

**THE EFFECT OF FOREIGN EXCHANGE EXPOSURE
ON FINANCIAL PERFORMANCE OF OIL MARKETING
COMPANIES IN KENYA**

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FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
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DECLARATION

I declare that this research project is my original work and it has not been submitted to this or any other university or institution for any examination or other purposes.

Signed.....

Date.....

SUNDAY MAKER

D61/72708/2014

This research project has been submitted for examination with my approval as the University supervisor.

Signed.....

Date.....

SUPERVISOR: PROF. JOSIAH ADUDA

DEDICATION

I dedicate this research work to the Almighty God for His provision. To family members, Uncle Dut Abraham Gum, Dad Maker Abraham Gum, Mom Monica Abuok Bol Yak and the rest for making me achieved this. And to my friends, for understanding my absence in many social activities and finally to my classmates for their constant morale.

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ABBREVIATIONS AND ACRONYMS

ROA	Return on Asset
ROE	Return on Equity
OTS	Open Tender System
NSE	Nairobi stock exchange
ERC	Energy Regulatory Commission
SPSS	Statistical Package for Social Sciences

ABSTRACT

Corporates whose business involves dealing with foreign currency are inevitably exposed to foreign exchange risk, Foreign exchange exposure affect operating cash flows and firm value through translation, transaction, and economic effects of exchange rate risk exposure. Income based on fair values reflects income volatility more than historical cost-based income, The study sought to establish the effect of foreign exchange exposure on financial performance of oil marketing companies in Kenya, This study adopted a descriptive research design, The target population for this study was the 55 companies and sample 12 registered by Energy Regulatory Commission, where all the companies were involved , secondary data from 2010 to 2014 on performance of oil marketing companies in Kenya was collected from the Energy Regulatory Commission. Secondary data was used in this study; specifically the study used financial statements the data was coded using SPSS (version 21). The study revealed that found that there existed significance strong and negative correlation between foreign Exchange Exposure, interest rates and profitability (ROA). The study revealed that capital adequacy and firm sized had strong and positive correlation with profitability (ROA). The study established that there foreign exchange rate had significant negative effects of profitability of oil marketing companies. The high foreign exchange rate and interest rates would result into devaluation of the local currency leading to foreign loss and reduction in profitability. The regression results revealed that the capital adequacy and firm size had positive effects on Oil marketing company's profitability (ROA). The study concluded that high Foreign Exchange rate (V) affects oil company's profitability due to devaluation of local currency resulting into foreign loss indicating high oil company financial position sensitivity to changes in the exchange rate usually in US Dollar. The study concluded that capitalized oil marketing companies have high Capital Adequacy (CAPR) mean with a relatively peaked distribution as indicated by positive KURT indicating high capacity of the companies to mitigate foreign exposure risks. The study concluded that high interest rate would have significant and negative effects on Oil Company's profitability hence increase in interest rates increase the cost of acquiring working capital and significantly decrease in profitability (ROA).

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Corporates whose business involves dealing with foreign currency are inevitably exposed to foreign exchange risk. The management of this risk has increasingly become essential for survival of companies in today's volatile financial markets. The risk arises from exposure of an organization to potential fluctuations in foreign exchange rates. These fluctuations can occasion instability in profit margin, expected future cash flows as well as significant losses to organizations (Lei & Niannian, 2007). Trade and investment in a country are likely to be impacted by the happenings in the foreign exchange market. This means therefore that a stable exchange rate, is likely to have positive effects on household incomes and consumption; firms' investment, import and employment decisions; government's fiscal, debt and monetary policies; and trade balance (Adebiyi, 2006). Moreover, exchange rate stability is likely to discourage capital flight and speculation in the foreign exchange market. It has been established that foreign exchange developments affect all aspects of an open economy including its financial markets..

Charles (2006) for instance established that floating exchange rate appreciation reduces the competitiveness of export markets; and has a negative effect on the domestic stock market of export dominated economies. However, it has positive effect on the stock market by lowering input costs, for an import dominated country. In effect countries such as Kenya which is import oriented can experience price instability in the face of exchange rate volatility because its economy is heavily dependent on imports of raw materials, capital goods and consumer goods, hence, the need to manage the foreign exchange market.

Foreign exchange exposure therefore plays an increasingly significant role in any economy as it directly affects domestic price level, profitability of traded goods and services, allocation of resources and investment decision. The impact of foreign exchange exposure on trade has been studied more in industrialized countries than in less developed economies. Agu (2002) state that this lack of attention in developing countries is caused by insufficient time series data. According to Gachua (2011) there is a need for this kind of empirical studies to be undertaken in developing countries such as Kenya with time-variant exchange rates in order to counter this prevalent ambiguity in the literature and fill the research vacuum in less developed countries.

1.1.1 Foreign Exchange Exposure

Foreign exchange exposure refers to the sensitivity of a firms cash flows, real domestic currency value of assets, liabilities, or operating incomes to unanticipated changes in exchange rates. Such operational hedges may help to explain why previous studies have found low or negligible levels of exposure when they studied the sensitivity of share prices to foreign exchange rates. In addition to allocating corporate responsibilities, a thorough foreign exchange policy must specify approved techniques for hedging exposures.

