DETERMINANTS OF MOTORISTS CHOICE OF A PETROL STATION IN KENYA
A SURVEY OF THIKA SUB COUNTY

1° Samuel Mwenda
Jomo Kenyatta University of Agriculture and Technology
samymwenda@yahoo.com

2° Dr. Margaret Oloko
Jomo Kenyatta University of Agriculture and Technology

Abstract

Choice presupposes the existence of alternative courses of action and implies access or ability to follow any of the available courses of action without hindrance. Consumers make decisions by allocating their scarce income across all possible goods in order to obtain the greatest satisfaction. Thus, this study sought to investigative the determinants of motorist choice of a petrol station in Kenya with focus on service quality, accessibility, brand preference, promotion and price. The study employed a descriptive research design and was carried out in Thika Sub County in Kiambu County, Kenya. A sample of 260 respondents was randomly selected from each of the 12 petrol stations in Thika town. To collect data for the study a questionnaire was used. The questionnaires were administered to the sampled respondents and the data collected was analyzed using descriptive and inferential statistics using the Statistical Package for Social Sciences. To establish the relationship between the dependent and the independent variables regression analysis was used. The study findings established that service quality, accessibility, brand preference and promotion influences the choice of a petrol station by motorist in Kenya while price had no influence on motorists choice of a petrol station. The study findings revealed that service quality, accessibility, brand preference, promotion and prices positively influences the motorists’ choice of a petrol station in Kenya. The study concluded that the choice of a petrol station by motorists is influence by several factors among them service quality, accessibility, brand preference and promotion.
1. INTRODUCTION

Choice presupposes the existence of alternative courses of action and implies access or ability to follow any of the available courses of action without hindrance. Quality of individual choices is usually influenced by information about the available options (Olalekan, Babatunde & Ishola, 2015). Consumers make decisions by allocating their scarce income across all possible goods in order to obtain the greatest satisfaction. As such, decisions made by a consumer are heavily influenced by her perception of the environment and understanding of separate events, which are highly individualistic and agent-specific. In addition, consumers’ complex nature is shaped by many factors (personal beliefs, purchase experiences, marketing programs and communication) which ultimately influence their decision making process (Posavac, 2012).

Consumers make decisions every day concerning different aspect of their daily lives. In the most general terms, a decision is the selection of an option from two or more alternatives (Schiffman & Kanuk, 2007). However, in today’s market environment the competition has become too huge to face scarce resources and sustain profitable customers for a longer period (Dutsenwai et al., 2015). The increased competition has translated into more power and choice for consumers (PWC, 2012). The intense competition in terms of product similarity and increased number of competing brands in the market have led the marketers to consider and study the factors that are influential in consumers’ brand choice decisions and behaviors (Khan & Rohi, 2013). As such, most large companies research consumer buying decisions deeply with an aim to find answers to questions such as what consumers buy, where they buy, how and how much they buy, when they buy, and why they buy and how they dispose what they have bought and don’t need (Kotler, 2006).

The Petroleum Industry in Kenya

Petroleum fuels constitute the main source of commercial energy in Kenya. Kenya is a net importer of petroleum products and has a refinery owned and managed by the Kenya Petroleum Refineries Ltd (KPRL), an 800 km cross country oil pipeline from Mombasa to Nairobi and Western Kenya with terminals in Nairobi, Nakuru, Eldoret and Kisumu, run by the Kenya Pipeline Company (KPC). The sector also boasts of over 30 oil importing and marketing companies comprising of five major companies namely Shell, Total, Kenol/Kobil, Oil Libya, Chevron, and other emerging oil companies, which include the Government, owned National Oil Corporation of Kenya (NOCK, 2015).

The key institutions involved in regulating the oil and gas sector are currently the Ministry of Energy and the National Oil Corporation of Kenya Limited (NOCK). The sector, which was liberalized in 1994, has since seen a lot of growth and improvements in quality and level of service. However, the sector faces several challenges which include proliferation of substandard petroleum dispensing and storage sites which pose environment health and safety risks; diversion of petroleum products destined for export into the local market by unscrupulous business people to evade tax and a dominance of the market by a few companies among others (ERC, 2015). In addition, the sector faces is regulated by stringent regulations on pricing and increased
competition hence the need to explore the factors that influence the choice of petrol station by motorists in Kenya.

