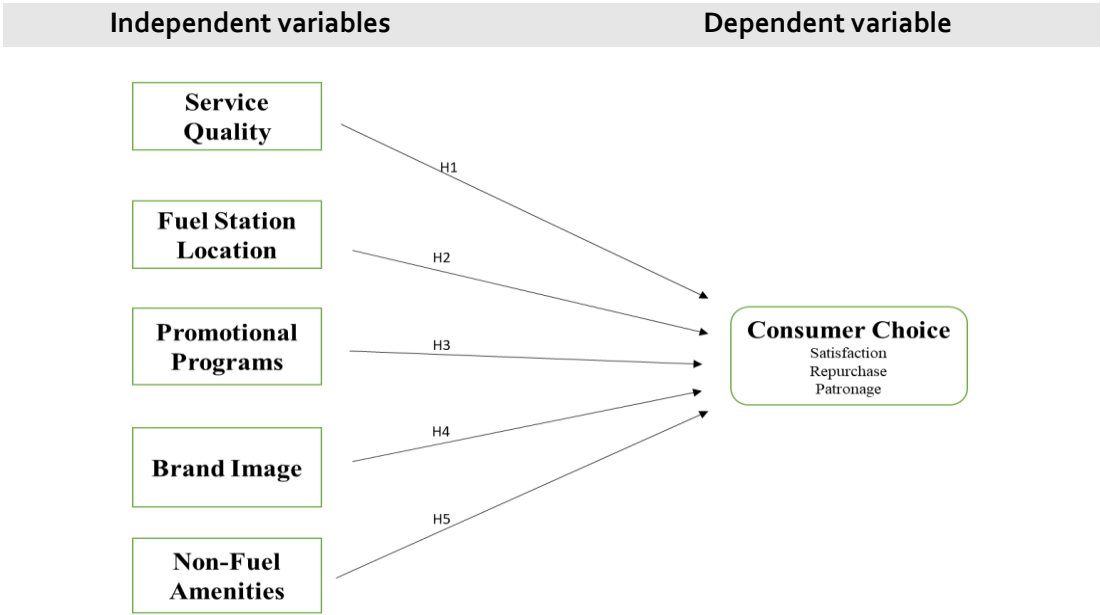
Figure 1.
Source: Author, 2024

The research hypotheses below were proposed as temporary solutions to the study's problem. In this case, the null hypothesis was that there was no significant positive relationship between the dependent and independent variables.

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.

Research Methodology

The research was quantitative and 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. The study population of interest was motorists visiting fuel service stations in Lusaka's central business district (CBD). The study utilized a structured survey questionnaire that contained elements related to the research questions on a Likert scale. The questionnaire underwent content validation and pilot testing enabling 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.

Further, a simple random sampling technique was used to select distinct service stations within Lusaka's CBD from which 440 respondents were approached after or before refueling, introducing the study, and administering the survey questionnaire face to face, collecting primary data. The sample size of 440 with an additional 10% nonresponse allowance was determined using Yamane's formula using the Road Transport and Safety Agency's estimated motor vehicle population of 695,740 (RTSA, 2023). Secondary data sources utilized included previous research reports, journals, corporate websites, and books.

Validity & Reliability test

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. The degree of reliability of this study was determined through the use of the Cronbach Alpha coefficient. The Cronbach Alpha coefficient exceeding 0.7 obtained and shown in Tables 1 and 2 below signified a high degree of internal reliability (Taherdoost, 2016).

Table 1: *Reliability statistics*

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

Table 2: *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

Results and Discussion

Table 3 illustrates the demographic profile of 440 respondents providing a detailed interpretation of their preferences and behaviors regarding fuel service stations. The gender distribution indicates a majority of male participants at 60.5% and 39.5% female. The majority belong to the 34-46 age group (46.6%), followed by the 26 – 35 age group (39.8%), 9.3% are above 45 years, and 4.3% are between 18- 25 age group. Regarding their

education status, 37.5% hold a bachelor's degree, 21.8% have a grade 12 certificate, 16.1% possess a diploma, 13.4% have a college certificate and 11.1% are postgraduates. Moreover, 96.1% of participants drive their cars, highlighting the importance of their experiences with fuel retail stations. Furthermore, over half of the participants visit fuel retail stations 2 to 3 times a week (50.5%), stressing the frequency of their interactions with the fuel station environment.

Table 3: Demographic profile of the respondents

Demographics	Attribute	Frequency (N)	Percent (%)
Gender	Male	266	60.5%
	Female	174	39.5%
Age	18-25yrs	19	4.3%
	26-35yrs	175	39.8%
	36-45yrs	205	46.6%
	Above 45yrs	41	9.3%
Level of education	Grade 12	96	21.8%
	Certificate	59	13.4%
	Diploma	71	16.1%
	Bachelor's Degree	165	37.5%
	Postgraduate	49	11.1%
Driving own vehicle	No	17	3.9%
	Yes	423	96.1%
Fuel service station visitation	Daily	138	31.4%
	2-3 times a week	222	50.5%
	4-5 times a week	61	13.9%
	Not more than twice a month	19	4.3%

Source: Field Survey, 2024

Services and Products Consumers Consider Important at Retail Fuel Stations

Table 4: Results on services and products 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 motor vehicle charging	440	1.55	1.134

Source: Field Survey, 2024

The findings in Table 4 reveal that 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, customers prioritize fuel stations that provide 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 service stations. Further, Tire pressure service and automotive products such as motor vehicle lubricants and others hold significant influence over consumer decisions, as indicated 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 offer 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. 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 highlight consumers' desire for smooth and convenient experiences at fuel service stations, emphasizing the significance of modern payment methods and restroom facilities in improving customer satisfaction and loyalty. Moreover, the study findings show that additional services at retail fuel service stations such as ATMs, pharmacies, and auto-shops highlighted by their mean ratings ranging from 4.30 to 4.35 are significant in driving consumer choice of a fuel station. These findings suggest that consumers value stations catering to their diverse needs beyond basic fuel and automotive services, seeking a one-stop destination for convenience and comfort. Other critical services by retail fuel service stations revealed 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 stress 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 Wahid, (2009), 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 amenities in the prioritization of retail fuel consumers.