Exchange rate movements affect both the prices of imported finished goods and the costs of imported inputs, thus influencing indirectly those companies that compete with such firms (Grambovas & McLeay, 2006). Exchange rates may affect a firm through a variety of business operation models: a firm may produce at home for export sales as well as domestic sales, a firm may produce with imported as well as domestic components, and a firm may produce the same product or a different product at plants abroad. The model of the firm must be broad enough to capture all of these

channels. The firm described below is a multinational firm (producing and selling at home and abroad) that uses both foreign and domestic components.

Saunders and Cornett (2008), noted that foreign currency exposures arise whenever a company has an income or expenditure or an asset or liability in a currency other than that of the balance-sheet currency. Indeed exposures can arise even for companies with no income, expenditure, asset or liability in a currency different from the balance-sheet currency. When there is a condition prevalent where the exchange rates become extremely volatile the exchange rate movements destabilize the cash flows of a business significantly. Such destabilization of cash flows that affects the profitability of the business is the risk from foreign currency exposures.

1.1.2 Financial of Performance

Neely (2005), present two dimensions of performance. Effectiveness is one of the dimensions, efficiency the other. Effectiveness is described as to the extent shareholder and/or stakeholder requirements are met and efficiency as, provided a given level of stakeholder satisfaction, how economically the business' resources are utilized. In its broader meaning they define performance measurement as "the process of quantifying the efficiency and effectiveness of action". Even if the broader meaning remains the same, the substance of performance measurement changes over time. The idea of what should be measured, how it should be used and in which context are far from constant.

Financial performance measures the extent to which a business generates a profit from the use of land, labor, management, and capital. It is measured by net firm income from operations, rate of return on firm assets (ROA), rate of return on firm equity (ROE) and operating profit margin. Net revenues available from normal operations

after fixed and variable expenses have been deducted and for accuracy, it is calculated on an accrual basis. Operating profit reflects ability to generate revenues and control costs. It is revenue available to compensate debt and equity capital (Charles, 2006).

Performance in organisations can be separated in organisational performance and job performance (Otley, 2009). According to Otley, the performance of organisations is dependent upon the performance of employees (job performance) and other factors such as the environment of the organisation. The distinction between organisational and job performance is evident; an organisation that is performing well is one that is successfully attaining its objectives, in other words: one that is effectively implementing an appropriate strategy and job performance is the single result of an employee's work (Hunter, 2006). Since the aim of this thesis is to provide a link between motivating employees and their performance, organisational performance lies outside the scope of this research and only job performance is addressed.

1.1.3 Effect of Foreign Exchange Exposure on Financial Performance

Under today's system of floating foreign exchange rates, currencies often move erratically over short periods. Empirical studies demonstrate that foreign exchange volatility can have significant impact on companies' profits. In addition, Saunders and Cornett (2008), observed that under current system of floating exchange rates, investors have experienced significant real and volatility in earnings as a result of relative fluctuations in foreign exchange rates. Most researchers have measured the impact by studying how changes in foreign exchange rates affect market capitalization. Periods of significant foreign exchange movements produce substantial changes in stock market capitalization.

The use of foreign exchange management strategies results in reduced foreign exchange exposure hence minimal losses. According to Charles (2006), changes in exchange rate can influence a firm's current and future expected cash flows and ultimately, stock prices. The direction and magnitude of changes in exchange rate on firm's value are a function of a firm's corporate hedging policy which indicates whether the firm utilizes operational hedges and financial hedges to manage currency exposure and the structure of its foreign currency cash flows. Saunders and Cornett (2008), examine risk management and performance in a sample of firms in 14 companies listed on the Johannesburg stock exchange. They find that better risk management is associated with better performance in the form of Tobin's q and ROA. Earlier studies by Merikas (1999), suggested that foreign exchange exposure management would benefit companies. Risk management could reduce the effect of foreign exchange risk volatility on companies. Hence, foreign exchange risk management gives positive effect to shareholders. Torcher (2005), in a study on United States companies showed that foreign exchange exposure management adds value to them. Foreign exchange exposure management has a positive correlation with foreign exchange risk. Organizations manage foreign exchange risk using a variety of strategies and products. Strategies for managing this type of risk often entail use of financial derivatives. These are securities whose value is derived from the value and characteristics of underlying security. The most common types of derivatives include: forward contracts, future contracts, options and swaps. The derivatives are traded widely among financial institutions and on organized exchange platforms (Torcher, 2005).

1.1.4 Oil Marketing Companies in Kenya

According to Chiira (2009), Petroleum is Kenya's major source of commercial energy and has, over the years, accounted for about 80% of the country's commercial energy requirements. Demand for oil in Kenya is quite small in global standards but the highest in East Africa making it a Key Market in the region for Oil Products. The domestic demand for various petroleum fuels on average stands at 2.5 million tons per year, all of it imported from the Gulf region, either as crude oil for processing at the Kenya Petroleum Refineries Limited or as refined petroleum products. Prior to liberalization in 1994, Kenyan government was well involved in the sector especially on controlling pricing. Mostly Multination Corporation participated with correspondingly low level of local company's involvement. Since liberalization, many new companies have been licensed by the government to engage in petroleum trading, especially import and export, wholesale and retail of petroleum products.