**Problem Statement**

Consumers have developed more dynamic, complex and differentiated demands. These changes in consumer behaviour, reinforced by changes in the retailing sector, provide both threats and opportunities (Klaus, 2003). In addition, customers have become more confident and more demanding. They want products and services that satisfy them and have no time for those, which do not. More and more customers have a need to distinguish themselves from one another to express their individualism. As such, customers are nowadays tougher, more informed and so sensitive to poor service that they often walk away and never come back and to make it worse, the average dissatisfied customers tells 9 to 10 other people (Muciimi & Ngumo, 2014). Thus, for petrol stations to successfully market their products, they must measure the factors that influence consumer preference (Masese, 2014).

Today, customers often buy more than just fuel when visiting a fuel retail station (Netz & Taylor, 2002) and customer satisfaction appears to be driving the industry. In this regard, fuel retail stations are increasingly differentiating themselves through the additional services that are offered and the presence of convenience stores, car wash facilities and specialty stores increase the market share of a fuel station (Netz & Taylor, 2002). However, in Kenya the retail service stations in recent years have been experiencing challenging times. Some of the challenges include, increasing crude oil prices, higher pump prices, emergence of new independent players in the market, and an increase in the number of retail service stations (Masese, 2004). Thus, consumers will readily switch from one petrol station to another in case of dissatisfaction.

In addition, there have been many studies of what influences consumers in their decisions to purchase or consume in various industries in various parts of the world. For example, global studies by Olatokun and Nwonne (2012), Hillingdon Times (2006), Bekana (2010) and Lertyinggyot (2010) have examined various factors influencing consumer choice. In Kenya, studies by Ofwona (2007), Munyoki and Wachira (2011), Apungu (2013) and Marami (2006) have also investigated the determinants of consumer choice in both the petroleum sector and other industries as well. However, most of studies used focused on local geographical and demographic factors such as; population, median income, number of cars, proximity to airport, downtown and highways with few of them focusing on service quality, accessibility, brand preference and promotion. In addition, most studies in Kenya on consumer choice have focused on the telecommunication sector. Thus, a gap in literature which this study intents to fill by investigating the determinants of motorists’ choice of a petrol station in Kenya.

**Research Objectives**

The main objective of this study was to explore the determinants of motorists’ choice of a petrol station in Kenya.

The specific objectives were to;
1. Examine the effect of service quality on motorists’ choice of a petrol station
2. Investigate the effect of accessibility on motorists’ choice of a petrol station
3. Explore the effect of brand preference on motorists’ choice of a petrol station
4. Investigate the effect of promotion on motorists’ choice of a petrol station
5. Determine the effect of price on motorists’ choice of a petrol station

A conceptual framework was developed out of the specific objectives, as represented in figure 1 below;

Independent Variables

- Service quality
- Accessibility
- Brand preference
- Promotion
- Price

Dependent Variable

Choice

Figure 1: Conceptual Framework

2. METHODOLOGY

Research Design

This study employed a descriptive research design. The population of interest comprised of the customers of the twelve petrol stations in Thika town. The study used a sample of 260 respondents. The sample was 10% of the average customers served by the 12 petrol stations in Thika Sub County. The sample was randomly selected from each of the 12 petrol stations in Thika Sub County.

The study used both primary and secondary data. To collect primary data the study a semi-structured questionnaire was used. Sources in secondary research included previous research reports, newspapers, magazines, journals and books and they were useful in the provision of qualitative data.
Service Quality and the Choice of Petrol Station by Motorists

This aimed at evaluating several statements on whether service quality influences the choice of a petrol station by motorists. The results are shown by table 1.

