

ASHESI UNIVERSITY COLLEGE

**INVESTIGATING FACTORS THAT INFLUENCE CONSUMER
CHOICE OF VEHICLE FUEL RETAIL BRANDS**

BY

RUWEIDATU SALIFU

Thesis submitted to the Department of Business Administration
Ashesi University College
In partial fulfillment of Bachelor of Science degree in
Business Administration

APRIL 2014

DECLARATION

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:.....

Candidate's Name:.....

Date:

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by Ashesi University College.

Supervisor's Signature:.....

Supervisor's Name:.....

Date:

ACKNOWLEDGEMENT

My foremost gratitude goes to God Almighty, for guiding my steps throughout the four years in Ashesi and most importantly for giving me the strength and grace to successfully complete this thesis.

My profound gratitude goes out to my supervisor Mr. Anthony Ebow Spio, whose knowledge, comments and feedback guided and enriched the substance of my study.

To Dr. Sena Agyepong, Dr. Charles Jackson, Frederick Anyan and Kwadwo Owusu Adjei, I say a very big thank you for sacrificing valuable time to hear my concerns and contribute significantly in your own special ways to the success of this study.

I also wish to express gratitude to my mum, Fuseina Salifu, other family members and friends for the undying support shown to me in numerous way throughout the process of this study. The generosity, care and emotional support were much appreciated. Thank you.

ABSTRACT

This research paper seeks to determine the relative importance of the factors that influence consumer choice of vehicle fuel retail brands.

Using the consumer choice criteria model which groups choice factors into hedonic and utilitarian criteria, this study introduces factors that are influential to brand choice. Hedonic criteria include brand image, brand loyalty, social influence and advertising. Utilitarian criteria on the other hand include price, product, convenience, value added services and side attractions.

This is a descriptive research, which involves both primary and secondary data. Using questionnaires, this study was targeted at two groups of vehicle drivers: personal drivers and commercial drivers at three main locations namely Berekuso, Kwabenya and Haatso.

The findings of this study show that personal drivers consider convenience as most influential while commercial drivers consider price as the most influential factor of choice of fuel retail brand.

Analyzing these findings, this study recommends that existing fuel retailers as well as potential new entrant should focus on setting up at locations where drivers can easily access the retailer when the need to purchase fuel arises. Fuel retailers should also consider price deals as well as low cost strategies that will attract price sensitive customer such as commercial drivers. These recommended strategies have the potential of increasing customer base, sales and profits.

Keywords - brand choice, consumer behavior, fuel retail brands, hedonic, utilitarian, brand.

TABLE OF CONTENTS

CHAPTER 1- INTRODUCTION	1
1.0 BACKGROUND	1
1.1 DEFINITION OF CONCEPTS	2
1.2 RESEARCH QUESTION	3
1.3 RESEARCH OBJECTIVES	3
1.4 SIGNIFICANCE OF THE STUDY	3
1.5 THEORETICAL FRAMEWORK	4
1.6 ORGANIZATION OF THESIS	5
CHAPTER 2- LITERATURE REVIEW	7
2.0 INTRODUCTION	7
2.1 CONSUMER BUYING BEHAVIOR	7
2.2 CONSUMER DECISION MAKING PROCESS	10
2.3 HEDONIC AND UTILITARIAN CHOICE CRITERIA	12
2.3.1 HEDONIC FACTORS	14
2.3.2 UTILITARIAN FACTORS	15
2.4 SIMILAR RESEARCHES	17
2.5 CONCLUSION	18
CHAPTER 3- METHODOLOGY	20
3.0 INTRODUCTION	20
3.1 RESEARCH QUESTION	20
3.2 RESEARCH OBJECTIVES	20
3.3 TYPE OF STUDY	21
3.4 SAMPLING	21
3.4.1 GEOGRAPHICAL SCOPE	22
3.4.2 SAMPLING METHOD	22
3.4.3 SAMPLE SIZE	22
3.5 DATA COLLECTION	23
3.6 RESEARCH INSTRUMENTS	23
3.6.1 QUESTIONNAIRE	23
3.7 DATA COLLECTION PERIOD	24
3.8 DATA ANALYSIS	24
CHAPTER 4- DATA REPRESENTATION AND ANALYSIS	26
4.0- INTRODUCTION	26
4.1 ANALYSIS OF DEMOGRAPHIC PROFILE	26
4.1.1 DEMOGRAPHICS OF PERSONAL DRIVERS	27
4.1.2 DEMOGRAPHICS OF COMMERCIAL DRIVERS	27
4.2 ANALYSIS OF CONTEXT SECTION	27
4.2.1 MOST PREFERRED BRAND	28
4.2.2 MOST PREFERRED BRAND FOR PERSONAL DRIVERS	28
4.2.3 MOST PREFERRED BRAND FOR COMMERCIAL DRIVERS	28
4.3 IMPORTANCE OF PURCHASING FUEL FROM THE PREFERRED BRAND.	29

4.4 SPECIFIC ANALYSIS OF CHOICE CRITERIA SECTION	30
4.4.1 HEDONIC FACTORS	30
4.4.2 UTILITARIAN FACTORS	32
4.5 GENERAL ANALYSIS OF CHOICE CRITERIA SECTION	36
4.5.1 PERSONAL DRIVERS	36
4.5.2 COMMERCIAL DRIVERS	37
4.6 SUMMARY OF MAJOR FINDINGS	38
CHAPTER 5- CONCLUSIONS & RECOMMENDATIONS	40
<hr/>	
5.0 CONCLUSION	40
5.1 RECOMMENDATIONS	40
5.1.1 PERSONAL DRIVERS- CONVENIENCE	40
5.1.2 COMMERCIAL DRIVERS- PRICE	41
5.2 LIMITATIONS	42
5.3 RECOMMENDATIONS FOR FUTURE RESEARCH.	42
APPENDIX	44
<hr/>	
6.1 QUESTIONNAIRE	44
REFERENCES	47
<hr/>	

LIST OF TABLES & FIGURES

Fig 2.1-Consumer Buying Behavior Model	9
Figure 2.2 -Consumer Decision Making Process.....	11
Figure 2.3- Consumer Choice Criteria Model	13
Table 3.1- Areas respondents were sampled from.....	22
Table 4.1: Demographic profile of respondents.....	26
Fig 4.2 -Personal Drivers.....	28
Fig 4.3- Commercial Drivers.....	28
Table 4.4 - Statistics on how important it is to purchase from a particular fuel retail brand.....	29
Fig 4.5 – Influence of brand loyalty.....	30
Fig 4.6 – Influence of brand image.....	31
Fig 4.7 – Influence of social influence.....	31
Fig 4.8 – Influence of Advertising.....	32
Fig 4.9 – Influence of convenience.....	33
Fig 4.10 – Influence of price.....	33
Fig 4.11 – Influence of product.....	34
Fig 4.12 – Influence of value added services.....	35
Fig 4.13 – Influence of side attractions.....	35
Fig 4.14 – Most influential factors of consumer choice – Personal drivers.	36
Fig 4.15 – Most influential factors of consumer choice – Commercial.....	37

CHAPTER 1- INTRODUCTION

1.0 Background

Annual petroleum consumption in Ghana has reached 1.8 million metric tonnes of refined petroleum products (Tema Oil Refinery, 2013). This high demand has resulted in a significant growth in the Oil and Gas industry with the influx of several industry players such as the Bulk Distribution Companies (BDCs) and the Oil Marketing Companies (OMCs). The bulk distribution companies supply refined petroleum products to the oil marketing companies whom in turn retail these products to final consumers. These oil-marketing companies have set up filling stations to provide refined petroleum products to fuel vehicles and machinery consumers. Some of these filling stations also offer value added services such as car maintenance, and usually have mini convenience shops (Gilat, 2012).

Currently, there are seventeen licensed Bulk Distribution Companies in Ghana, including Chase Petroleum, ECO, FuelTrade and Cirrus Oil. These BDCs are the major distributors of petroleum products to the Oil Marketing Companies (National Petroleum Authority, 2013). Also, there are about fifty-one operational OMCs who are registered members of the Association of Oil Marketers and licensed by the National Petroleum Authority to provide fuel to end users (AOMCS, 2013).

These oil-marketing companies have their own unique brand names, logos and colors that clearly distinguish them from one another. There are global

companies such as Shell and Total, as well as Ghanaian owned companies such as Goil. Some of these companies have been serving the Ghanaian market for over 30 years while others are new entrants to the fuel industry. Despite their unique brand and company history, these filling stations are competing in the same market to provide the same product benefit to consumers.

Having several oil marketing companies in Ghana, why do consumers prefer to buy fuel from a particular filling station instead of the several others, if the price and product benefit have marginal to no difference?

1.1 Definition of Concepts

Brand

According to the American Marketing Association, a brand can be defined as “a name, term, sign, symbol or design or a combination intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition” (American Marketing Association, 2011). Therefore, a brand is the unique mix of attributes that distinguishes a particular good or service from that of competitors.

Brand Preference

Brand preference is the bias a customer holds towards a particular brand. This is an indicator of the valuable position a brand occupies in the hearts and minds of consumers. Brand preference usually influences purchasing

intent of consumers since they are more inclined towards brands they prefer (Changa and Liub, 2009).

Consumer

In this study, the consumer is someone who drives a vehicle, and thus purchases fuel. This research will focus on personal and commercial vehicle drivers.

1.2 Research Question

- What are the main factors that influence consumer choice of fuel retail brands?

1.3 Research Objectives

- To determine the relative importance of factors that influence consumer choice of fuel retail brands.
- To identify the most preferred fuel retail brands.
- To provide recommendations on how fuel retail brands can take advantage of the main influences of brand choice.