Kenya refines 50% of local oil requirements with a mandatory processing by all marketing companies on the basis market share. The rest is imported as fully refined through an Open Tender System OTS supervised by ministry on Energy. Kenya Pipeline Company Limited which is wholly owned by the government offers primary transport of refined products to Nairobi and western Kenya. National Oil Corporation of Kenya limited was incorporated in 1981 under the Companies Act (Cap 486) with main objective then to coordinate oil exploration (upstream) activities. In 1988 the company was mandated on behalf of the government to supply 30% of the country's crude oil to help stabilize local oil prices (Omagwa, 2012).

According to Dunning (2011), a multinational corporation is “an enterprise that engages in foreign direct investments and owns or controls value adding activities in more than one country. Multinational Oil Companies in Kenya include, Total Kenya

Limited, Libya Oil and Kenya Shell. These companies operate in all sectors of oil marketing in Kenya including Supply trading, Wholesale and Retail Marketing and Export. According to Petroleum Institute of East Africa (2011), these three Multinationals had a combined market share of 42%. They tend to adapt global strategies in their local businesses. The Regional Emerging Multinational Companies mainly have their business in Africa and more spread in East and Southern region. These companies apply Multi-Domestic Strategies in countries where they operate. In 2011 they had a total of about 47% market share according to Petroleum Institute of East Africa (2011). The main players in this category include Kenol/Kobil, Libya Oil, Gapco and Engen. These companies are mainly represented in Africa and mainly in South of Sahara and started acquiring already established affiliates of global multinational companies.

1.2 Research Problem

Foreign exchange exposure affect operating cash flows and firm value through translation, transaction, and economic effects of exchange rate risk exposure. Income based on fair values reflects income volatility more than historical cost-based income. It is also found that income is (not) more volatile with the recognition of unrealized fair value gains/losses on financial instruments (investment property). Results of assessing the relative explanatory power of income volatility measures suggest that not all fair value income volatility measures can be a good proxy of the total risk. This can be seen in IAS 39 and its subsequent amendments, which permit a mixed system of measurement for investments (Dickinson & Liedtke, 2004).

Foreign investment in Kenya continues to increase drastically, as a result of Multi-national and transnational corporations making their way into the Kenyan market. Kenyan corporate units are also engaging in a much wider range of cross border

transactions with different countries and products. The firms have also been more active in raising financial resources abroad. It is generally believed that foreign exchange fluctuations and the unpredictability of foreign sales affect the firms' level of profitability. All these developments combine to give a boost to cross-currency cash flows, involving different currencies and different countries

Irene (2011) did a study on the relationship between foreign exchange risk and financial performance of Airlines in Kenya whose objective was to establish the relationship between foreign exchange risk and financial performance of Kenya Airways. She used a case study design. From her findings, there is a negative relationship between forex risk and financial performance. Currency fluctuations impact on prices hence negative impact on revenues and expenses denominated in foreign currency. Muriithi (2011), did a study whose objective was to establish the relationship between foreign exchange rate and market performance for manufacturing companies.

Mongereri (2011), did a study on the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE share index whose objective was to determine the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE index. The study used a longitudinal study design. Results showed a positive relationship between forex rates and stock market performance. Differences in forex rates had a direct impact on stock market performance. Finally, Onyancha (2011), did a study on the impact of foreign exchange gains and losses in the financial performance of international Non-governmental organizations. His findings showed that exchange rate risk can reduce project quality.

Farah (2013), did a study on the effect of foreign exchange rate volatility on the financial performance of oil marketing companies in Kenya. The study found that, there exists no significant relationship between inflation and financial performance. In the same regard, the study revealed that there was no significant relationship between performance and interest rates. Further the study showed no significant relationship between foreign exchange volatility and performance. From the above studies, little has been done on the effects of foreign exchange exposure on performance of oil marketing companies in Kenya. Therefore this study sought to answer the question; what is the effect of foreign exchange exposure on financial performance of oil marketing companies in Kenya?

1.3 Objective of the Study

To establish the effect of foreign exchange exposure on financial performance of oil marketing companies in Kenya

1.4 Value of the Study

The findings from this study will therefore be of importance because they will have the capacity of being used to formulate positive fiscal policies which are relevant and sensitive to the forces influencing the foreign exchange in Kenya. The study will enable policy makers obtain knowledge of oil marketing sector dynamics and the appropriate marketing channels to be applied to enhance economic performance and therefore obtain guidance from this study in designing appropriate policies that will regulate the oil marketing sector in the country.

The findings of the study are of great importance to help corporate managers and shareholders in thrift international financial management. The study will enhance foreign exchange terms to help businesses remain competitive, the study will help

firms to reduce non-cash flows risk because of local currency devaluation, the study will help firms understand and learn best practice procedures to monitor and manage these risks and their impact on profits.

