THE EFFECT OF PRICE REGULATION ON COMPETITION AMONG OIL FIRMS IN KENYA

BY

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DECLARATION

This research project is my original work and has not been submitted for examination in any other University.

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This research project has been submitted for examination with my approval as a university supervisor.

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DEDICATION

This work is dedicated to my family.
ABSTRACT

Pricing is one of the strategies that firms use to compete in the market. When pricing as a strategy is controlled through regulation, it then ceased to be a competitive factor. In the absence of price strategy therefore, do firms still compete and on what grounds especially when the product is homogenous? This was the crux of this paper considering the price regulation in the oil industry in Kenya. The objective of this study was to determine the effect of price regulation on competition among oil firms in Kenya.

This study was a descriptive survey. The target population of the study was all the ten oil marketing firms. Primary data was collected using a structured questionnaires administered to the Managing Directors using drop-and-pick later method. The analysis was done using descriptive statistics such as mean scores and percentages. Results were presented in table and charts.

The study found that service quality was the most adopted strategy by most of the firms followed by focus strategy and lastly the pricing strategy. The study also found that the intensity of competition was also low after the introduction of price regulations. The study concludes that the price of fuel in the price regulation era was marginally lower than the period before the price regulations. The study also concludes that price ceilings have reduced the level of competition in the oil industry. The study recommends that there is need for the oil marketing firms to be allowed to import oil on their own from the suppliers they are comfortable with. This will give them the leeway to negotiate better prices hence reduce their costs and enable them to price the fuel better in the market.
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LIST OF ACRONYMS

ERC  Energy Regulatory Commission
EU   European Union
KPRL Kenya Petroleum Refinery Limited
LPG  Liquefied Petroleum Gas
NCE  New Chemical Entities
SPSS Statistical Package for Social Sciences
USA  United States of America
CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Looking at a global perspective, upper limits on product prices can be observed for a number of goods including housing, food, drugs or utilities (Hemmasi and Kemnitz, 2002). While such regulations are often justified by the desire to prevent customers from paying 'too' high prices, it is not clear what options firms dealing in homogenous product with little incentive to differentiate, such as oil firms, compete with each other.

Energy market reform has resulted in governments introducing competition, privatisation and deregulation of parts of the energy industry. Utility companies have now been separated into discrete companies responsible for generation, transmission, distribution and retailing (Energy Retailing Association of Australia, 2010). The energy sector in Kenya has undergone similar reforms. Until recently, the petroleum firms set their own prices but when the public complained about exorbitant prices, the Government through the Energy Regulatory Authority stepped in to set maximum retail pump prices. Thus price regulations were introduced. It is important at this point to discuss what price regulation is and how such measures might affect competition.

1.1.1 Price Regulation and Competition

Price controls are governmental restrictions on the prices that can be charged for goods and services in a market. The intent behind implementing such controls can stem from the desire to maintain affordability of staple foods and goods, to prevent price gouging during shortages, and to slow inflation, or, alternatively, to insure a minimum income for providers of certain goods. There are two primary forms of price control, a price ceiling,
the maximum price that can be charged, and a price floor, the minimum price that can be charged.

The Economic Glossary (2012) defines price regulation as Government oversight or direct government control over the price charged in a market, especially by a firm with market control. Price cap regulation adjusts the operator’s prices according to the price cap index that reflects the overall rate of inflation in the economy, the ability of the operator to gain efficiencies relative to the average firm in the economy, and the inflation in the operator’s input prices relative to the average firm in the economy (Wikipedia, 2012).

Majumdar (2003) argued that whether externally mandated by regulatory authorities or internally mandated as a consequence of top management vision, price caps are mechanisms that provide firms with incentives to be competitive. They help firms set targets that are translated into action plans throughout the organisation. Every activity is assessed and taken into account in meeting profit goals. They help firms work harder and smarter. They help firms alter the contours of industry competition. They help consumers toward getting better and cheaper products. As a result, human welfare is maximized.