1.4 Significance of the Study

This study, which aims to identify reasons why consumers choose one brand of fuel over another can be useful to petroleum industry players. With the rate at which new entrants are able to enter the fuel industry in Ghana, it is imperative for industry players to know how to compete strategically. There

is also a need to be aware of the relative importance of factors that attract buyers, in order to attract and retain customers.

Access to petroleum products in Ghana is satisfactory but there is a need to improve as population grows. Out of 1,700 petroleum products retail outlets, only 20% are filling stations (Oteng-Adjei, 2010). This goes on to show that there is still ample room for entry into the filling station section of petroleum products retailing. Small filling stations or even new entrants into the industry can benefit from these findings, in order to strategically position their brand, attract more customers and successfully compete with the already well-established filling station brands in Ghana. Also, potential new entrants can consider franchising the brands of already existing and successful fuel retailers.

Additionally, there have been several researches conducted on consumer choice among similar products around the world. However, to the best of literature search conducted for this study, no such research has been done on fuel brands in the Ghanaian context. This study therefore aims to contribute to existing literature on consumer choice and buying behavior when purchasing goods with similar product benefits and price.

1.5 Theoretical Framework

This research is based on three consumer behavior models namely: The Consumer Decision Making Process, Consumer Buying Behavior, and

Consumer Choice Criteria. The Consumer Decision Making process has five different stages of analyzing a consumer's decision to purchase a product. These include 1) need recognition, 2) information search, 3) evaluation of alternatives, 4) purchase decision and 5) post purchase behavior. Secondly, the Consumer Buying Behavior model identifies the level of involvement of a consumer in purchasing a product and the similarities of the brands available. There are four buying behaviors namely: Complex Buying Behavior, Variety Seeking Buying Behavior, Dissonance-Buying Behavior and Habitual Buying Behavior. Lastly, the Consumer Choice Model is made up of hedonic and utilitarian criteria. Hedonic criteria relate to experiential, abstract, subjective, emotional, symbolic and aesthetic benefits of a product. The utilitarian criteria on the other hand relate to objective, economic, rational, concrete and functional benefits of a product. The theoretical framework mentioned above provides a structure on which this study will be based on.

1.6 Organization of thesis

This study will be organized into the following 5 chapters.

Chapter 1- Introduction

This chapter provides a brief background of the fuel retail industry in Ghana. It also explains the research question, objectives of the study and its significance to the fuel industry as well as its contribution to existing literature on brand choice.

Chapter 2- Literature Review

The literature review examines and analyzes text and literature relating to trends and models of Consumer Buying Behavior and the Consumer Decision-Making Process. It also analyzes the factors that affect consumer behavior categorized under the Hedonic and Utilitarian Choice Criteria.

Chapter 3- Methodology

The methodology outlines the approach employed to gather data for this research. It also explains how the data will be analyzed to support the findings of this study.

Chapter 4 - Findings

This chapter presents an in depth analysis of the data collected and the findings gathered, as well as juxtaposes findings with the secondary data presented.

Chapter 5- Conclusions and Recommendations

Conclusions from data findings and analysis, as well as recommendations to fuel retail brands are presented in this chapter.

CHAPTER 2- LITERATURE REVIEW

2.0 Introduction

This chapter is focused on existing literature that is relevant to the subject matter of this study. The literature review will comprise of models and studies, which will shed more light on the topic and provide a framework for conducting the study. These models include the consumer decision-making process, consumer buying behavior model, and the consumer choice criteria. This literature review further provides a comprehensive explanation of the factors that influence consumer choice with an in-depth analysis of hedonic and utilitarian factors. It also includes an analysis of similar researches conducted on consumer choice.

2.1 Consumer Buying Behavior

According to Belch and Belch (2007), consumer behavior can be defined as “the process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires” (Variawa, 2010). In understanding consumer choice, it is important to understand consumer-buying behavior. There are generally four types of consumer buying behavior that are based on the kind of product being purchased, level of involvement and significant difference between brands (Kotler & Armstrong, 2010). Blackwell, Miniard & Engel (2001), further define the different kinds of buying behavior as stated below.

Complex Buying Behavior- This behavior is seen when the consumer has a high involvement in the product purchase decision. This means the consumer might seek to collect a lot of information on features and attributes of the product before the choice to buy is made (Kotler & Armstrong, 2010). Products under this buying behavior face financial risk, physical risk and a risk to one's ego since the consumer's involvement is very high. Buying a car for example involves a complex buying behavior since the buyer is highly involved and there is a significant difference in car brands.

Dissonance-Reducing Buying Behavior- In this case, the brands offering these products have minimal differences and consumer involvement is high (Kotler & Armstrong, 2010). When buying floor tiles for a home, the consumer is highly involved in this decision but the difference among brands is little to none.

Habitual Buying Behavior- This buying behavior has low consumer involvement and a few differences between brands (Blackwell, Miniard & Engel, 2001). Buying of the product involved is habitual hence consumers buy the product without second thoughts on what brand to choose. This buying behavior is especially relevant to this study since fuel can be considered an everyday-use product that requires less involvement and difference between products offered by brands is minimal.

Variety Seeking Buying Behavior- The consumer's involvement with the product under this buying behavior is low but differences between brands are significant (Kotler & Armstrong, 2010). For example, a consumer may decide to buy a different brand of window cleaner, and evaluate it during consumption. Brand switching is high with products under this category.

\	High involvement	Low involvement
Significant differences between brands	Complex buying behaviour	Variety-seeking behaviour
Few differences between brands	Dissonance-reducing behaviour	Habitual buying behaviour

Fig 2.1-Consumer Buying Behavior Model

Source: (Kotler & Armstrong, 2010)

Analyzing this model, vehicle fuel retail brands fall under the habitual buying behavior segment since fuel is an everyday use product that requires less consumer involvement and the difference between the products of different brands are marginal.

Therefore, after identifying that fuel is a product that falls under habitual buying behavior, this study seeks to identify what influences consumers to prefer a particular brand since the difference between brands are minimal and there is low consumer involvement.

2.2 Consumer Decision Making Process

Consumers go through several stages before making a choice to purchase a particular product. The early researchers on consumer decision-making such as Nicholas Bernoulli and John Von Neumann took a more economic approach, where they considered the purchase stage as the only decision-making factor (Weber, 1987). The utility theory is one such economic approach where it is assumed that decisions are based solely on expected outcomes and benefits (Schoemaker, 1982 & Edwards, 1954). Contrary to the economic approach of consumer decision making, contemporary research now provides models that factor in several stages of the consumer decision-making process (Kotler and Armstrong, 2010). These models are guided by the theory that actors make rational choices based on several factors (Erasmus, Boshoff & Rousseau, 2001). Today, the consumer decision-making process is seen as a complex multi-staged process where several factors influence need recognition and includes a sequence of actions to satisfy or dissatisfy the need (Engel et al, 2001). However, Bell (2011) has argued that the consumer decision-making process needs to consider another important factor, which is the human emotion.

There are five different stages identified in the consumer buying process with every purchase. The first stage is *need recognition* where the consumer identifies a need, want or problem. After the need is recognized, the consumer *searches for information* on how to satisfy that need. The

information source can be gathered from personal, commercial, public or experience sources. For example when buying a vehicle, a consumer may actively search online, in garage shops and ask for recommendations from social groups. After gathering the needed information, the consumer *evaluates the alternatives* and compares possible products or services that have the potential to satisfy the particular need. At this stage for example, a consumer has searched for information and is comparing a Toyota, Honda or Kia. After this is done, the consumer goes on to make the *purchase decision*, where the consumer actually buys the preferred car. The final stage is the *post- purchase behavior*, where the product or service purchased is re-evaluated by the consumer. This is to ensure that the right purchase decision was made (Kotler & Armstrong, 2010).

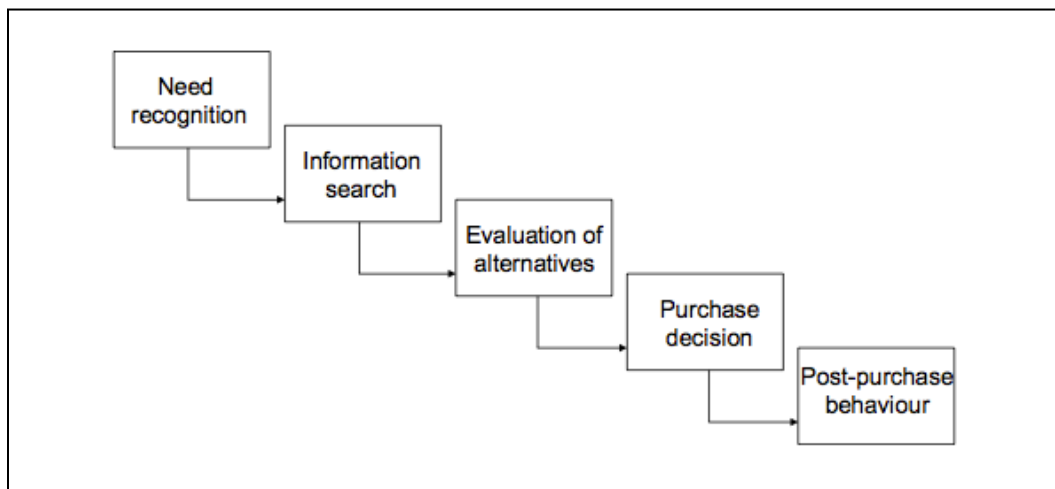


Figure 2.2 -Consumer Decision Making Process

Source: (Engel et al, 2001)

This study focuses on the third and fourth stages of the decision making model. This is where the consumer evaluates the alternatives of fuel retail brands based on some factors, and makes the final purchase decision. These factors have been identified below.