To the academicians the study will contribute to the existing literature in the field of foreign exchange and marketing of the country. It should also act as a stimulus for further research to refine and extend the present study especially in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presented a review of the effect of foreign exchange exposure on financial performance from previous studies and the gap to be closed by this study.

The chapter was organized as follows:

2.2 Theoretical Framework

This study was guided by the following theories; Foreign Exchange Exposure Theory, International Fisher Effect Theory and Purchasing Power Parity theory

2.2.1 Foreign Exchange Exposure Theory

The early research on Foreign Exchange exposure goes back to the work of Adler and Dumas (1984), who defined Foreign Exchange exposure as the effect of unexpected changes in foreign exchange rates on cash flows, by extension, firm value. Contemporary foreign exchange exposure theory (Buckley, 2000) is of the opinion that exchange rate fluctuations should affect the value of a multinational company mainly via foreign sales and foreign (net) assets, which have to be denominated in the domestic currency of the parent company. Despite that, the earliest empirical studies on the topic although focusing on companies with considerable operations abroad, fail to show a significant impact of fluctuations in exchange rates on the stock price of multinational companies. More recent studies by Hill (2004), however, are more consistent with financial theory and find that exchange rate movements, through their effect on sales and net assets values, are an important factor in determining firm value.

Most studies on exposure focus on multinational corporations, whereas Aggerwal and Harper (2010), focus on domestic firms. Perhaps counterintuitively for most

managers, they find that domestic firms face significant foreign exchange exposure – on average the exposure is not significantly different from the exposures faced by multinational corporations. Domestic firms are in fact experiencing foreign exchange exposure, because of increasing globalization of financial and product markets, domestic firms may face currency risk through interest rates and financial markets and through product markets such as: competitors, suppliers and customers may as well engage in cross-border transactions. Though, domestic firms face foreign exchange exposure, studies by Jorion (1990), suggests that foreign exchange exposure is positively related to their foreign sales variable. Thus, more export will be accompanied by a higher foreign exchange exposure. This could give the impression that the more a firm expands its international operations the more foreign exchange exposure it will encounter. However, research show that the foreign exchange exposure coefficients of multinational corporations are actually less significant than those of domestic firms, which disproves this notion. Jorion (1990), reach the conclusion within their study, that the foreign exchange exposures of multinational corporations are weak, if at all significant. Jorion's (1990), research shows similar results, as only 5.2% of the sample of Multinational Corporation's experiences foreign exchange exposure.

2.2.2 International Fisher Effect Theory

The international fisher effect theory suggests that foreign exchange with relatively high interest rates tend to depreciate because the high nominal interest rates reflect expected rate of inflation (Madura, 2010). In the long-run, a relationship between interest rate differentials and subsequent changes in spot exchange rate seems to exist but with considerable deviations in the short run (Hill, 2004).

This inconsistency may be explained by the fact that there is a whole host of factors that could cause exchange rates fluctuations. These include foreign exchange supply and demand, balance of payments problems, rising inflation, interest rate, national income, monetary policy, expectations and speculations (Khalwaty, 2000). Thomas (2005), conducted a test of the international fisher effect theory by examining results of purchasing future contracts of currencies with higher interest rate that contained discounts (relative to the spot rate) and selling futures on currencies with low interest rate that contained premiums. Contrary to the international fisher effect theory the study found that 57 percent of the transactions created by this strategy were profitable. The average gain was higher than the average loss. If the theory holds, the high interest rate currencies should depreciate while the low interest rate currencies should appreciate, therefore yielding insignificant profits by the transactions.

Adler and Lehman (2003), found evidence of significant variation in the relationship between inflation rate differential and foreign exchange exposure. Khalwaty (2000), found however that even in the long-run, the relationship between inflation rates differentials and exchange rates was not perfect but recognized the use of inflation differentials in forecasting long-run movements in exchange rates. The relationship between interest rates and inflation, first put forward by Fisher (1993), postulates that the nominal interest rate in any period is equal to the sum of the real interest rate and the expected rate of inflation. This is termed the fisher effect. Fisher (1993), hypothesized that the nominal interest rate could be decomposed into two components, a real rate plus an expected inflation rate. He claimed a one-to-one relationship between inflation and interest rates in a world of perfect foresight, with real interest rates being unrelated to the expected rate of inflation and determined entirely by the real factors in an economy, such as the productivity of capital and

investor time preference. This is an important prediction of the Fisher hypothesis for, if real interest rates are related to the expected rate of inflation, changes in the real rate will not lead to full adjustment in nominal rates in response to expected inflation.

2.2.3 Purchasing Power Parity Theory

This theory is built around the idea of the exchange rates reflecting relative purchasing powers of the currencies under. Purchasing power parity focuses on the inflation exchange rate relationship and it is in two forms: The Absolute form, also referred to as the “law of one price” suggests that “prices of similar products of two different countries should be equal when measured in a common currency” if a discrepancy in price as measured by the common currency exists, the demand should shift so that these prices converge. This absolute version is however too idealistic and does not factor in market imperfections like taxes and transportation costs (Adler & Lehman, 2003). An alternative version of the absolute form comes in to account for these market imperfections and states that because of the market imperfections, prices of similar products of different countries will not necessarily be the same when measured in a common currency it states that the rate of change in prices of these products should be almost similar when measured in a common currency as long as the imperfections remain unchanged. In equilibrium form: According to this theory, any differential exchange rate to the one propounded by the theory is the real appreciation of real depreciation of the currency over the other.