A study by de Bijl and Peitz (2001) found that, in the short run, asymmetric access price regulation is an effective instrument to make the entrant and consumers better off. Thus price regulation would stir competition in the short run. Biglaiser and Riordan (2000) argued that price-cap regulation leads to more efficient capital replacement decisions compared to rate-of-return regulation and showed that finite price cap horizons distort capital replacement.
1.1.2 Oil Industry in Kenya

The oil industry that is the concern of this paper is the petroleum sector in Kenya. There are three main players in the petroleum sector in Kenya. First are the various petroleum companies involved in the distribution of petroleum products. There are about 7 main companies and a growing number of independent oil distribution companies that have sprung up since the liberalisation of the sector. Secondly is the Kenya Petroleum Refinery Limited (KPRL), which operates the only oil refinery in the country. Third is the Kenya Pipeline Company Limited, which operates the pipeline that runs from Mombasa to Nairobi, Kisumu and Eldoret. There are plans to extend the pipeline to Uganda (PwC, 2012).

The petroleum sector was deregulated in late 1994 with the deregulation of retail prices of petroleum products and of the importation of crude oil and refined products. However, the sub-sector could not be fully deregulated mainly because of the market’s dependence on KPRL for liquefied petroleum gas (LPG), and the absence of a viable infrastructure for its importation. Therefore, the Government requires oil companies to import and process crude oil through the refinery to satisfy the requirements for LPG. Recently, the Government has introduced an open tender system for the importation of crude to the refinery. Under this system a tender for importation of crude is awarded to an individual oil company, which then imports crude for the whole industry and supplies to the other oil companies (PwC, 2012).
1.2 Research Problem

From Porter’s (1983) competitive model, pricing is one of the strategies that firms use to compete in the market. When pricing as a strategy is controlled through regulation, it then ceased to be a competitive factor. In the absence of price strategy therefore, do firms still compete and on what grounds especially when the product is homogenous? This is the crux of this paper considering the price regulation in the oil industry in Kenya.

The Government of Kenya introduced price controls in the energy sector in 2011. Through this policy, the price of fuel is set by the Energy Regulatory Commission (ERC). The ERC sets maximum prices (price ceiling) for diesel and petrol every 15th of every month to be observed by the petrol stations for the entire month. This has seen fuel retailing at similar prices across all petrol stations regardless of the petrol company. Consumers therefore pay the same price for fuel in any petrol station. The question which needs to be answered from a competitive point of view is how do firms compete in such a price controlled market?

Hemmasi and Kemnitz (2002) investigated the quality implications of an upper limit on product prices in a vertically differentiated duopoly and found that a price ceiling diminishes the incentives for strategic product differentiation, thereby improving average quality in the market. This means that in the absence of pricing as a strategy, product differentiation does not also take place. This could be the case in the oil industry in Kenya given that the firms sell the same product. Studies on competition however abound and include Oluoch (2011) on motor vehicle importing firms, Tito (2011) on Safaricom’s responses to competition and Mutiga (2010) on commercial banks in Kenya, among
many other studies. Studies on the oil firms include Wahito (2011) on Porter’s value chain model and competitive advantage in the oil industry in Kenya, Ndaisi (2011) on relationship between credit policy and liquidity for oil marketing firms in Kenya, and Barua (2010) on the challenges facing supply chain management in the oil marketing companies in Kenya. Namusonge (1983) did a study on the attitude of manufacturers towards price controls and their administration in Kenya. So far, this is the only study locally available on price controls in Kenya. This is due to the fact that price controls were banned and were just re-introduced in 2011. There is therefore a gap in literature as concerns how firms compete in a price regulated regime in Kenya. The present study therefore sought to establish how oil firms compete in a price regulated regime in Kenya. The study thus posed the question: how has price regulation in the oil industry in Kenya affected competition among the firms in the industry?

1.3 Research Objective

The objective of this study was to determine the effect of price regulation on competition among oil firms in Kenya.

1.4 Value of the Study

This study is important to the theory and practice of strategic management in organisations. The study adds on to the growing concept of price regulation and competition in organisations by focusing on a developing country in Africa – Kenya. The results will show how firms in the oil industry compete in a price regulated regime.
The study is also important to the practice of strategic management in organisations since it will shed more light on how companies can still compete in a regime where prices are regulated by the Government or its agency.

The study will also be important to future researchers and scholars interested in undertaking research on price regulation as it will be a basis upon which other studies in Kenya will be undertaken.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review. Section 2.2 presents a theoretical review. Section 2.3 presents an empirical review of the effect of price regulation on competition.