2.3 Hedonic and Utilitarian Choice Criteria

The reasons consumers have for preferring one brand of a product to another affects the buying behavior and final choice of a product. These reasons could be categorized under either hedonic or utilitarian choice criteria (Batra & Ahtola, 1990). The utilitarian criteria, which relate to objective, economic, rational, concrete and functional purchase dimensions, include attributes such as low price, product features and warranty (Batra & Ahtola, 1990). Williams (2002), also states that the hedonic criteria relates to benefits arising from experiential, subjective, emotional, symbolic, non-rational and aesthetic product benefits. These may include prestige, quality, style, loyalty, and brand name. These benefits contribute in different ways to influence the overall consumer behavior (Batra & Ahtola, 1990).

Furthermore, research has proven that most luxury products are primarily consumed based on hedonic reasons, while products that seem like a necessity are consumed for utilitarian motives (Khan & Dhar, 2004). Therefore the main difference between goods is luxury and necessity (Khan & Dhar, 2004). Examples of hedonic influenced products include jewelry, designer clothes, luxury cars and expensive watches, while utilitarian

influenced products include personal computers, minivans and detergents (Dhar & Wertenbroch 2000). However a product or service can fall under the any of these two consumer choice criteria (Batra & Ahtola, 1991). Dhar and Wertenbroch (1999) further confirm that a product or service can fall under any of the two criteria. The differences is a matter of discretion and perception. A research by Okada (2005) explains that people consume time and money in exchange for a good or service. Consumers prefer to consume time on hedonic products owing to the fact that these products are more difficult to choose, and prefer to pay money and spend less time on utilitarian products (Okada, 2005).

The factors grouped under the hedonic and utilitarian criteria in the diagram below have been introduced to suit the nature of this study.

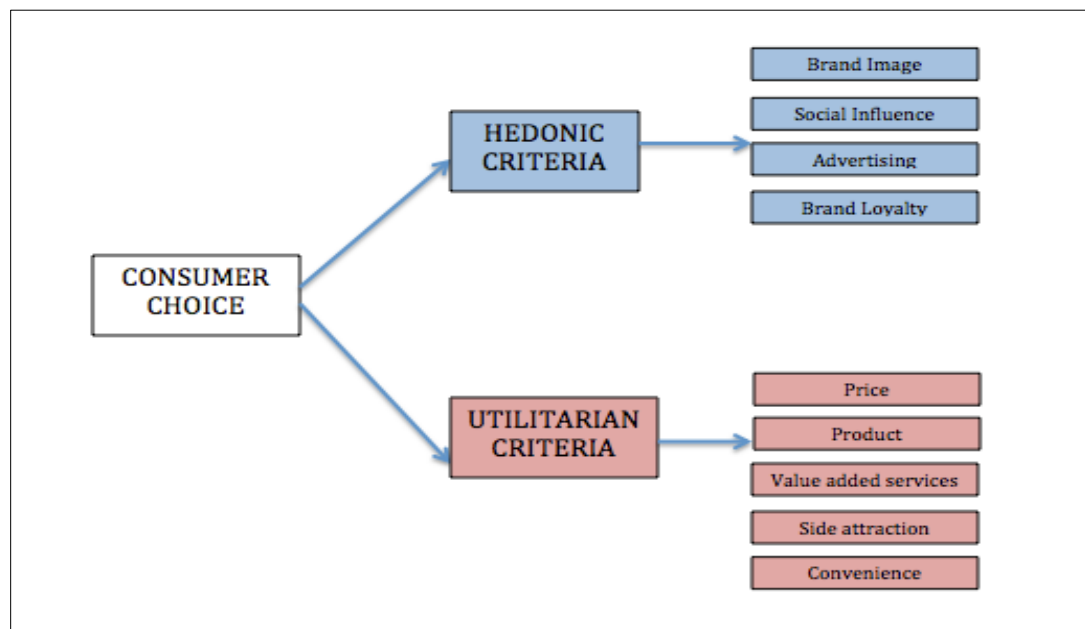


Figure 2.3- Consumer Choice Criteria Model

2.3.1 Hedonic Factors

Brand Image

The image of a brand is the set of beliefs a consumer holds about a particular brand (Kotler & Armstrong, 2010). Keller's article defines brand image as "perceptions about a brand as reflected by the brand associations held in consumer memory" (Keller, 1993). A strong brand image positively affects consumer-buying decision and can create brand loyalty with customers. It also positively affects the firm's market position and secures it a sustainable competitive advantage (Sondoh et al, 2007).

Brand Loyalty

Another determinant of consumer choice is how loyal consumers are to a specific brand. Brand loyalty measures the willingness and ease of consumers to switch brands. In such instances, consumers who are loyal to a brand prefer that brand and ignore other brands despite similarities in the products the other brands are offering (Aaker, 1991). According to Aaker, there are different kinds of brand loyalty. The non-consumers are those who are not loyal to a brand hence do not buy products from that brand. Price switchers are loyal customers who are price sensitive hence they will switch brands under better price conditions. Passive loyal consumers are those who are very loyal to the brand hence purchase its products on a habitual basis rather than on logic. Fence sitters are indifferent between two to a few more brands hence they are loyal to a handful of brands. Finally, the committed are the ones who are strictly loyal to a particular brand. The choice to purchase a

product can heavily be influenced by the degree of loyalty the consumer has for the brand providing that product or service (Aaker, 1991).

Social Influence

In the decision making process, the search for information is an integral part. At this stage, the consumer searches for information after recognizing the need to be satisfied. Consumers can gather information from other consumers such as family, friends and colleagues. The experiences and knowledge of the need, and possible products to satisfy that need emanating from these information sources can influence the consumer's choice (Yakup, Mücahit & Reyhan, 2011). A study of people in Turkey concludes that society and culture can influence consumer choice (Yakup et al, 2011).

Advertising

According to American Marketing Association "advertising is any paid form of non-personal presentation and promotion of ideas, goods and services by an identified sponsor." Advertising creates awareness, aids in promoting sales and re-enforces a good brand image. Advertising has the potential of appealing to the emotions of consumers and thus influences consumer choice (Holbrook & Batra, 1987).

2.3.2 Utilitarian Factors

Price

Price is a key component of the marketing mix and represents the amount charged or value a consumer exchanges for a product of service (Kotler &

Armstrong, 2010). On the other end, price is what a firm receives for selling its goods or services. Price, apart from brand name, is an important influence of consumer choice (Lichtenstein, Ridgway & Netemeyer, 1993).

Product

Fuel retailers have different levels of fuel usually named "regular," "premium" and "super." These levels are offered based on the fuel's octane content, with regular having at least an octane level of 87, premium ranges from 88-90 and super contains 91 or higher (Minnesota Department of Commerce, 2004). Octane rating is a standard measure of the performance of a motor fuel. The higher the octane level, the more compression the fuel is able to withstand without igniting (Petro-Canada, 2013). Additionally, some fuel retailers seek to differentiate the products they offer by branding these levels of fuel differently, aimed at providing consumers products with appropriate fuel efficiency and energy performance. For example, in Ghana there is Shell V-power, Total Premier Effimax and Engen Primax Unleaded. Consumers may be attracted to a particular fuel station based on the availability of products with additional value.

Convenience

For the purpose of this study, convenience means the availability of fuel retail stations at vantage points. This means when a consumer reaches the search for information stage of the buying process, the availability of fuel retail stations can affect the purchase choice of the consumer. Also, due to the fact that fuel is a product that is purchased on a frequent basis and can

be considered as a commodity, it is important for a consumer to locate a fuel station whenever the need arises.

Value Added Service

The availability of value added services has a potential of significantly influencing a consumer's decision to purchase fuel from a specific fuel retail brand. Some fuel retail brands provide extra services such as checking the state of the car oil and cleaning the windscreen while the consumer is purchasing fuel (Gilat, 2012). These value added services mostly come at no extra cost to the consumer.

Side Attractions

Most fuel stations have convenience shops and vehicle maintenance workstations for the benefit of consumers. The availability of a convenience shop that will satisfy a particular consumer's need and availability of ATM machines can influence the choice of fuel brand to purchase from. Busy commuters perceive a fuel station beyond its function of filling up an empty tank to being a vital source for numerous on-the-run services (Gilat, 2012).

2.4 Similar Researches

This research, aimed at understanding the influences of consumer choice of fuel retail brands, is similar to a research conducted by Thomas T.J. Spronk. This was a cross-national study on consumer brand choice criteria conducted in August 2010 using brands of soft drinks, ice cream and sneakers (Spronk, 2010). Aimed at explaining why and how customers choose a brand across

nations, Spronk used surveys and interviews to collect data from a total of 426 students using the snowball and convenience sampling technique. Factors under the brand choice criteria presented in Spronk's research include perceived quality, country of origin, price signal and social responsibility. Spronk (2010) concluded that perceived quality has a significant influence on brand choice.

Other researchers such as Karjaluoto et al, (2005) conducted a study on factors affecting consumer choice of mobile phones. This research concluded that factors such as innovative services, multimedia, design, brand name and price were influential to choice of mobile phones (Karjaluoto et al, 2005). Another research on influential factors of consumer choice of car brands shows that price and brand name were considered the most important influential factors (Hasan, 2008).