According to Laidler and Aba (2002), the concept of purchasing power parity allows one to estimate what the exchange rate between two currencies would have to be in order for the exchange to be at par with the purchasing power of the two countries' currencies. Using that purchasing power parity rate for hypothetical currency conversions, a given amount of one currency thus has the same purchasing power

whether used directly to purchase a market basket of goods or used to convert at the purchasing power parity rate to the other currency and then purchase the market basket using that currency. Observed deviations of the exchange rate from purchasing power parity are measured by deviations of the real exchange rate from its PPP value of one.

2.3 Determinants of Firm Financial Performance

The following subsection presents a summary of findings with regards to the various determinants of firm performance. The internal factors of oil marketing companies are specific variables which influence the profitability of specific firms. These factors are within the scope of the firm to manipulate them and that they differ from one organization to another. These include capital size, size of liabilities, size and composition of credit portfolio, labor productivity, and state of information technology, risk level, management quality, firm size, ownership and the like (Dang, 2011). The macroeconomic policy stability, Gross Domestic Product, Inflation, Interest Rate and Political instability are also other macroeconomic variables that affect the performances of firms

2.3.1 Capital Adequacy

Capital is one of the specific factors that influence the level of firm's profitability for marketing companies. Capital is the amount of own fund available to support the business and act as a buffer in case of adverse situation (Athanasoglou, 2005). Capital creates liquidity for the bank due to the fact that it reduces the chance of distress. However, it is not without drawbacks that it induce weak demand for liability, the cheapest sources of fund Capital adequacy is the level of capital required by the oil marketing firms to enable them withstand the risks such as credit, market and operational risks.

Tangible assets provide collateral to lenders in times of financial distress and act as security against debt. Tangible assets also represent protection to lenders against moral hazards resulted by the shareholder-creditor conflict. Therefore firms with the higher level of tangible assets are more likely to employ higher levels of leverage. According to Dickinson and Liedtke (2004), there is a strong negative relation between a firm's operating performance and tangibility but a positive association with long term debt. For instance, firms with relatively risky, intangible assets tend to borrow less than firms with safe, tangible assets.

2.3.2 Inimitable Resources

Inimitable resources give sustained competitive advantage to oil marketing companies when they are valuable, rare, imperfectly imitable and non-substitutable. Resources must yield a superior product/ service or lower costs in order to be valuable and they must be rare to ensure that the resource holders do not compete away the value they create. The resources must be imperfectly imitable and not substitutable in order to prevent entry using either the same resource or an equivalent one (Hunter, 2006). The need to invest large financial resources by oil marketing companies in order to compete creates an edge, particularly if the capital is required for risky or unrecoverable up-front advertising or research and development. Even if capital is available on the capital markets, imitation represents a risky use of that capital which should be reflected in risk premiums charged the prospective entrant; these constitute advantages for going firms.

Although a specific resource or capability may be found to exhibit a strong correlation with competitive advantage or performance in a particular context, that resource or capability may simply not fit with the enterprise level of all firms operating in that context. Managers need to autonomously identify and in turn seek out and exploit

resources and capabilities that might not only contribute to their firm's competitive position but also fit with their idiosyncratic business models. The magnitude of a firm's performance is a function of its resources and capabilities; firms whose resources and capabilities are of marginal value will at best attain competitive advantage while firms whose resources and capabilities are of great value will likely attain sustainable advantage (Dang, 2011).

2.3.3 Interest Rates

According to Otley (2009), there are other variables that need to be considered in performance function. One important controversial variable is the interest rate. The domestic interest rate represents the opportunity cost of holding money; thus the public would prefer to hold more financial assets such as treasury bills, bonds, etc., during times of high interest rate. Bank interest rate spreads are provided by net interest margin. An empirical study to find out the relationship between macroeconomic variables, other variables and profitability. Net interest income divided by total assets. Here the spread is measured as the difference between the average interest rate earned on loans and the average interest rate paid. If the interest margin is lower, the social costs of financial intermediation will be lower (Neely, 2005). The analysis of net interest margins measured by the cost of financial intermediation; that is, the difference between the gross cost paid by a borrower and the net return received. In the money demand function for the financially developed industrial countries, this is beyond controversy. However, the role of interest rate in developing economies deserves some attention. The standard demand for money model which requires a well-developed financial market has been corroborated by many theoretical and empirical studies.

2.3.4 Management Efficiency

Efficiency is one of the key internal factors that determine the profitability of oil marketing companies. It is represented by different financial ratios like total asset growth, growth rate and earnings growth rate. Yet, it is one of the complexes subject to capture with financial ratios. Moreover, operational efficiency in managing the operating expenses is another dimension for management quality (Charles, 2006). The performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others. Yet, some financial ratios of the financial statements act as a proxy for management efficiency.