2.2 Theoretical Review

Three theoretical concepts are discussed here. First, the resource-based view theory is discussed in section 2.2.1. This is followed by the Porter’s Five Forces model in section 2.2.2 and then the Porter’s generic competitive theory in section 2.2.3. Finally, the Bertrand’s model of price competition is discussed in section 2.2.4.

2.2.1 Resource Based View Theory

The pursuit of competitive advantage is indeed an idea that is at the heart of much of the strategic management literature (Porter and Kramer, 2006; Liao and Hu, 2007). Understanding sources of sustained competitive advantage has become a major area of study in strategic management (Porter, 1985; Barney, 1991; Flint and Van Fleet, 2005).

The resource-based view stipulates that in strategic management the fundamental sources and drivers to firms’ competitive advantage and superior performance are mainly associated with the attributes of their resources and capabilities which are valuable and costly-to-copy (Peteraf and Bergen, 2003). Building on the assumptions that strategic resources are heterogeneously distributed across firms and that these differences are stable overtime,

Barney (1991) examines the link between firm resources and sustained competitive advantage. Four empirical indicators of the potential of firm resources to generate
sustained competitive advantage can be value, rareness, inimitability, and non-substitutability. In Barney (1991), firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness. In this article, a firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. Furthermore, a firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy (Barney, 1991).

Barney (1991) further argued that to have the potential to generate competitive advantage, a firm resource must have four attributes: (a) it must be valuable, in the sense that it exploits opportunities and/or neutralizes threats in a firm’s environment; (b) it must be rare among a firm’s current and potential competition; (c) it must be imperfectly imitable; and (d) there cannot be strategically equivalent substitutes for this resource.

2.2.2 Porter’s Five Forces Theory

The five competitive forces determine industry profitability and attractiveness. These forces are important in shaping the prices that firms can charge, the costs they have to bear, and the required investments to compete in the industry. These forces are threat of substitutes, threat of new entrants, bargaining power of suppliers, bargaining power of buyers, and the degree of rivalry (Porter, 1998).
New entrants to an industry can raise the level of competition, thereby reducing its attractiveness. The threat of new entrants largely depends on the barriers to entry. High entry barriers exist in some industries (such as shipbuilding) whereas other industries are very easy to enter (for instance, estate agency, and restaurants). Key barriers to entry include: economies of scale, capital / investment requirements, customer switching costs, access to industry distribution channels, and the likelihood of retaliation from existing industry players (Porter, 2008).

The presence of substitute products can lower industry attractiveness and profitability because they limit price levels. The threat of substitute products depends on: buyers' willingness to substitute, the relative price and performance of substitutes, and the costs of switching to substitutes. Buyers are the people / organisations who create demand in an industry. The bargaining power of buyers is greater when: there are few dominant buyers and many sellers in the industry, products are standardized, buyers threaten to integrate backward into the industry, suppliers do not threaten to integrate forward into the buyer's industry, and the industry is not a key supplying group for buyers (Porter, 2008).

Suppliers are the businesses that supply materials & other products into the industry. The cost of items bought from suppliers (such as raw materials, components) can have a significant impact on a company's profitability. If suppliers have high bargaining power over a company, then in theory the company's industry is less attractive. The bargaining power of suppliers will be high when: there are many buyers and few dominant suppliers, there are undifferentiated, highly valued products, suppliers threaten to integrate forward into the industry (such as brand manufacturers threatening to set up their own retail
outlets), buyers do not threaten to integrate backwards into supply, and the industry is not a key customer group to the suppliers (Porter, 1998).

The intensity of rivalry between competitors in an industry will depend on the structure of competition - for example, rivalry is more intense where there are many small or equally sized competitors; rivalry is less when an industry has a clear market leader. It also depends on the structure of industry costs - for example, industries with high fixed costs encourage competitors to fill unused capacity by price cutting. The degree of rivalry also depends on the degree of differentiation - industries where products are commodities (such as steel, coal) have greater rivalry; industries where competitors can differentiate their products have less rivalry. It also depends on the switching costs - rivalry is reduced where buyers have high switching costs – for instance, there is a significant cost associated with the decision to buy a product from an alternative supplier. Further, it depends on the strategic objectives - when competitors are pursuing aggressive growth strategies, rivalry is more intense. Where competitors are "milking" profits in a mature industry, the degree of rivalry is less. Lastly, it depends on the exit barriers - when barriers to leaving an industry are high (such as the cost of closing down factories) - then competitors tend to exhibit greater rivalry (Porter, 2008).