2.5 Conclusion

A consumer goes through five different decision making stages in purchasing a product. This study focuses on the fourth stage, which is when the actual purchase decision is made. Consumer buying behavior under the purchase decision stage can be categorized under four main types based on the kind of product being purchased, level of involvement and significant difference between brands. Fuel purchase falls under the habitual buying behavior since this product can be considered as a commodity. In purchasing fuel, there is minimal consumer involvement, and different brands offer relatively the

same fuel benefit. The consumer choice criteria model can be classified under hedonic (emotional) and utilitarian (rational). The purchase decision stage of the consumer decision-making model is linked to the choice criteria model, since this study analyzes the purchase decision of a consumer according to the utilitarian and hedonic factors. This makes up the main theoretical framework for this study. The research conducted by Spronk, Hasan and Karjaluoto are similar to this particular research since they sought to identify the main factors of consumer choice, focusing on brands of soft drinks, ice cream, sneakers as well as cars and mobile phones respectively. The findings of these studies were used to juxtapose the findings this research presented.

To the best of literature search however, there has not been any research conducted to determine the relative importance of influences of choice on products with marginal benefit and price differences such as fuel in Ghana. Therefore, this research seeks to determine the relative importance of factors that influence choice of fuel retail brands in Ghana. This study does not seek to understand or explore why certain factors are more important than others.

CHAPTER 3- METHODOLOGY

3.0 Introduction

Consumers have several reasons for purchasing a particular brand. This study seeks to identify the factors responsible for consumer choice of fuel retail brands in Ghana. It is also aimed at identifying the most preferred brand and provide recommendation on how fuel retails can take advantage of the main influences of fuel brand choice.

This chapter outlines the approach employed to gather data for the study. It also explains how the data will be analyzed to support the findings deduced from the data collected.

3.1 Research Question

- What are the main factors that influence consumer choice of fuel retail brands?

3.2 Research Objectives

- To determine the relative importance of factors that influence consumer choice of fuel retail brands.
- To identify the most preferred fuel retail brand
- To provide recommendations on how fuel retail brands can take advantage of the main influences of brand choice.

3.3 Type of Study

This is a descriptive research since it was aimed at identifying and explaining why consumers prefer a particular fuel retail brand. It sought to describe the most dominant factors considered most important as categorized under the hedonic and utilitarian factors mentioned earlier.

Furthermore, a quantitative approach was used since this study seeks to determine the factors that are considered important by a greater number of participants. A quantitative approach focuses on researches with a statistical and numeric analysis (Johnson & Onwuegbuzie, 2004). The source of data used was both primary and secondary data, and the unit of analysis is the individual.

3.4 Sampling

The target population of this research is made up of people who drive and therefore purchase fuel for the vehicles they drive on a regular basis. This population has been further divided into two sub groups namely commercial drivers and personal drivers. For the purpose of this study, commercial drivers are drivers who drive vehicles used by the public, and in the process make monetary gains, in this case specifically taxi drivers. Personal drivers on the other hand are drivers who own and drive cars for their personal benefit. The participants in this study were sampled from Berekuso, Kwabenya and Haatso, which are suburbs of Accra. These locations were selected due to proximity to the researcher and resource limitations.

3.4.1 Geographical Scope

A total of 20 respondents were selected from each of the three locations. A total of 10 respondents represented personal drivers and 10 represented commercial drivers at each location.

LOCATION	Personal Drivers	Commercial Drivers
Berekuso	10	10
Kwabenya	10	10
Haatso	10	10
TOTAL	30	30

Table 3.1- Areas respondents were sampled from

3.4.2 Sampling Method

Non-probability sampling methods are useful for studies that investigate people's attitudes and perceptions (Kumar, 2010). Therefore, convenience sampling, which is a non-probability sampling technique, was employed for this study. The sample for this study was drawn from the commercial drivers and personal drivers sub group. This sampling method was suitable for this study because participants were chosen based on availability, the fact that they are drivers who purchase fuel regularly, and their willingness to participate in the survey.

3.4.3 Sample Size

A total of 60 participants were used in this study. Personal drivers made up 30 respondents while the other 30 were commercial drivers (taxi drivers).

NB: This research purposively excluded people who had fuel cards such as the Total Card. This is because having a fuel card can introduce bias towards a particular brand hence will affect the credibility of the research.

3.5 Data Collection

Primary data was collected during this research, where the researcher went out to the field to collect new data from participants using a questionnaire. This data was then analyzed to present the key findings and conclusions pertaining to choice of fuel retail brands.

3.6 Research Instruments

Questionnaires were the data collection instrument used for this study. This is especially because according to Johnson and Onwuegbuzie (2004), questionnaires are appropriate survey tools for quantitative studies. The questionnaires were hand delivered to the participants who were literate and conversant with the English language. However, in the case where some participants were unable to fill out the questionnaire, the researcher used interviews to guide the participant in completing the survey.

3.6.1 Questionnaire

The first section includes general questions in the context of the study. These questions were aimed at finding out how often the participants purchase fuel and the most preferred brand they purchase from. The second section of the questionnaire required the participant to list the criteria that is of most

importance as well as of least importance to them during fuel purchase. A scale with three levels (low, medium, high) was introduced to guide the respondent in indicating how high or low a factor was considered to be, in influencing brand choice. The final section was aimed at collecting data on demographics of the participant. These include age, gender, profession and type of driver. This structure was considered ideal since respondents will be reluctant to give out personal information until they establish a rapport with the researcher.

This questionnaire was adapted from a questionnaire that was previously used when conducting a cross-national research on students' brand choice criteria by Thomas Spronk in August 2010. The original questionnaire was significantly modified by factoring in additional choice criteria to fit this particular research. Factors under utilitarian and hedonic criteria as stated earlier was introduced in replacement of the factors that were on the original questionnaire.

3.7 Data Collection Period

Data was collected between the months of January and February 2014.

3.8 Data Analysis

The data collected was analyzed quantitatively, using inferential analysis. This was done with the aid of graphs and tables in Microsoft Excel. The

questions presented in the questionnaire were analyzed individually using bar and pie charts. This graphically presented the frequencies and strengths of the factors against how low, medium, or high the influence was considered to be on brand choice.

CHAPTER 4- DATA REPRESENTATION AND ANALYSIS

4.0- Introduction

This chapter seeks to present and discuss findings from the quantitative data gathered. The findings obtained from the data answers the research question and objectives mentioned in the introductory chapter. These findings are presented in three main parts namely: demographic profile, context section and choice criteria section.

4.1 Analysis of Demographic Profile

Variable	Measure	Personal D. (%)	Commercial D. (%)
Gender	Male	57	100
	Female	43	
Age	18-25	53	20
	26-40	30	70
	41 above	17	10
Occupation	Student	40	100
	Business/professional	57	
	Taxi Driver	0	
	Unemployed	3	
Vehicle	Personal Saloon Car	60	100
	4WD	40	
	Taxi		

Table 4.1: Demographic profile of respondents

A total of 60 respondents participated in this study, with 30 representing personal drivers and 30 representing commercial drivers.

4.1.1 Demographics of Personal Drivers

A total of 17 respondents were male, representing 57%, while 13 respondents were female, representing 43% of the personal drivers sample. The above table shows the age distribution between 18-25 at 53%, 26-40 at 30% and 17% of the respondents at the age of 41 – Above. Also, of all the respondents, 40% were students, 57% were business/professionals while 3% were unemployed. Respondents who drive saloon cars and 4WDs were recorded at 60% and 40% respectively.

4.1.2 Demographics of Commercial Drivers

All the respondents in the commercial drivers sample were male, representing a 100%. A total of 20% of the respondents were between the age range of 18-25, 70% were between ages 26-40, and only 10% were 41 and above. The data also presents that 100% of the respondents were taxi drivers and drive taxis.

4.2 Analysis of Context Section

This section presents the findings related to the most preferred brands for both personal and commercial drivers, and how important it is to purchase from those particular brands. Pie charts are used to clearly present the statistics of data gathered.

4.2.1 Most Preferred Brand

These pie charts indicate the most preferred brand as stated by both commercial and personal drivers.

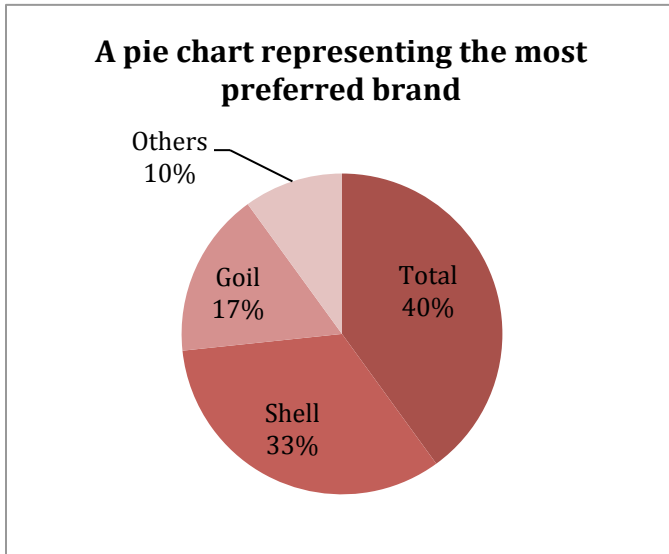


Fig 4.2 -Personal Drivers

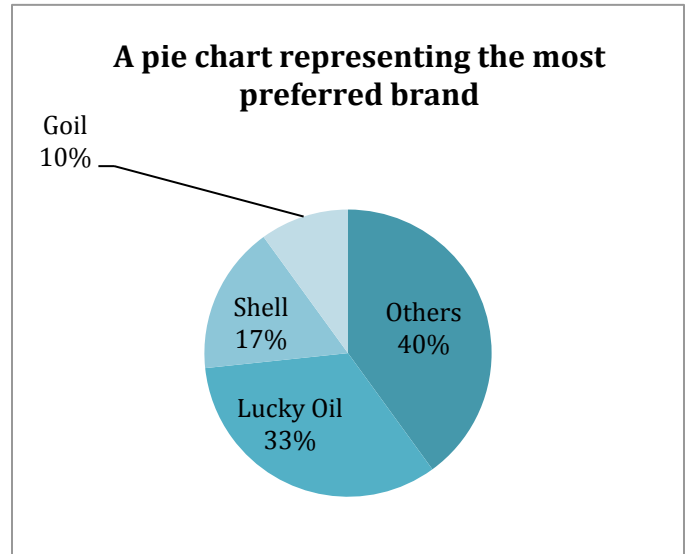


Fig 4.3- Commercial Drivers

4.2.2 Most Preferred Brand for Personal Drivers

The pie chart above clearly shows that respondents who were personal drivers prefer Shell, Total and Goil fuel brands. A percentage of 40 consider Total as their most preferred brand, 33% prefer Shell, while 17% of these respondents prefer Goil. Other brands such as Engen, Grace, Glory Oil and others stated by respondents amounted to a total of 10%.