The capability of the management to deploy its resources efficiently, income maximization, reducing operating costs can be measured by financial ratios. One of these ratios used to measure management quality is operating profit to income ratio (Sangmi & Nazir, 2010). The higher the operating profits to total income the more the efficient management is in terms of operational efficiency and income generation. The other important ratio is that proxy management quality is expense to asset ratio. The ratio of operating expenses to total asset is expected to be negatively associated with profitability. Management quality in this regard, determines the level of operating expenses and in turn affects profitability (Atindéhou & Gueyie, 2001).

2.4 Review of Empirical Studies

Laidler and Aba (2002), presented a method of estimating the foreign exchange exposure using a single-factor market model to estimate the elasticity of firm equity returns to exchange rate changes. Jorion (1991) estimates exposure using a two-factor model that thereafter became the norm for estimating foreign exchange exposure controlling for market risk. For a sample of firms drawn from the Fortune 500, he

finds that the degree of exposure varies directly with the degree of foreign involvement. Other studies have reconfirmed these basic findings regarding the foreign exchange exposure faced by internationally involved and multinational companies, and explored in greater detail various issues that arise in the procedures used for estimating such exposure - issues that are important considerations in this study. The first issue is the nature of the market model used to estimate corporate foreign exchange exposure. The focus of this paper is not the validity or efficiency of the various asset pricing models, but instead, based on prior studies, the research focus on how foreign exchange exposure is estimated.

Studies have focused on exposures of internationally involved or multinational firms. Using a large sample of firms from many different countries, Doidge and Williamson (2002), found that foreign exchange exposure is related to the level of foreign activity. They also find that large firms exhibit more foreign exchange exposure than smaller firms after controlling for the level of foreign activity. They found an increase in equity volatility following the breakdown of the Bretton Woods agreement and increased exchange rate volatility but equity risks increased much more for firms with a multinational presence than it did for a control sample of domestic firms. Similarly, Jorion (1990) used a two-factor model for sample portfolios of large corporations and found the exposure varied with the degree of foreign involvement while the exposure for a sample of domestic firms is not significantly different from zero.

Fisher (1993), found that foreign sales are a major determinant of exposure but there is considerable time variation in exchange rate exposure. However, Adler and Dumas, (2004), found the effect of exchange rate shocks is minimal in explaining relative US industry performance and is even smaller in other countries that are more open to trade finding that industry effects are more significant than exchange rate effects.

While there may be some differences in empirical findings, as Marston (2001) shows, foreign exchange exposure most likely depends on the competitive structure in an industry.

He and Ng (2008) use a sample of Japanese firms and find that a quarter of their sample of multinational firms have exposure and is positively related to size and negatively related to financial leverage. Koutmos and Martin (2003) use industry sector portfolios from four countries and find that exchange rate exposure is asymmetric over different appreciation depreciation periods. Furthermore, these asymmetries are more pronounced in the financial and non-cyclical sectors. Overall, studies of foreign exchange exposure found that multinational corporations and corporations with extensive foreign business have significant foreign exchange exposure.

Onyancha (2011), did a study on the impact of foreign exchange gains and losses in the financial performance of international Non-governmental organizations. The study used a survey research design. His findings showed that exchange rate risk can reduce project quality. Also, exchange rate movements have an impact on financial performance of NGOs. Huge foreign exchange loss reduces asset quality.

Muriithi (2011), did a study whose objective was to establish the relationship between foreign exchange rate and market performance for manufacturing companies. The study used a descriptive research design. His study showed that exchange rates had a positive influence on market performance. In addition, Mongeri (2011), did a study on the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE share index whose objective was to determine the impact of

foreign exchange rates and foreign exchange reserves on the performance of NSE index.

Irene (2011), did a study on the relationship between foreign exchange and financial performance of Airlines in Kenya whose objective was to establish the relationship between foreign exchange and financial performance of Kenya Airways. She used a case study design. From her findings, there is a negative relationship between foreign exchange risk and financial performance. Currency fluctuations impact on prices hence negative impact on revenues and expenses denominated in foreign currency

2.5 Summary of Literature Review

Extensive studies have been done on the effect of foreign exchange exposure on financial performance of banks and interest rate on various macroeconomic variables and its impact on the different sectors of the economy. Existing empirical evidence is however mainly based on developed countries whereas a few empirical investigations had been undertaken in African countries like Kenya. There is therefore a gap as far as studying effect of foreign exchange exposure on financial performance of oil marketing companies in Kenya is concerned. It is evident that it has not been done fully especially in the emerging markets. In addition, most of the studies conducted have been in developed countries and they are not conclusive. This study therefore seeks to fill this gap by examining the effect of foreign exchange exposure on financial performance of oil marketing companies in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the research design and methodology that was used to carry out the research. It also presents the population, data collection and data analysis.

3.2 Research Design

This study adopted a descriptive research design. According to Schindler (2003), a descriptive research design is appropriate where the study sought to describe the characteristics of certain groups, estimate the proportion of people who have certain characteristics and make predictions. Mugenda and Mugenda (2003), describes descriptive research design as a systematic, empirical inquiry into which the researcher does not have a direct control of the independent variables as their manifestation has already occurred or because the independent variable cannot inherently be manipulated.