**Table 1. Service Quality**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service quality is a viable strategy for petrol stations aiming to</td>
<td>2.07</td>
<td>1.041</td>
</tr>
<tr>
<td>differentiate their services and products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To ensure customer retention petrol stations should deliver higher levels</td>
<td>2.00</td>
<td>.988</td>
</tr>
<tr>
<td>of service quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good service quality helps petrol stations to establish customer value</td>
<td>2.06</td>
<td>.965</td>
</tr>
<tr>
<td>and ultimately satisfying consumer needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorist are appealed the easiness and simplicity of the process of</td>
<td>2.01</td>
<td>.981</td>
</tr>
<tr>
<td>filling fuel, precision and correctness of liter in a petrol station</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality reflects the motorists expectations about the petroleum product</td>
<td>2.12</td>
<td>1.043</td>
</tr>
<tr>
<td>or service offered at a petrol station</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petrol stations can improve service quality in terms of politeness of</td>
<td>2.10</td>
<td>.990</td>
</tr>
<tr>
<td>employees and quick response to customer complaints</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendliness of petrol station staff is a critical factor in service station</td>
<td>2.13</td>
<td>1.032</td>
</tr>
<tr>
<td>selection by motorists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petrol station attendants' appearance and product knowledge influences</td>
<td>2.01</td>
<td>1.009</td>
</tr>
<tr>
<td>consumer choice of a petrol station</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings on table 1 show that the highest mean value was 2.13, which corresponds to the statement “friendliness of petrol station staff is a critical factor in service station selection by motorists”. The value corresponds to the scale value of 2, which indicates that the respondents agreed. The lowest mean value is 2.01 which corresponds to the statement that motorist are appealed the easiness and simplicity of the process of filling fuel, precision and correctness of liter in a petrol station and petrol station attendants' appearance and product knowledge influences consumer choice of a petrol station which indicates that the respondents have agreed. All the mean values correspond to the scale value hence an indication that the respondents agree that service quality influences the choice of a petrol station by motorists.

Accessibility and the Choice of Petrol Station by Motorists

This aimed at evaluating several statements on whether accessibility influences the choice of a petrol station by motorists. The results are shown by table 2.
Table 2. Accessibility

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorists always consider accessibility preferences such as entering the petrol station, speed limits, turn restrictions and other service factors</td>
<td>2.13</td>
<td>1.125</td>
</tr>
<tr>
<td>Fuel service providers should create shopping environments that are easily accessible and offer speed service</td>
<td>2.05</td>
<td>0.891</td>
</tr>
<tr>
<td>Motorists tend to drive to a petrol station with the good visibility access points.</td>
<td>1.90</td>
<td>0.921</td>
</tr>
<tr>
<td>Motorists do not like to wait to refuel and tend to avoid stations where back up problems exist</td>
<td>2.06</td>
<td>1.007</td>
</tr>
<tr>
<td>The number of pumps that can refuel cars affects traffic flow on a petrol station</td>
<td>2.04</td>
<td>1.018</td>
</tr>
<tr>
<td>Motorists always give priority to the distance factor and the convenience factor in a petrol station</td>
<td>2.08</td>
<td>1.089</td>
</tr>
<tr>
<td>Petrol station accessibility or convenience is an important variable that has a significant influence on motorists choice</td>
<td>2.11</td>
<td>1.041</td>
</tr>
<tr>
<td>The closer a petrol station to a major road or traffic flow, the more likely the motorists will visit the station</td>
<td>2.01</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The results on table 2 shows that the highest mean value is 2.13 which indicates that motorists agree that they consider accessibility preferences such as entering the petrol station, speed limits, turn restrictions and other service factors. The lowest mean value is 1.90, which indicates that motorists strongly agree that they tend to drive to a petrol station with the good visibility access points. On average, most of the scale values correspond to the scale value 2, which indicates that the respondents agree that accessibility influences the choice of a petrol station by motorists in Kenya.

Brand Preference and the Choice of Petrol Station by Motorists

This aimed at evaluating several statements on whether brand preference influences the choice of a petrol station by motorists. Table 3 shows the results obtained

Table 3. Brand Preference

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand choice indicates the consumer’s selective choice of particular brand and shows the preference of a specific brand</td>
<td>2.05</td>
<td>.985</td>
</tr>
<tr>
<td>Motorist always consider a fuel station overall image and added</td>
<td>2.04</td>
<td>.980</td>
</tr>
</tbody>
</table>
Motorists consider symbolic and functional features, which are linked by the market to a particular brand.

Motorists consider brand and the reputation of a petrol station as the most important factors.

Brand can be used as a strong strategic weapon and as an ideal differentiator to build a lifetime image in customers’ minds.

A petrol station image and reputation has a critical impact in building motorist loyalty towards the station.

Motorists in Kenya prefer international brand compared to government and local owned brands.

Motorists prefer trusted and well-known brand, rather than going in for lesser known or unknown brands.

The results on table 3 shows the highest mean value is 2.06, which indicates that motorists agree that brand and the reputation of a petrol station are the most important factors and a petrol station’s image and reputation plays a critical role in building motorist loyalty towards the station. The results also indicate the lowest mean values are 1.97 and 1.95 which indicates that motorists strongly agree that they prefer international brand compared to government and local owned brands and prefer trusted and well-known brand, rather than going in for lesser known or unknown brands. On average, the results show that most of the respondents agree that brand preference influences the choice of a petrol station by motorists in Kenya.