4.2.3 Most Preferred Brand for Commercial Drivers

A total of 13 fuel retail brands were mentioned as the most preferred brand. Of all the commercial driver respondents, 33% prefer Lucky Oil, 17% prefer

Shell, 10% prefer Goil, and 40% prefer other fuel retailers such as Allied Oil, Glasark Oil, Engen, Grace, Crown, Total and others. Essentially, a huge chunk of commercial drivers in this study prefer Lucky Oil as the most preferred brand.

These findings are based on the fuel retail brands available in the three locations for this study- Berekuso, Kwabenya and Haatso.

4.3 Importance of Purchasing Fuel from the Preferred Brand.

Is it important to you that you buy from this brand?		
	Personal	Commercial
YES	43%	73%
NO	50%	7%
NO ANSWER	7%	20%

Table 4.4 - Statistics on how important it is to purchase from a particular fuel retail brand.

This study shows that 43% of personal drivers consider it important to purchase from their most preferred brand, 50% do not consider it important, while 7% did not provide an answer. Also, 73% of commercial driver respondents consider purchasing from their most preferred brand important, 7% do not consider it important and 20% did not answer. This means that most of the personal drivers in this study do not mind which particular fuel retailer they purchase from. Commercial drivers on the other hand will prefer to buy from their most preferred brand.

4.4 Specific Analysis of Choice Criteria Section

The data collected under this section seeks to determine which hedonic and utilitarian factors are considered most important and least important. Above each graph is a description of the factors as presented on the questionnaire.

4.4.1 Hedonic Factors

Brand Loyalty- "Your knowledge of the brand and loyalty to this brand"

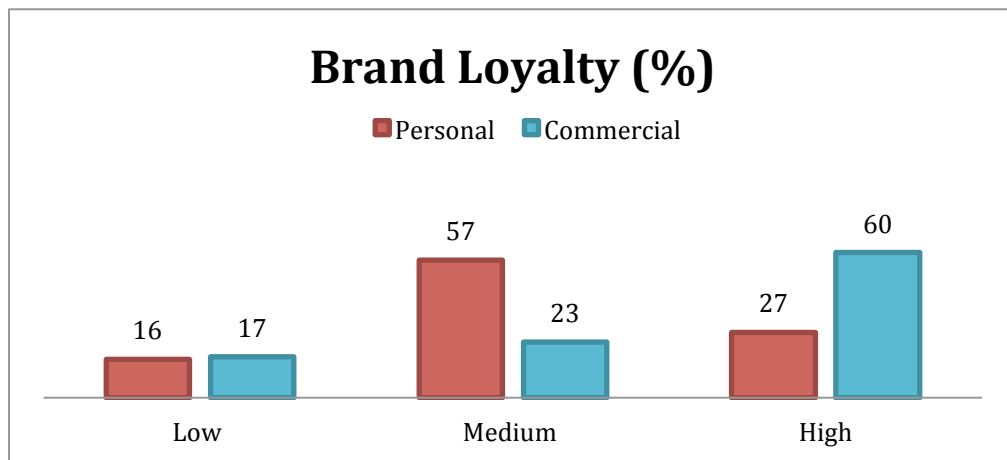


Fig 4.5 – Influence of brand loyalty

This graph presents the two groups of drivers and the percentages associated with high, medium or low options of brand loyalty, as an influential factor. A maximum of 16% of personal drivers consider brand loyalty of low influence, 57% consider it medium, and 27% consider it high. Analyzing that of commercial drivers, the graph shows that 17% consider the influence of brand loyalty on consumer choice as low, 23% consider it to be medium, and 60% consider it high.

Brand Image- "The history, heritage and experience of the brand as well as logos, characters, color, symbols, slogans or jingles."

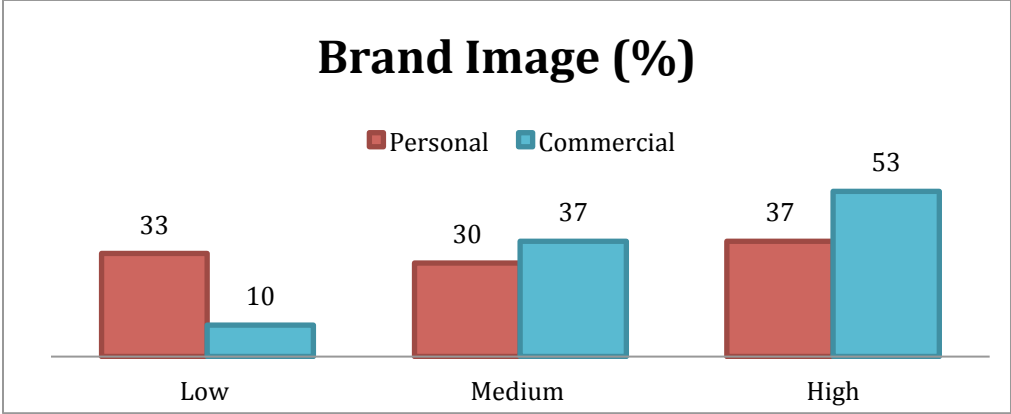


Fig 4.6 – Influence of brand image

This graph presents the percentages of respondent who consider brand image as influential. A total of 33% of personal drivers consider brand image as an influential factor to be low, 30% consider it medium and 37% consider it high. However only 10% of commercial drivers consider brand image as low, 37% consider it medium, and 53% consider it as a high influential factor.

Social Influence- “Recommendation of a friend, family member or colleague, or influence of choice from family/friends.”

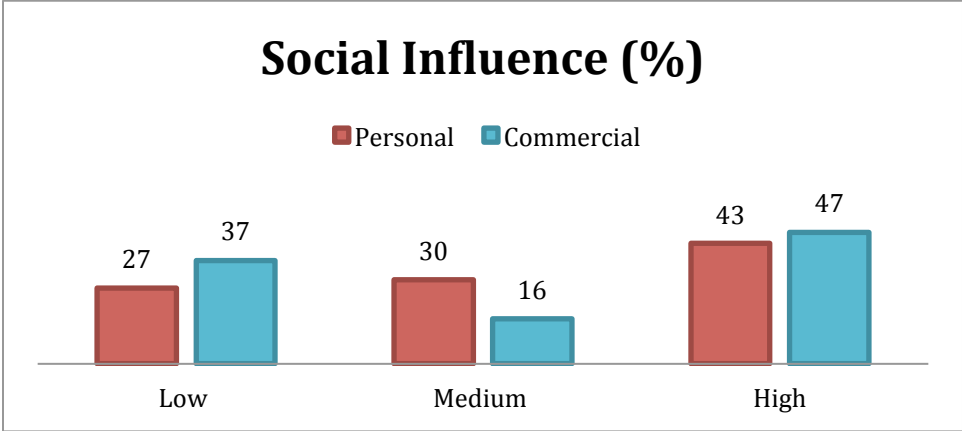


Fig 4.7 – Influence of social influence

The graph above presents the percentages of respondent who consider social influence as low, medium or high. Personal driver's representation of 27%, 30% and 43% consider the influence of social influence on consumer choice to be low, medium and high respectively. However, 37% of commercial drivers consider it low, 16% consider it medium and 47% consider it high.

Advertising- "Promotion the brand offers and advertisement."

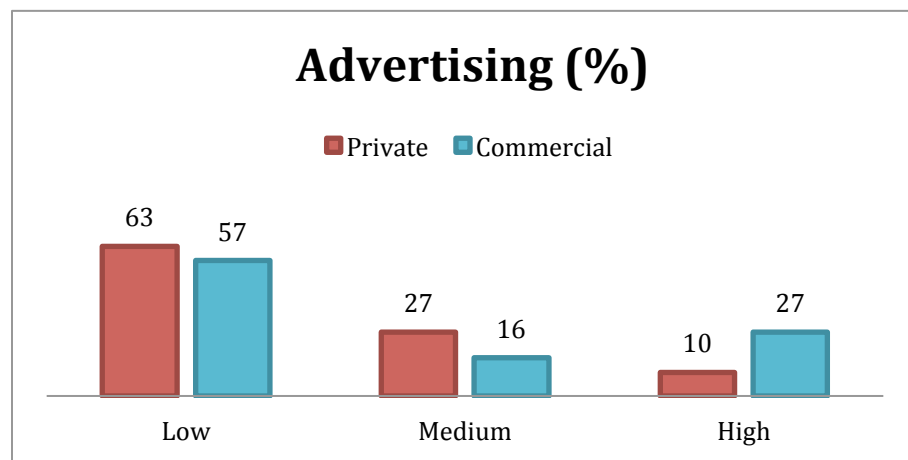


Fig 4.8 – Influence of Advertising

This graph presents a visual representation of how personal and commercial drivers consider advertising and its influence on consumer choice. A maximum of 63% of personal drivers consider the influence of advertising to be low, 27% consider it medium, and only 10% consider it high. 57% of commercial drivers consider advertising as low, 16% as medium and 27% as high.