2.2.3 Generic Competitive Strategies

A firm positions itself by leveraging its strengths. Porter (1996) has argued that a firm's strengths ultimately fall into one of two headings: cost advantage and differentiation. By applying these strengths in either a broad or narrow scope, three generic strategies result: cost leadership, differentiation, and focus. These strategies are applied at the business
unit level. They are called generic strategies because they are not firm or industry dependent.

The cost leadership strategy focuses on gaining competitive advantage by having the lowest cost in the industry (Davidson, 2001). In order to achieve a low-cost advantage, an organization must have a low-cost leadership strategy, low-cost manufacturing, and a workforce committed to the low-cost strategy (Malburg, 2000). When using differentiation strategy, a company focuses its efforts on providing a unique product or service (Hlavacka et al., 2001). Since, the product or service is unique, this strategy provides high customer loyalty (Porter, 1985; Hlavacka et al., 2001). In the focus strategy, a firm targets a specific segment of the market (Hlavacka et al., 2001; Hyatt, 2001). The firm can choose to focus on a select customer group, product range, geographical area, or service line (Hyatt, 2001).

2.2.4 Bertrand’s Model of Price Competition

Bertrand competition is a model of competition used in economics, named after Joseph Louis François Bertrand (1822-1900). It describes interactions among firms (sellers) that set prices and their customers (buyers) that choose quantities at that price. The model rests on the following assumptions: there are at least two firms producing homogeneous (undifferentiated) products; firms do not cooperate; firms compete by setting prices simultaneously; consumers buy everything from a firm with a lower price. If all firms charge the same price, consumers randomly select among them (Wikipedia, 2012).

The classic Bertrand model assumes firms compete purely on price, ignoring non-price competition. Firms can differentiate their products and charge a higher price. The
Bertrand model can be extended to include product or location differentiation but then the main result - that price is driven down to marginal cost - no longer holds. The model ignores capacity constraints. If a single firm does not have the capacity to supply the whole market then the "price equals marginal cost" result may not hold (Wikipedia, 2012).

The classical model only focuses on the pure strategy Nash equilibrium. There are mixed-strategy Nash equilibrium with positive economic profits (see Kaplan & Wettstein, 2000, and Baye & Morgan, 1999). The classical model ignores search cost of consumers. If the consumer does not know the price of the product before visiting a firm and each visit is costly (however small), then a Nash equilibrium price will not arise. This creates the possibility that firms will randomly price at some point between marginal cost and the monopoly price.

2.3 Effect of Price Regulation on Competition

Carranza et al., (2009) studied the effect of price controls on competition in gasoline retail markets. They showed that as a result of the price regulation policy, competition was higher and prices were lower in the price regulated market compared with the unregulated market. The study was based on a sample of stations before and after the implementation of the policy. The results therefore highlighted that price regulation affects market structure and can therefore have unintended consequences on productivity.

A study by Earle et al., (2007) explored the issue of price caps under uncertainty. The purpose of the study was to focus on the theoretical properties of price caps that underlie the justification of the use of price caps in a variety of contexts. They showed that the
predictions of the deterministic theory change drastically if demand is uncertain. In particular, though in the deterministic case the introduction or lowering of a price cap (above marginal cost) results in increased production, increased total welfare, decreased prices, and increased consumer welfare, the study showed that all of the above comparative statics predictions fail for generic uncertain demand functions. For example, for price caps sufficiently close to marginal cost, a decrease in the price cap always leads to a decrease in production and total welfare under certain mild conditions. Under stronger regularity assumptions, all of the monotone comparative statics predictions from the deterministic case also do not hold for a generic uncertain demand if the attention is restricted to price caps in an arbitrary fixed interval (as long as the price caps are binding for some values in that interval).

Dalen et al., (2006) studied the effect of price regulation on generic competition in the pharmaceutical market. Using monthly data over the period 1998-2004 for the six drugs (chemical entities) included in the index price system, the study estimated a structural model enabling the study to examine the impact of the reform on both demand and market power. The results suggested that the index price helped to increase the market shares of generic drugs and succeeded in triggering price competition.