**Promotion and the Choice of Petrol Station by Motorists**

This aimed at evaluating several statements on whether promotion influences the choice of a petrol station by motorists. The results are shown by table 4.

**Table 4. Promotion**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotional offers serve as a motivational force that influences motorist to return to a specific petrol station</td>
<td>2.03</td>
<td>1.086</td>
</tr>
<tr>
<td>Promotion reinforces publicity actions to promote the purchasing of a certain product by motorists</td>
<td>2.05</td>
<td>1.067</td>
</tr>
<tr>
<td>Effective promotion by petrol stations gives identification to the</td>
<td>2.07</td>
<td>1.032</td>
</tr>
</tbody>
</table>
company and also facilities in building loyal customers

Promotion by petrol stations communicate information regarding the stations product and enhances the brand profile and values

Communicating about a petrol station via medias such as newspaper, television, and radio could help to create awareness to motorists

Different promotional offers like discounts, point-of-purchase displays by petrol stations create a better sale impact to motorist

Having attractive promotions attracts motorists to use the service at the petrol station.

Petrol stations should conduct more sales promotions because it helps in attracting more customers to the petrol station

The findings on table 4 indicates that the highest mean values are 2.20 and 2.17 which shows that the respondents agreed that different promotional offers like discounts, point-of-purchase displays by petrol stations create a better sale impact to motorist and having attractive promotions attracts motorists to use the service at the petrol station. The results also indicate that the lowest mean values are 2.03 and 2.05, which shows that the respondents agreed that promotional offers serve as a motivational force that influences motorist to return to a specific petrol station, and promotion reinforces publicity actions to promote the purchasing of a certain product by motorists. On average, this finding indicates that the respondents agree that promotion influences the choice of a petrol station by motorists in Kenya.

**Price and the Choice of Petrol Station by Motorists**

This aimed evaluating several statements on whether price influences the choice of a petrol station by motorists. Table 5 shows the results obtained.

**Table 5. Price**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel price has been identified as one of the key variables affecting the demand of fuel</td>
<td>4.22</td>
<td>1.073</td>
</tr>
<tr>
<td>Fuel price has a direct impact on vehicle choice customers and customers tend to purchase more fuel-efficient vehicles</td>
<td>2.39</td>
<td>.944</td>
</tr>
<tr>
<td>Fuel price plays a lesser role in determining the choice of fuel by various motorists</td>
<td>4.28</td>
<td>1.002</td>
</tr>
<tr>
<td>Motorist react differently to fuels price increases in short-term than long-term</td>
<td>4.39</td>
<td>.948</td>
</tr>
</tbody>
</table>
Huge increase in the price of petrol reduces the demand and motorists switch to more efficient modes of transport 4.17 1.153

Fuel retail markets are prone to collusive behavior hence fuel stations increase prices arbitrarily 3.26 1.058

An increase in the fuel price leads to a reduction in the demand for fuel by motorists 4.60 5.049

Price is one of the key components in the service station business and it affects the sustainability and viability of the retailers 4.18 1.219

The results on table 5 shows that the highest mean values were 4.60 and 4.39 which means that the respondents disagreed that an increase in the fuel price leads to a reduction in the demand for fuel by motorists and motorists react differently to fuel price increases in short-term than long-term. The lowest mean values were 3.26 and 2.39, which means that the respondents were indifferent that fuel retail markets are prone to collusive behavior hence, fuel stations increase prices arbitrarily and the respondents agreed that fuel price has a direct impact on vehicle choice customers and customers tend to purchase more fuel-efficient vehicles. On average, the above findings indicate that respondents disagreed that price influences the choice of a petrol station by motorists in Kenya but there is a general agreement that motorists in Kenya tend to purchase fuel-efficient vehicles not based on the price of the fuel price.