4.4.2- Utilitarian Factors

Convenience – "The ease of locating the brand and its availability when needed."

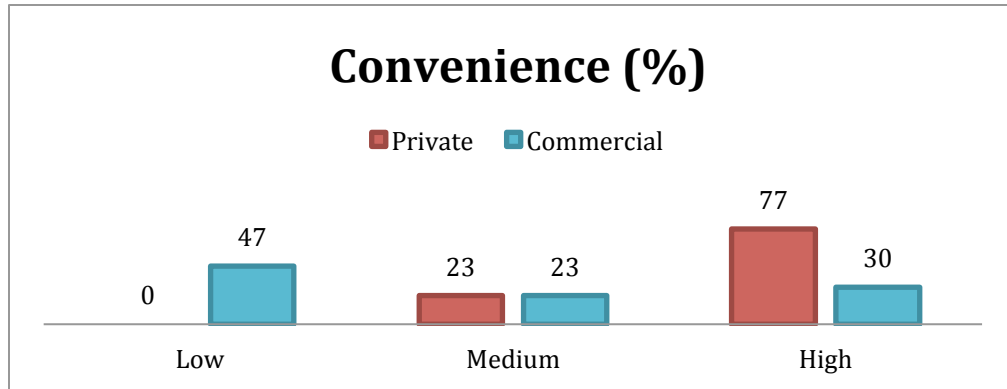


Fig 4.9 – Influence of convenience

The graph above illustrates how respondents perceive the convenience factor. None of the respondents in the personal drivers group consider convenience as of low influence, 23% consider it to be medium and 77% consider it high. Analyzing commercial drivers, 47% consider convenience to be low, 23% consider it medium, and 30% consider it high.

Price– “The value to cost of the product and its price competitiveness.”

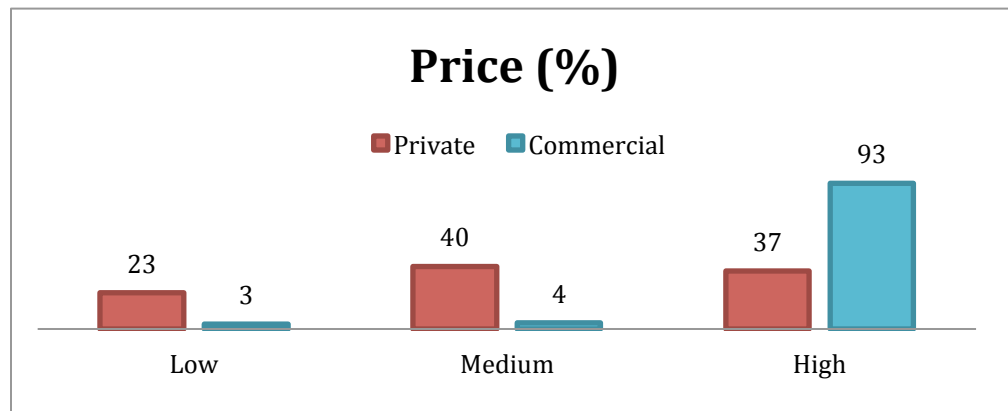


Fig 4.10 – Influence of price

This graph presents the percentages of respondents who consider price as low, medium or highly influential to consumer choice. Under the personal

drivers group, 23% consider price to be of low importance, 40% consider it medium, and 37% consider it high. However, only 3% and 4% of commercial drivers consider price to be of low and medium importance respectively. A majority of 93% consider price as a very influential factor in consumer choice.

Product- “The availability of different grades of fuel (regular, premium, super)”

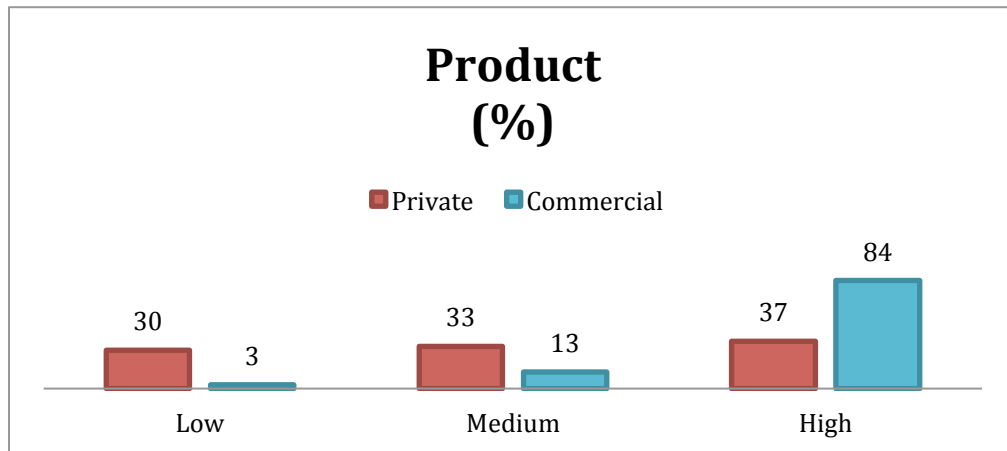


Fig 4.11 – Influence of product

This graph presents the two groups of drivers and the percentages associated with high, medium or low options of product, as an influential factor. A maximum of 30% of personal drivers consider product to be of low influence, 33% consider it medium, and 37% consider it high. Analyzing that of commercial drivers, the graph shows that 3% consider the influence of price on consumer choice as low, 13% consider it to be medium, and as much as 84% consider it high.

Value Added Services- “The added service the brand offers (e.g. cleaning windscreen/ checking oil)”

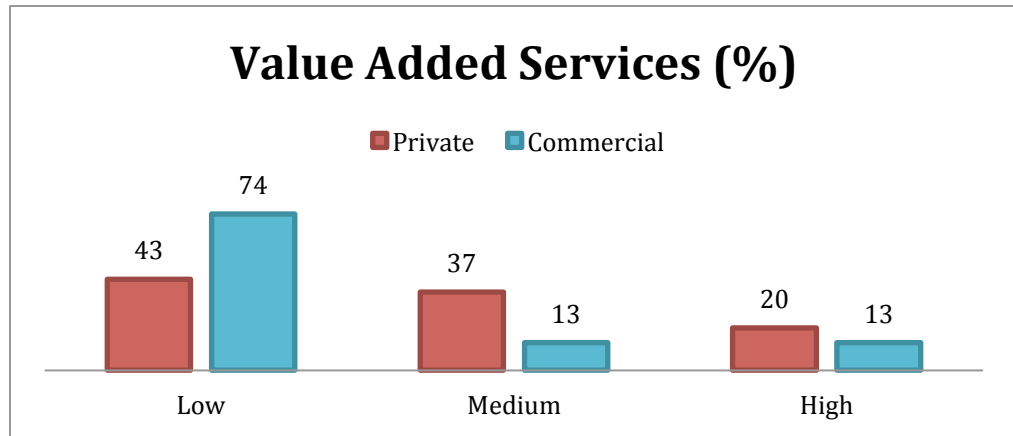


Fig 4.12 – Influence of value added services

This graph presents a visual representation of how personal and commercial drivers consider value added services and its influence on consumer choice. A maximum of 43% of personal drivers consider the influence of value added services to be low, 37% consider it medium, and 20% consider it high. For commercial drivers, 74% consider the availability of value added services as low, 13% as medium and 13% as high.

Side Attractions- “The availability of mini marts and ATMs”

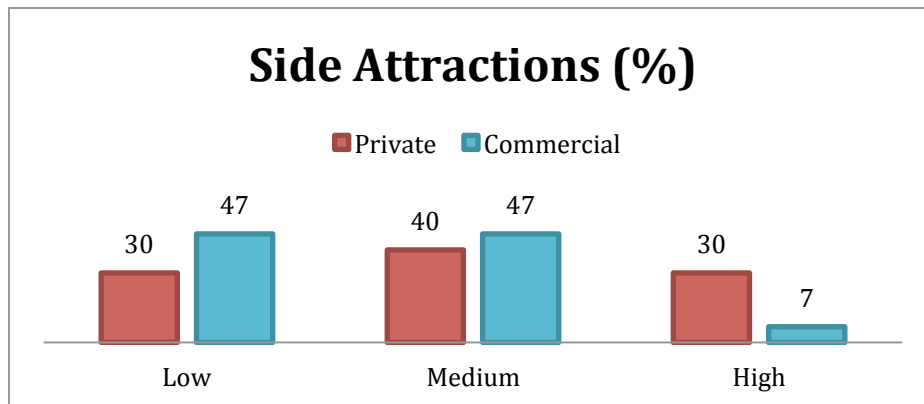


Fig 4.13 – Influence of side attractions

This graph presents the percentages of respondent who consider side attraction as low, medium or highly influential to consumer choice. Under the personal drivers group, 30% consider side attraction to be of low importance, 40% consider it medium, and 30% consider it high. A maximum of 47% of commercial drivers consider price to be of low importance, 47% consider it medium and only 7% consider it high.

4.5 General Analysis of Choice Criteria Section

This analysis focused on comparing all the factors according to the percentage of respondents that considered it highly influential.