Another study in the pharmaceutical industry is that by Ekelund and Persson (2003) on pharmaceutical pricing in a regulated market. The study compared how new pharmaceutical are priced in the price regulated Swedish market with how they are priced in the U.S. market, as studied by Lu and Comanor (1998). The study collected a data set consisting of all new chemical entities (NCEs) launched in Sweden between 1987 and 1997, and tested the same models as Lu and Comanor. In line with their results, the study
found that introductory prices depended on the degree of therapeutic innovation. Contrary to the results from the U.S. market, Swedish real prices for NCEs fell substantially over time for all classes of therapeutic innovation. Also contrary to the findings of Lu and Comanor, the study found no effect of the presence of branded substitutes on either introduction prices or price dynamics. The results indicated that the price regulation discouraged price competition between brand name drugs.

Price caps have also been studied in the telecommunications industry. For instance, Kwoka (1993) studied implementation of price caps in telecommunications in the USA. The study focused on the key implementation issues raised in the Federal Communications Commission's formulation of price cap plans for AT&T and the local telephone exchange carriers. Specifically, it discussed company cost changes over time and the formulas employed to track costs; the multiplicity of prices and the structure of regulations designed to cap them; and the inevitability of errors in the long run and the disincentives likely to result from efforts to correct such errors. The study concluded with an evaluation of the performance of price cap plans, noting how the resolution of these various issues had affected plan success.

Dufwenberg et al. (2007) studied the relationship between price floors and competition. Using an experiment and building on two theories, the Bertrand model of price competition — and the Luce's model of individual choice behaviour, the study had interesting results. Given that it is generally considered that raising price floors in Bertrand models protects competitors from making low profits, and should thus be anti-competitive, the experiment showed that the opposite can be true: a higher price floor may foster competition and may lead to lower prices under conditions of duopoly.
Knittel and Stango (2003) tested whether a nonbinding price ceiling may serve as a focal point for tacit collusion, using data from the credit card market during the 1980's. The study used an empirical model which could distinguish instances when firms match a binding ceiling from instances when firms tacitly collude at a nonbinding ceiling. The results suggested that tacit collusion at nonbinding state-level ceilings was prevalent during the early 1980's, but that national integration of the market reduced the sustainability of tacit collusion by the end of the decade. The results thus highlighted a perverse effect of price regulation.

Armstrong and Vickers (1993) analyzed some effects of price discrimination policy in a model where a dominant incumbent firm faces an endogenous degree of competition in one of its two markets. The study found that banning price discrimination tends to encourage more entry, which is desirable if the entrant is as efficient as the incumbent but has ambiguous welfare effects more generally. Prices in both markets might fall. The study also examined price discrimination policy under different forms of price. It was found that if the incumbent's average price level is regulated, then allowing price discrimination can lead to pricing below marginal cost, with possible anti-competitive consequences.

Dobbs (2004) examined the inter-temporal price cap regulation of a firm that has market power. The study argued that under uncertainty the unconstrained firm 'waits longer' before investing or adding to capacity and as a corollary, enjoys higher prices over time than would be observed in an equivalent competitive industry. It also argued that in the certainty case, the imposition of an inter-temporal price cap can be used to realize the competitive market solution; by contrast, under uncertainty, it cannot. The study further
argues that even if the price cap is optimally chosen, under uncertainty, the monopoly firm will generally (a) under-invest and (b) impose quantity rationing on its customers.

Bhattacharya et al., (2004) studied price regulation in secondary insurance markets. Using data from a unique random sample of HIV+ patients, the study estimated welfare losses from transactions prevented by binding price floors in the viatical settlements market (an important segment of the secondary life insurance market). The study found that price floors bound on HIV patients with greater than 4 years of life expectancy. Furthermore HIV patients from states with price floors were significantly less likely to viaticate than similarly healthy HIV patients from other states. If price floors were adopted nationwide, they would rule out transactions worth $119 million per year. The study found that the magnitude of welfare loss from these blocked transactions would be highest for consumers who are relatively poor, have weak bequest motives, and have a high rate of time preference.