3.3 Target Population

Target population in statistics is the specific population about which information is desired. According to Ngechu (2004), a population is a well-defined or set of people, services, elements, and events, group of things or households that are being investigated. The target population for this study was the 12oil marketing companies registered by Energy Regulatory Commission (ERC, 2014).

3.4 Data Collection

The study used secondary data on performance of oil marketing companies in Kenya collected from the Energy Regulatory Commission. The use of secondary data is justified on the basis that some of these sources have information that is very pivotal to this study and has been vetted and accepted. This study investigated the value

relevance of foreign exchange currency exposure for oil marketing companies in Kenya for the period covering years 2010 to 2014 forming a wealth of data. Secondary data on performance of oil marketing companies in Kenya was collected from the financial supervisory report in Energy Regulatory Commission and from oil companies' financial books and financial reports. From financial report, financial performance, ROA was extracted and total assets. Data on Foreign Exchange Exposure, Capital adequacy, (CAPR), firm size (LOGTA), Interest Rate (IR) was also be extracted from financial statements of oil companies. The data was collected for the period 2010-2014.

3.5 Data Analysis

Freund (2001), underscores that the main objective of any statistical investigation is to determine relationships that make it feasible to predict one or more variables in terms of other variables. The obtained data was analyzed using Microsoft Excel and the Statistical Package for Social Sciences (SPSS) and was presented in tables, mean, standard deviation and Kurtosis to enable effective and efficient interpretation. The researcher collected data on performance. Using this data, the researcher conducted a regression analysis to establish the effect of foreign exchange exposure on performance.

The study will apply the following regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where Y = is the performance (measured by return on assets (ROA)).

X₁ = Foreign Exchange Exposure (exchange rate fluctuations)

X₂ = Capital Adequacy (measured by ratio of capital to risk weighted assets)

X₃ = Firm Size (natural logarithm of total assets)

X₄ = Interest Rates (Average annual interest rate/ Nominal interest rate differentials)

β_0 = constant term $\beta_1 - \beta_4$ are the regression co-efficient or change introduced in Y by each independent variable X_2 and X_3 (Capital Adequacy and Firm Size) are control variables

μ is the random error term accounting for all other variables that affect performance but not captured in the model. The researcher carried out a f-test at 95% confidence level to establish the significance of the independent variable in explaining the changes in the dependent variable.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the study on the relationship between credit risk management practices and the performance of loan portfolio of commercial banks in Kenya. The chapter presents the data analysis, results and discussions for the findings. Data was collected from secondary sources which were the financial statements of the oil companies. Data was analyzed using both descriptive and quantitative analysis using Microsoft Excel and SPSS. Data analysis was done was to determine the effect of foreign exchange exposure on financial performance of oil marketing companies in Kenya.

4.2 Data Collection and Analysis

The study sought to collect and analysis consolidated data from the 12 oil companies in Nairobi, Kenya. Secondary data on performance of oil marketing companies in Kenya was collected from the financial supervisory report in Energy Regulatory Commission and from oil companies' financial books and financial reports. From financial report, financial performance, ROA was extracted and total assets. Data on Foreign Exchange Exposure, Capital adequacy, (CAPR), firm size (LOGTA), Interest Rate (IR) was also be extracted from financial statements of oil companies. The data was collected for the period 2010-2014.

4.3 Descriptive statistics of variables

Table 4. 1: Descriptive statistics of variables for 2010 to 2014

	Profitability (ROA)	FX Exposure (V)	Capital Adequacy (CAPR)	Firm Size(LOG TA)	Interest Rates(IR)
Minimum	0.035	0.7523	0.2401	0.01	0.085
Maximum	0.093	0.9642	0.559	0.21	0.183
Mean	0.057	0.9054	0.3537	0.13	0.105
Std. Deviation	0.012	0.0498	0.0113	0.0086	0.034
Kurtosis	3.2759	-0.5681	0.5172	2.5692	-1.7602

The descriptive results on profitability of the oil companies, the study found that oil companies had profitability (ROA) mean of 0.057 with a Max of 0.093 and a Min of 0.035 with a standard deviation of 0.012 and relatively peaked distribution as indicated by KURT of 3.2759 for the year 2010 to 2014.

The mean of Foreign Exchange rates (FX Exposure, V) had a mean of 90.54 which could have deviated to a Max of 0.9642 and Min of 0.7523 and a standard deviation of 0.0498 with a relatively flatter distribution as indicated by KURT of -0.5681. This indicates high oil company financial position sensitivity to changes in the exchange rate usually in US Dollar.

The mean on Capital Adequacy (CAPR) was 0.3537 which could have deviated from a Max 0.559 and a Min of 0.2401, a standard deviation of 0.0113 with a relatively peaked distribution as indicated by positive KURT of 0.5172. This indicated that oil marketing companies were capitalized depending on the company's asset based.