4.5.1 Personal Drivers

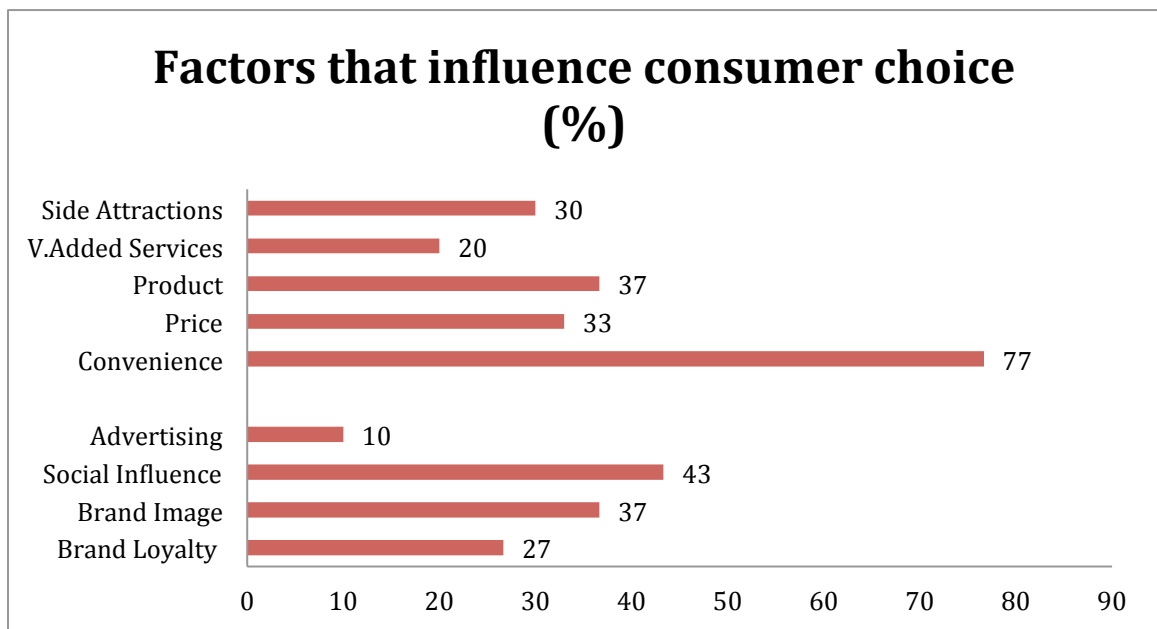


Fig 4.14 – Most influential factors of consumer choice – Personal drivers.

The chart above displays the percentage of respondents who consider the listed factors as highly influential to brand choice when purchasing fuel. As

presented above, 77% consider convenience as the most influential factor in fuel purchase, 37% consider product, 33% consider price, 30% consider side attractions and 20% consider value added services. All these fall under the utilitarian choice criteria. Under the hedonic choice criteria, 43% consider social influence as the most influential, 37% consider brand image, 27% consider brand loyalty, and as low as 10% consider advertisement as the most influential factor of brand choice. This data shows that most personal driver respondents regard convenience as the most influential factor of consumer choice of fuel retail brands. Convenience is a utilitarian factor and as stated earlier, utilitarian factors relate to objective, economic, rational, concrete and functional purchase dimensions (Batra & Ahtola, 1990). Therefore personal drivers are more concerned with rational and economic reasons when purchasing fuel.

4.5.2 Commercial Drivers

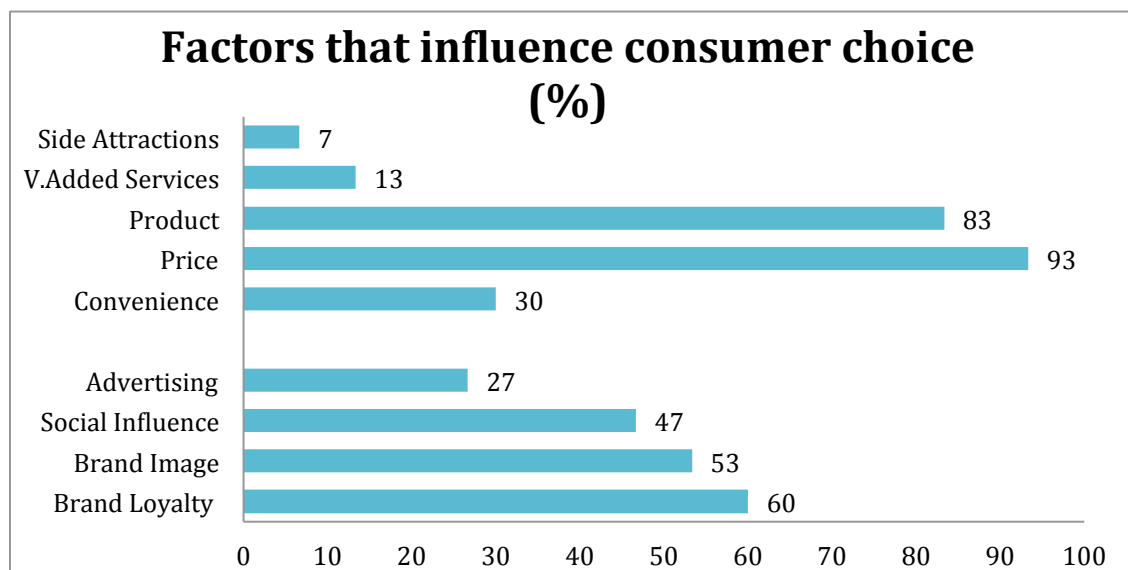


Fig 4.15 – Most influential factors of consumer choice – Commercial drivers.

The chart above displays the percentages of respondents who consider the listed factors as highly influential to brand choice when purchasing fuel. The data gathered shows that under utilitarian factors, 93% of respondents consider price as a high source of influence, 83% consider product, 30% consider convenience, 13% consider value added services, and just 7% consider side attractions as influential to brand choice. Hedonic factors such as brand loyalty, brand image, social influence, and advertising are considered influential by 60%, 53%, 47% and 27% respectively. This data shows that most commercial driver respondents regard price and product as the most influential factors of consumer choice of fuel brands. Price is a utilitarian factor and as stated according to Batra & Ahtola (1990), utilitarian factors relate to objective, economic, rational, concrete and functional purchase dimensions. This can be linked to Hasan (2008), and Karjaluoto (2005), which found price to be one of the most influential factors of brand choice of cars and mobile phones respectively. Also, Lichtenstein et al, (1993) in an article state that price, apart from brand name, is an important influence of consumer choice.

However, these findings are in contrast with Spronk's research, which stated perceived quality as the most influential factor of consumer choice of a particular brand.

4.6 Summary of Major Findings

These findings suggest that personal drivers prefer Total while commercial drivers prefer Lucky Oil as the most preferred brand. Regarding the most

influential factor affecting consumer choice of fuel retail brands, personal drivers consider convenience as the most influential factor of fuel purchase with 77% of respondents, while commercial drivers consider price as the most influential factor with 93% of respondents. This can be linked to Hasan (2008) where the study presented price as one of the most influential factors of brand choice of cars. Additionally, this study shows that personal drivers do not consider it very important to buy from a particular brand since 50% responded "No" to the question "Is it important to you that you purchase from this particular brand?" Regarding this same question, 70% of the commercial drivers responded "Yes." This shows that commercial drivers are concerned about the particular brand they purchase fuel from. *See Table 4.4.*

Furthermore the three most influential factors for personal drivers were convenience, social influence and product whereas the three main factors considered influential by commercial drivers were price, product and brand loyalty. These are in contrast with the similar researches examined in the literature review presented in chapter 2. According to Spronk (2010), perceived quality was considered the most influential factors of brand choice. In examining the factors that influence consumer choice of mobile phones, the four main factors were innovative services, multimedia, design and brand name (Karjaluoto et al, 2005). Also, Hasan (2008) concluded that price and brand name were the most influential factors of consumer choice.

CHAPTER 5- CONCLUSIONS & RECOMMENDATIONS

5.0 Conclusion

This research concludes that both hedonic and utilitarian factors influence consumer choice of fuel retail brands. However, personal drivers consider convenience as the most influential factor when making a choice of which fuel brand to buy from. Commercial drivers on the other hand consider price the most influential factor of consumer choice of fuel retail brands. This explains that both groups of drivers highly regard utilitarian factors when making a choice of fuel brands. Personal and commercial drivers are more influenced by economic, rational, concrete and functional purchase dimensions namely convenience and price. Additionally, Total was found out to be the most preferred brand for personal drivers while that of commercial drivers was Lucky Oil.

5.1 Recommendations

Fuel purchase is influenced by both hedonic and utilitarian factors but heavily by utilitarian factors. Fuel retailing can be improved to attract more customers if the points discussed below are taken into consideration.

5.1.1 Personal Drivers- Convenience

Personal drivers consider convenience the most influence factor of consumer choice of fuel retail brands. Gathering from this research, the ease of locating a fuel retailer whenever the need arises to purchase fuel is an important analysis to take into consideration. There are two suggestion based on this finding. Firstly, fuel retailers as well as new entrants into the fuel retailing

market should consider setting up at locations where consumers can easily access the station when they need to purchase fuel. Locating stations close to residential areas and business centers is likely to better serve the fuel needs of consumer. Secondly, fuel retailers should consider investing resources in setting up station branches in prime locations, where there is adequate traffic flow. These approaches are likely to attract more personal drivers, increase a brand's customer base, sales and market share, which can then lead to higher profits.

5.1.2 Commercial Drivers- Price

Commercial drivers consider price as the most influential factor, despite the marginal differences in price among the different brands. The lower the price, the more attractive a brand, hence influences choice of where commercial drivers purchase fuel. Based on this, fuel retailers should consider price as a key competitive factor in the fuel retailing market. One main suggestion is for brands to consider price deals. An example of a price deal is to give drivers a coupon, which allows them a discounted price after a specified number of frequent fuel purchases. Extensively, existing fuel retail brands and potential new entrants into the market can consider a low cost strategy. This is a pricing strategy where fuel retailers can offer a competitive low price as compared to other competitors, in order to stimulate demand and increase market share. This will appeal to price-sensitive consumers such as commercial drivers and lead to greater sales and profits.