4. INFERENTIAL STATISTICS

Model Summary

Table 6: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.527a</td>
<td>.278</td>
<td>.260</td>
<td>.529851</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Price, Service quality, Promotion, Brand preference, Accessibility

The findings on table 6 shows that the R square value is 0.278 which indicates that 27.8% of the variation in the dependent variable (choice) is explained by the study variables while 72.2% is explained by other factors not considered by the study. The study also shows that the correlation coefficient value (R) is 0.527, which indicates a strong relationship between the research variables.
ANOVA

Table 7: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>22.321</td>
<td>5</td>
<td>4.464</td>
<td>15.902</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>58.114</td>
<td>207</td>
<td>.281</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>80.435</td>
<td>212</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Choice

b. Predictors: (Constant), Price, Service quality, Promotion, Brand preference, Accessibility

The ANOVA results on table 7 shows that the regression model is significant since the P – value 0.000 < 0.05 at 95% confidence level. This shows that the regression model is a good predictor of the determinants of choice of petrol station by motorists in Kenya.

Regression Coefficients

To establish the relationship between the dependent and the independent variables regression analysis was used. The regression equation took the following form:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \]

Where;

\( Y \) = Choice of a Petrol Station

\( X_1 \) = Service Quality

\( X_2 \) = Accessibility

\( X_3 \) = Brand Preference

\( X_4 \) = Promotion

\( X_5 \) = Price

\( \beta_0 \) = Constant

\( \beta_1 - \beta_5 \) = Regression Coefficients

\( \varepsilon \) = Error term
Table 8: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.459</td>
<td>.262</td>
<td></td>
<td>1.755</td>
<td>.081</td>
</tr>
<tr>
<td>Service quality</td>
<td>.018</td>
<td>.074</td>
<td>.016</td>
<td>.246</td>
<td>.806</td>
</tr>
<tr>
<td>Accessibility</td>
<td>.094</td>
<td>.081</td>
<td>.085</td>
<td>1.166</td>
<td>.245</td>
</tr>
<tr>
<td>Brand preference</td>
<td>.022</td>
<td>.072</td>
<td>.021</td>
<td>.302</td>
<td>.763</td>
</tr>
<tr>
<td>Promotion</td>
<td>.425</td>
<td>.065</td>
<td>.448</td>
<td>6.528</td>
<td>.000</td>
</tr>
<tr>
<td>Price</td>
<td>.086</td>
<td>.047</td>
<td>.109</td>
<td>1.834</td>
<td>.068</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Choice

From the results on table 8, the resultant regression equation is as follows

\[ Y = 0.459 + 0.018X_1 + 0.094X_2 + 0.022X_3 + 0.425X_4 + 0.086X_5 + e \]

The regression results indicate that service quality, accessibility, brand preference, promotion and price positively influence the choice of a petrol station by motorists. This is shown by the Beta values of 0.018, 0.094, 0.022, 0.425 and 0.086. This indicates that there is a direct relationship between motorists’ choice of a petrol station and service quality, accessibility, brand preference, promotion and price.

5. SUMMARY

The findings on effect of service quality on the choice of petrol station by motorists in Kenya established that service quality influences the choice of a petrol station by motorists. The findings also revealed that service quality positively influences the choice of a petrol station by motorists. The findings on effect of accessibility on the choice of petrol station by motorists in Kenya established that accessibility influences the choice of a petrol station by motorists and that accessibility positively influences the choice of a petrol station by motorists.

The findings on effect of brand preference on the choice of petrol station by motorists in Kenya established that brand preference influences the choice of a petrol station by motorists. The findings also revealed that brand preference positively influences the choice of a petrol station by motorists. The findings on effect of promotion on the choice of petrol station by motorists in Kenya found that promotion influences the choice of a petrol station by motorists. Additionally, the study found that promotion positively influences the choice of a petrol station by motorists. The findings on the effect of price on the choice of petrol station by motorists in Kenya established that price does not influences the choice of a petrol station by motorists in Kenya but there was a general agreement that motorists in Kenya tend to purchase fuel-efficient vehicles not based on the price of the fuel price.

© Mwenda, Oloko  ISSN 2412-0294 1380
6. CONCLUSIONS

The study found that service quality, accessibility, brand preference and promotion influence the choice of a petrol station by motorists in Kenya while price does not. The study also found that other factors like reference groups, presence of convenience stores, efficiency, service deliver, good customer services, employees’ attitude and the mode of payment. Further, the study found that service quality, accessibility, brand preference and promotion positively influences the choice of a petrol station by motorists. Thus, the study concludes that the choice of a petrol station by motorists is influence by several factors among them service quality, accessibility, brand preference and promotion. The study concludes that price does not influence the choice of a petrol station by motorists and this is because oil prices in Kenya are controlled and most petrol stations retail at the same or similar prices.

7. REFERENCES