Furthermore, products and services such as LPG and car wash services at retail fuel service stations received moderate ratings (3.46 and 3.39). At the same time, kerosene and electric vehicle charging are perceived as less important factors in consumer decision-making, as indicated by their low mean ratings of 2.08 and 1.55, respectively. These findings contrast with the recommendation by Mwenda & Oloko, (2016), and Petra et al., (2017) and could suggest limited demand or awareness for these products/services among consumers, highlighting the need for further market education and promotion to drive adoption. Besides, the low adoption of electric motor vehicles in Zambia could explain the low mean rating of 1.55. These findings could vary as the country experiences an increase in the adoption of electric motor vehicles and LPG for cooking. This shift may occur in response to global campaigns promoting green energy and the erratic electricity supply in Zambia, respectively.

Factors Influencing Consumer Choice of Retail Fuel Service Stations

The following inferential statistics and diagnostic tests were determined to assess the factors influencing consumer choice of fuel station.

Model Fitness

Table 5: 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

The model summary in Table 5 shows that the R square value is 0.881 implying that 88.1% of the variations in respondent's choice of retail fuel service station are explained by the predictor variables. The results also show that the correlation coefficient value (R) is 0.762 which indicates a strong relationship between the research variables.

Analysis of Variance (ANOVA)

Table 6: 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

The ANOVA results in Table 6 show that the regression model is significant since the P – value is less than 0.05 at a 95% confidence level. This indicates that the regression model is a good predictor of the factors influencing consumer choice of fuel station in Lusaka Zambia.

Multiple Regression Analysis Results

To establish the relationship between the dependent and independent variables, the data collected was subjected to multiple regression analysis. Table 7 shows these results.

Table 7: 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.

Influence of Service Quality on Consumers' Choice of 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) model, which emphasizes that service quality significantly impacts 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 Fuel Station Location on Consumer's Choice of Fuel Service Station
The regression analysis results in Table 7 reveal that the location of a retail fuel service station positively influences consumers' decisions regarding which station to patronize (β=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 Consumers' Choice of Fuel Service Stations
Promotional programs show a positive influence on consumer choice with a β coefficient of 0.003, shown by the regression results in Table 7. 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 added value 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 on Consumer's Choice of Fuel Service Station
The findings in Table 7 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 impact 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 on Consumer's Choice of Fuel Service Stations
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 also 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.

Degree of Consumer Loyalty toward Preferred Retail Fuel Service Stations

Table 8: Results on the extent to which fuel consumers are loyal to preferred fuel service station brands

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 so 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

The findings in Table 8 reveal that fuel consumers in Lusaka Zambia exhibit indifferent behavior towards retail fuel service station brands. Most respondents acknowledge having a preferred fuel service station brand but do not exclusively refuel at the preferred station. This suggests that while consumers may have a preferred brand, their loyalty is not strong enough to prevent them from switching stations based on other factors. This heterogeneous behavior contributes to the stiff competition encountered by OMCs due to frequent consumer switching behavior, driven by minimal brand loyalty. Additionally, respondents have a perception that fuel service stations offer similar products and services, further underlining their indifferent behavior toward specific brands. Additionally, respondents have a perception that fuel service stations offer similar products and services, further underlining their indifferent behavior toward specific brands indicated in Table 8. Nonetheless, respondents agree to highly recommend their preferred fuel station brand to families and friends. 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 considered a more efficient strategy than attracting new customers, consequently contributing to an increased market share (Dhevika, et al., 2013).

Conclusion

In conclusion, fuel remains a critical commodity worldwide, particularly in developing nations like Zambia, where it is essential for driving the economy. With the limited adoption of electric motor vehicles, the prevalence of petrol and diesel-powered motor vehicles continues rising, creating an opportunistic environment for new fuel marketers. This surge

has resulted in fierce competition among OMCs in Zambia. Hence this study sought to assess the primary factors influencing consumer choice of fuel station to provide insights to OMCs into what factors consumers deem important and drive their choice of a fuel station. The study found that consumers' choice of fuel stations is driven by both tangible and intangible factors. Retail consumers prioritize fuel stations that offer a variety of products and services such as consistent fuel options, auto shops, tire pressure checks, vehicle maintenance services, automotive products, pharmacies, ATMs, food outlets, convenience stores, and other non-fuel amenities that are unique to consumers for a one-stop destination. Additionally, the study establishes that factors significantly influencing retail consumer preference for a fuel service station are high service quality, convenient location, reputable brand image, offering of assorted promotional programs, and availability of non-fuel amenities at service stations. Moreover, the study revealed that the petroleum retailing business is characterized by heterogeneous consumer switching behavior, stressing the need to implement loyalty programs, aimed at bolstering brand loyalty, subsequently enhancing customer retention and acquisition. Finally, the findings of this study are consistent with the broader literature on consumer behavior in the retail fuel sector. They are further supported by the Engel, Blackwell, and Kollat (EBK) model, which demonstrates how consumers navigate the buyer decision process based on influencing factors they assess.

Recommendations

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. Finally, expanding non-fuel amenities such as partnering with various local businesses to provide supplementary products and services will create a more comprehensive and convenient service experience.

Limitations

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. 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. Consequently, the study cannot ascertain whether the factors influencing consumer choices remain consistent over time. 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.

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