Iozzi et al., (2006) did a study on pricing discretion and price regulation in competitive industries. They studied two alternative regulatory regimes to limit it: the first regime (Absolute) placed a fixed upper limit to the prices charged in captive markets, while the other regime (Relative) constrained the captive prices relatively to the competitive ones. Under the Relative regime, captive prices were only weakly lower and competitive prices were always higher than under the Absolute regime. However, the number of competitors and/or their output was higher under the Relative regime. While the effects on aggregate welfare were ambiguous, there was some evidence that the Relative regime was more likely to increase consumers’ surplus and social welfare the more efficient were the competitors.
Danzon and Epstein (2008) examined the effect of price regulation and competition on launch timing and pricing of new drugs. The data covered launch experience in 15 countries for drugs in 12 therapeutic classes that experienced significant innovation over the decade 1992-2003. The study used prices of established products as a measure of the direct effect of a country's own regulatory system, and found that launch timing and prices of innovative drugs were influenced by prices of established products. Thus, if price regulation reduced drug prices, it contributed to launch delay in the home country. New drug launch hazards and launch prices in low-price countries were also affected by referencing by other, high-price countries, especially within the EU, as expected if manufacturers delayed launch in low-price markets to avoid undermining higher prices in other countries. Thus, referencing policies adopted in high-price countries can impose welfare loss on low-price countries. Prices of new drugs were influenced mainly by prices of other drugs within the same subclass; however, dynamic competition from new subclasses undermined new drug launch in older subclasses. Association with a local firm accelerated launch only in certain regulated markets.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

This was a descriptive survey. According to Mugenda and Mugenda (2003), descriptive survey is an attempt to collect data from members of a population in order to determine the status of that population with respect to one or more variables. Given that the study sought to establish how oil firms compete in a price regulated regime, a descriptive design was deemed the most appropriate for the study.

3.2 Population

The target population for this study was all the oil marketing firms in Kenya. There were currently ten oil marketing firms in Kenya by August 2012 (PwC, 2012). All the 10 firms were targeted.

3.3 Data Collection

Primary data was collected in this study. These were collected using a structured questionnaire (appendix 1). They respondents were the managing directors of the selected oil firms in Kenya. One questionnaire was administered to each of the firms using drop-and-pick later method. The data was collected for a period of two weeks after which the filled in questionnaires was collected for analysis. A letter authorizing data collection from the University of Nairobi was sought and attached on each of the questionnaires. A letter of introduction from the student was also sent along with each of the questionnaires.
3.4 Data Analysis

The data collected through the questionnaires was checked for completion, coded and analysed with the help of the Statistical Package for Social Sciences (SPSS). The analysis was done in terms of descriptive statistics such as mean scores and percentages. The results were presented using tables, graphs and charts for ease of understanding. This also allowed for the interpretation of the findings generated and a recommendation from the findings.
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This chapter presents the results of data analysis performed on the questionnaires collected from the respondents. The chapter is organized as follows: section 4.2 presents the characteristics of the sample. Section 4.3 presents the results on competition in the oil industry. Lastly, section 4.4 presents a discussion of findings.

4.2 Sample Characteristics

Table 1 shows a summary of results on the sample characteristics. Presented here are the results for response rate, number of years the respondents had been working in their firms, number of employees, and number of petrol stations.

| Table 1: Summary Results on Sample Characteristics |
|---------------------------------------------------|-----------|-----------|
| **Response rate**                                  | Frequency | Percent   |
| Response                                           | 7         | 70        |
| Non-response                                       | 3         | 30        |
| **Experience in the company**                      |           |           |
| 2 – 4 years                                        | 4         | 57        |
| 5 – 7 years                                        | 3         | 43        |
| **Number of employees**                            |           |           |
| 50 – 200                                           | 4         | 57        |
| Over 200                                           | 3         | 43        |
| **Number of stations**                             |           |           |
| Less than 20                                       | 3         | 43        |
| Over 200                                           | 4         | 57        |

*Source: Author (2012)*
Of the ten questionnaires administered, seven were collected and used in the analysis. This gives a response rate of 70%. This is a high response rate for a survey of this nature and therefore these results can be generalized to the entire industry. The response rate is also presented in Figure 1.