In conclusion, existing fuel retailers as well as business people who have an interest in this industry should focus their resources on establishing several branches at strategic locations as well as striving to offer best prices, to conveniently and economically cater for the fuel needs of personal and commercial drivers respectively. Personal and commercial drivers seem to be highly influenced by rational, economic and logical reasons when making a choice in fuel purchase. Convenience and price, which are under the utilitarian choice criteria, should be seriously considered by fuel retail brands when making their business development decisions.

5.2 Limitations

This study serves as a guide to oil marketing companies (OMCs) since it is a seminal research on the influential factors of consumer choice of fuel retail brands, that can aid them boost their market performance. However, it was limited to only three locations - Berekuso, Kwabenya and Haatso due to the limited time and resources of this study. This does not make it generalizable to the entire drivers population in Accra or even in Ghana as a whole. Another limitation was the difficulty in finding respondents, especially commercial drivers who were willing to participate in the study.

5.3 Recommendations for Future Research.

Further studies should consider a wider demographic group with a methodology that has a fair representation of all the key locations in the Greater Accra Region, based on a representative sample of the population.

Also, further research should also consider introducing incentives to motivate participant's willingness to participate in the study.

Appendix

6.1 Questionnaire

FACTORS INFLUENCING CONSUMER CHOICE OF FUEL RETAIL BRANDS

This questionnaire is designed to identify the factors that influence consumer choice of fuel retail brands. This is an academic research paper and as such any information volunteered will be kept confidential and will be used solely for this research paper.

Part I-Context Questions

1. Which brand do you buy fuel from most often? (one answer)

.....

2. Is it important to you that you buy from this preferred brand?

YES / NO

3. What are the top 3 brand you buy from?

a)

b)

c)

Part II- Choice Criteria Questions

4. How much do the following criteria influence your choice of fuel brands?

	LOW	MEDIUM	HIGH
Brand Loyalty			
Your knowledge of the brand and loyalty to this brand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brand Image			
The history, heritage and experience of the brand as well as logos, characters, color, symbols, slogans or jingles??	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Influence			
Recommendation of a friend, family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

member or colleague or influence of choice from family/friends?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	--------------------------	--------------------------	--------------------------

Advertising

Promotion the brand offers and advertisement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------

Convenience

The ease of locating the brand and its availability when needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	--------------------------	--------------------------	--------------------------

Price

The value to cost of the product offered and its price competitiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------

Product

The availability of different grades of fuel (regular, premium, super)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------

Value Added Services

The added service the brand offers (cleaning windscreen/ checking oil)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------

Side Attractions

The availability of mini marts and ATM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------

5. Overall Choice criteria

	LOW	MEDIUM	HIGH
Level of emotional attachment towards your most preferred fuel retail brand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of economic, rational factors that influenced the choice of your most preferred fuel retail brand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please list the 2 criteria that are most important to you in fuel purchase:

7. Please list the 2 criteria that are least important to you in fuel purchase:

Part III -Demographic Profile

8. What is your gender?

- a. Male
- b. Female

- 9. What is your age?
 - a. 18-25
 - c. 26- 40
 - d. 41 and above

- 10. What is your occupation?
 - a. Student
 - b. Business/Professional
 - c. Unemployed
 - d. Other (Please Specify)

- 11. What kind of vehicle do you drive?
 - a. Taxi

 - b. Personal 4WD (Four-wheel drive)
 - c. Personal salon car

References

- Aaker, D. (1991). *Managing Brand Equity*. New York, The Free Press.
- American Marketing Association. (2011). *Branding: Defined*. Retrieved October 8, 2013, from Chicago American Marketing Association: <http://www.chicagoama.org/behind-branding-scenes>
- Amoah, M. O. (2011). *Assessing the Operations of the Bulk Oil Storage and Transportation Company Limited In Petroleum Products Delivery to Northern Ghana*. Master of Science Thesis, 19. Kwame Nkrumah University of Science and Technology.
- AOMCS. (2013). *Oil Marketing Companies*. Retrieved October 6, 2013, from Association of Oil Marketing Companies of Ghana: <http://aomcs.org/admission-of-members/members-fees-and-subscription/>
- Batra, R., & Ahtola, O. T. (1991). Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes. *Marketing letters*, Vol 2 No 2, pp. 160-163.
- Bell, H. A. (2011). A Contemporary Framework for Emotions in Consumer Decision-Making: Moving Beyond Traditional Models. *International Journal of Business and Social Science*, Vol 2 No 17, pp.12-16.
- Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2001). *Consumer Behavior* Vol 9. Harcourt College Publishers.
- Changa, H. H., & Liub, Y. M. (2009). The Impact of Brand Equity on Brand Preference and Purchase Intentions in the Service Industries. *Taylor & Francis Online*, Vol 29 No 12, pp.1687-1706.
- Dhar, R., & Wertenbroch, K. (1999). Consumer Choice Between Hedonic and Utilitarian Goods. *Journal of Marketing Research*, pp. 60-71.
- Edwards, W. (1954). The Theory of Decision Making. *Psychological Bulletin*, Vol 51 No 4, pp.380-417.
- Engel, J. F., Blackwell, R. A., & Miniard, P. A. (1995). *Consumer Behavior*. Canada: Harcourt Canada.
- Erasmus, A. C., Boshoff, E., & Rousseau, G. (2001). Consumer Decision-Making Models Within the Discipline of Consumer Science: A Critical Approach. *Journal of Family Ecology and Consumer Sciences*, Vol 29, pp.83-90.

- Gilat. (2012). *Gilat's Solution for Retail Petroleum & Convenience Store Networks*. Retrieved from Gilat Satellite Network: <http://www.gilat.com/>
- Hasan, T. (2008). Influence of Brand Name on Consumer Decision in Car Choice. *Masters: Thesis*. Umeå School of Business and Economics (USBE): Department of Business Administration.
- Holbrook, M. B., & Batra, R. (1987). Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising. *Journal of Consumer Research*, Vol 14 No.3, pp.404-410.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33, 14-26.
- Karjaluoto, H., Karvonen, J., Kesti, M., Koivumäki, T., Manninen, M., Pakola, J., et al. (2005). Factors Affecting Consumer Choice of Mobile Phones: Two Studies from Finland. *Journal of Euromarketing*, Vol 14 No 3, pp.63-79.
- Kirby, H. R., Hutton, B., McQuaid, R., Raeside, R., & Zhang, X. (2000). *Modelling the Effects of Transport Policy Levers on Fuel Efficiency and National Fuel Consumption*. Transportation Research, Transportation Research Part D.
- Khan, U., & Dhar, R. (2004). A Behavioral Decision Theoretic Perspective on Hedonic and Utilitarian Choice. In S. Ratneshwar, & D. G. Mick, *Inside Consumption: Frontiers of Research on Consumer Motives, Goals, and Desires* pp. 3-23.
- Kotler, P., & Armstrong, G. (2010). *Principles of Marketing*. U.S.A: Pearson.
- Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price Perceptions and Consumer Shopping Behavior. *Journal of Marketing Research*, Vol 30 No 2, pp. 234-245.
- Minnesota Department of Commerce. (2004). *Consumer Guide: Gasoline Octane Facts and Myths*. Minnesota Department of Commerce, Weights and Measures Division, Minnesota.
- National Petroleum Authority. (2013). *Oil Marketing Companies*. Retrieved October 7, 2013, from National Petroleum Authority: http://www.npa.gov.gh/npa_new/index.php

- Okada, E. M. (2005). Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods. *Journal of Marketing Research* , pp.45-53.
- Oteng-Adjei, J. (2010). *National Energy Policy*. Ministry of Energy: Republic of Ghana.
- Petro-Canada. (2013). *Octane & Other Gasoline Basics*. Retrieved December 19, 2013, from Petro-Canada: <http://retail.petro-canada.ca/en/independent/2069.aspx>
- Schoemaker, P. J. (1982). The Expected Utility: Its Variants, Purposes, Evidence and Limitations. *Journal of Economic Literature* , XX, pp. 529-563.
- Sondoh, S. L., Omar, M. W., Wahid, N. A., Ismail , I., & Harun, A. (2007). The Effect of Brand Image on Overall Satisfaction and Loyalty Intention in the Context of Color Cosmetics. *Asian Academy of Management Journal* , Vol 12 No 1, pp. 83-107.
- Spronk, T. J. (2010). Consumer Brand Choice Criteria: A Cross-National Study. *MSc Thesis*. Rotterdam.
- Tema Oil Refinery. (2011). *TOR*. Retrieved October 7, 2013, from Energy World Africa: <http://www.energyworldafrica.com/pdf/Tema%20Oil%20Refinery.pdf>
- Variawa, E. (2010). Buying Behaviour and Decision-Making Criteria of Base of the Pyramid Consumers. Gordon Institute of Business Science, University of Pretoria.
- Weber, M. (1987). Decision Making with Incomplete Information . *European Journal of Operational Rcscarch* , Vol 28, pp. 44-57.
- Williams, T. G. (2002). Social Class Influences on Purchase Evaluation Criteria. *Journal of Consumer Marketing* , Vol 19 No. 3, pp.249-276.
- Yakup, D., Mücahit, C., & Reyhan, O. (2011). The Impact of Cultural Factors on the Consumer Buying Behaviors Examined Through An Impirical Study. *International Journal of Business and Social Science* , Vol 2 No 5, pp. 109-113.