**Figure 1: Response Rate**

![Response Rate Pie Chart]

The respondents were asked to state how long they had been working in the organisations. The results from Table 1 show that 57% of the respondents had worked for a period between 2 – 4 years while 43% had worked for a period of 5 – 7 years. Therefore, most of the respondents had stayed for a longer period in their companies hence they were able to effectively and reliably respond to the questionnaire. These results are also shown in Figure 2.
The respondents were asked to state how many employees they had. The results are presented in table 1. The results show that 57% of the companies had 50 – 200 employees while 43% had over 400 employees. These results mean that the oil firms ranged from middle to large firms. These results are also shown in Figure 3.
The respondents were asked to state how many stations the companies had in Kenya. This was intended to find out the size and subsequent market share of the oil firms. The results are shown in table 1. As the results show, 43% of the firms had less than 20 stations while 57% of the firms had over 200 stations. These results indicate that most of the oil marketing firms had more than 200 petrol stations in Kenya. These results are also presented in Figure 4.

**Figure 4: Number of Petrol Stations**

4.3 **Competition in the Oil Industry**

The respondents were asked to comment about the level of competition before the introduction of price caps by the government through the Energy Regulatory Commission. The results are shown in table 2.

<table>
<thead>
<tr>
<th>Level of Competition</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intense</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Very intense</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Author (2012)
As shown, 57% of the respondents cited that the competition was intense while 43% said that the competition was very intense. Competition before the price regulation can therefore be characterized as intense.

The respondents were asked to comment about the level of competition after the introduction of price caps by the government through the Energy Regulatory Commission. The results are shown in table 3.

Table 3: Level of Competition before Price Regulations

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Moderate</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The results show that competition was characterized as low by 43% of the respondents while it was considered moderate by 57% of the respondents. These results reveal that competition after price regulations in the oil industry was moderate to low.

The respondents were asked to state competitive strategies their firms had adopted after the introduction of price caps by the government through the Energy Regulatory Commission. The results are presented in table 4.
Table 4: Strategies Adopted by Oil Firms after Price Regulation

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved service quality</td>
<td>3.571</td>
<td>0.534</td>
</tr>
<tr>
<td>Focus strategy by targeting specific market segments</td>
<td>3.428</td>
<td>1.718</td>
</tr>
<tr>
<td>Pricing strategy where we price lower than our competitors</td>
<td>3.142</td>
<td>1.463</td>
</tr>
<tr>
<td>Low cost strategy</td>
<td>1.571</td>
<td>0.534</td>
</tr>
<tr>
<td>Differentiation of our products</td>
<td>1.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Author (2012)

As shown in table 4, the results show that service quality was the most adopted strategy by most of the firms (mean = 3.571). Further, the results show that focus strategy where specific market segments were targeted was the second most adopted competitive strategy (mean = 3.428). The third used strategy was pricing strategy where firms sought to price their products lower than others (mean = 3.142). The study found that the least employed strategies were low cost strategy (mean = 1.571) and product differentiation (mean = 1.000).

The respondents were asked to state the extent to which they thought that the price of fuel was currently lower that it was before the introduction of price regulations by the Government. The results are shown in table 5.

Table 5: Is Price of Fuel Lower than Before Price Regulation?

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large extent</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Very large extent</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2012)
The study found that 71% of the respondents believed to a large extent that the prices were lower while 29% believed to a very large extent that the prices were lower than before government regulations. These results indicate therefore that the respondents were in agreement that the price of fuel was lower than before the price regulation by the Government.

4.4 Discussion of Findings

The study attempted to establish what strategies oil marketing firms are employing now that price is regulated by the Government. The results have indicated that price is still one of the major strategies that oil firms are employing to compete in the industry. The Government through ERB gives a price ceiling. Oil firms therefore attempt to price lower than their competitors but just around the price ceilings provided by the Government.

The study has also established that oil marketing firms are mostly resorting to the use of improved service quality as a competitive advantage. Given that this is a service industry, the firms are striving to improve the quality of services offered especially through the use of better customer care to the customers and also offering other after sale services such as cleaning cars for their customers at no added cost other than the cost of buying the fuel.

Another strategy that oil marketing firms are currently employing is the focus strategy. Under this strategy, the firms target specific market segments. For instance, the firms sell unleaded petrol as well as leaded petrol. Others have introduced high grade fuels which are marketed specifically to the high end market.
The study revealed that the oil marketing firms are not competing on low cost strategy. This can be attributed to the fact that there is usually one supplier to all the firms and the cost is the same for all the firms hence impossible to get better prices for oil elsewhere. There is therefore little oil marketing firms can do to compete based on the costs of production.

Lastly, the study revealed that differentiation as a competitive strategy was rarely used by the oil marketing firms. This can be attributed to the kind of product the firms deal in where it is virtually impossible to difference the product further.
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter presents the summary of the study in section 5.2, conclusion in section 5.3, recommendations for policy in section 5.4, limitations of the study in section 5.5, and suggestions for further research in section 5.6.

5.2 Summary
The objective of this study was to determine the effect of price regulation on competition among oil firms in Kenya. This was a descriptive survey. The target population for this study was all the 10 oil marketing firms in Kenya. Primary data was collected using a structured questionnaires administered to the Managing Directors using drop-and-pick later method. The analysis was done using descriptive statistics such as mean scores and percentages.

The study found that service quality was the most adopted strategy by most of the firms (mean = 3.571). The second strategy was focus strategy where specific market segments were targeted was the second most adopted competitive strategy (mean = 3.428). The third strategy was pricing strategy where firms sought to price their products lower than others (mean = 3.142). The least employed strategies were low cost strategy (mean = 1.571) and product differentiation (mean = 1.000). The study also found that the price of fuel was lower than before the introduction of price ceilings. The intensity of competition was also low after the introduction of price regulations.
5.3 Conclusion
The study concludes that the price of fuel in the price regulation era was marginally lower than the period before the price regulations. This was confirmed from the respondents who noted that the prices were generally lower than before.

The study also concludes that competition in the oil industry was more intense before the introduction of price ceilings than after. This suggests that price ceilings have reduced the level of competition in the oil industry.

The study concludes that oil marketing firms are employing three major strategies to compete with each other in the era of price regulations. These strategies are service quality, focus strategy, and pricing strategy.

5.4 Recommendations for Policy
The study recommends that there is need for the oil marketing firms to be allowed to import oil on their own from the suppliers they are comfortable with. This will give them the leeway to negotiate better prices hence reduce their costs and enable them to price the fuel better in the market.

The study also recommends that oil marketing firms need to understand the competitive dynamics of the industry and devise strategies to compete on. It is important that measures be taken to improve the quality of service offered as a better avenue to compete in the industry.
5.5 Limitations of the Study
The study was conducted in a price regulation regime and no attempt was made to compare the prices in this regime with the prices before the regime through collection of secondary data on the prices. The results regarding the low prices should therefore be interpreted with caution as this was based on the responses of the Managing Directors.

This study also used primary data where only the Managing Directors of oil marketing firms were the respondents. The study therefore suffers from the problems of primary data.

5.6 Suggestions for Further Research
The study suggests that future studies need to be done on the oil marketing firms where primary data can be triangulated with secondary data especially on the prices of fuel in order to determine whether there are any differences in the prices of fuel before and after the price ceilings introduced by the Government.
REFERENCES


APPENDICES

Appendix 1: Research Questionnaire

Section 1: Bio-Data

1. Company name: ........................................................................................................

2. Your position in the company: ..............................................................................

3. When did your company begin its operations in Kenya? State the year.
..............................................................................................................................

4. How long have you been working in the company?

   Less than 2 years      [  ]
   2 – 4 years           [  ]
   5 – 7 years           [  ]
   Over 7 years          [  ]

5. How many employees does the company have?

   Less than 50           [  ]
   50 - 200               [  ]
   201 - 400              [  ]
   Over 400               [  ]

6. How many stations does the company have in Kenya?

   Less than 20           [  ]
   20 – 50                [  ]
   51 - 100               [  ]
   101 - 200              [  ]
   Over 200               [  ]
Section 2: Competition in the Industry

7. What can you say about the level of competition before the introduction of price caps by the government through the Energy Regulatory Commission?
   - Very low [ ]
   - Low [ ]
   - Moderate [ ]
   - Intense [ ]
   - Highly intense [ ]

8. What can you say about the level of competition after the introduction of price caps by the government through the Energy Regulatory Commission?
   - Very low [ ]
   - Low [ ]
   - Moderate [ ]
   - Intense [ ]
   - Highly intense [ ]

9. What competitive strategies have you adopted after the introduction of price caps by the government through the Energy Regulatory Commission? Tick the extent to which each strategy has been employed where 1 means least employed while 5 means highly employed.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation of our products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. To what extent do you think that the price of fuel is currently lower than it was before the introduction of price regulations by the Government?

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very large extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The end