The oil companies had a firm size (LOGTA) of mean 0.13 with a Max of 0.21 a Min of 0.01, a stand deviation (SD) of 0.0086 with a relatively peaked distribution as indicated by positive KURT of 2.5692. Thus clearly indicated that some oil marketing companies had a large asset base compared to the rest. The findings on interest rates, the study found that interest rates of the oil marketing companies had a mean of 0.105 which could have deviated to a Max of 0.183 and Min of 0.085 , a standard deviation (SD) of 0.034 with a with a relatively flatter distribution as indicated by negative KURT of -1.7602

4.4 Correlation Analysis

Table 4. 2: Pearson Correlation Analysis

	Profitability(ROA)	FX Exposure (V)	Capital Adequacy (CAPR)	Firm Size(LOGTA)	Interest Rates(IR)
	1				
Profitability(ROA)	0.000				
	43				
FX Exposure (V)	-.542*	1			
	.0011	0.0015			
	12	12			
Capital Adequacy (CAPR)	.414*	.439	1		
	.002	.066			
	12	12	12	1	
Firm Size(LOGTA)	.556*	.534	0.469	0.518	
	12	12	12	12	
	0.001	0.001	0.032	0.438	
Interest Rates(IR)	-.687*	.698	0.624	0.543	1
	0.001	0.00	.0214	.0749	
	12	12	12	12	12

Correlation is significant at 0.05 level (2-tailed)

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

Pearson correlation analysis was conducted to determine the strength of association between variables in the model. From Table 4.4, the study found that there existed a significant strong negative correlation between foreign Exchange Exposure and profitability (ROA) as Correlation coefficient $r=-0.542$, $P=0.011<0.05$. The study found that there existed a significant strong positive correlation between capital adequacy and profitability (ROA) as the correlation coefficient $r=0.414$, $P=0.002<0.05$.

The study found that there existed a significant strong positive correlation between firm size (LOGTA) and profitability (ROA) in oil marketing Companies as correlation coefficient $r=.556$, $P=0.001<0.05$. The study further established that there existed a significant strong negative correlation between interest rate and profitability (ROA) in oil marketing companies as correlation coefficient $r=0.687$, $P=0.001<0.05$. The correlation results are therefore consistent with the theoretically perceived relationship between these variables.

4.5 Regression Analysis and Hypothesis Testing

A regression analysis between the dependent variable and the independent variables was performed.

4.5.1 Regression Model Summary

Table 4.3: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig
0.6945 a	0.4823	0.4607	2.4676	0.00321

Independent Variables: (Constant), FX Exposure (V), Capital Adequacy (CAPR), Firm Size (LOGTA) and Interest Rates (IR)

Dependent Variable: Profitability (ROA)

The model summary results sought to determine whether there existed a variation between variable. From the results, R Square (R^2) was 0.4823, $P=0.0031$ which indicated that there existed a significant correlation between Profitability and FX Exposure (V), Capital Adequacy (CAPR) , Firm Size(LOGTA) and Interest Rates(IR) . The Adjusted $R^2 =0.4607$ coefficient of determination also indicated that there was significant variation between variables This implies that, there was a significant variation of 48.23% of ROA varied with variation in FX Exposure (V), capital adequacy (CAPR) , firm size(LOGTA) and interest rates(IR) at 95% confidence level.

4.5.2 Analysis of Variances

Table 4.4: Analysis of Variances in the Regression Model

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	21.248	4	5.312	2.684	0.002
Residual	84.472	8	10.559		
Total	109.720	12			

Independent Variables: (Constant), FX Exposure (V), Capital Adequacy (CAPR), Firm Size(LOGTA) and Interest Rates(IR)

Dependent Variable: Profitability (ROA)

The Results in Table 4.10 gives the analysis of variances in the regression model. These results indicate that the model had an F-ratio of 2.684, $P=0.002<0.05$. This result indicates that the overall regression model had a significant goodness of fit as F-calculated, 3.9755 was greater than critical F at 2.684. This further indicates that use of FX Exposure (V), Capital Adequacy (CAPR), Firm Size(LOGTA) and Interest Rates(IR) would be statistically significant in predicting ROA in oil marketing companies.

4.5.3 Regression Coefficients

Results in table 4.11 below present the test of the statistical significance of the independent variables in the model. This provides the estimates of independent variables, their standard error and the t-ratios.

Table 4.5: Coefficient of Variables

Model	Unstandardized Coefficients	Standard Error	Standardized Coefficients	t Stat	P-value
Constant	5.143	1.164	4.147	1.535	0.012
FX Exposure (V	-2.518	2.280	-3.507	-6.2789	0.042
Capital Adequacy (CAPR	4.326	0.801	1.920	14.861	0.013
Firm Size(LOGTA)	1.398	2.571	1.256	4.619	0.0037
Interest Rates(IR)	-1.454	0.012	0.831	12.187	0.012

Independent Variables: (Constant), FX Exposure (V), Capital Adequacy (CAPR), Firm Size(LOGTA) and Interest Rates(IR)

Dependent Variable: Profitability (ROA)

The resultant regression model take the form of $Y = 5.143 - 2.518X_1 + 4.326X_2 + 1.398X_3 - 1.454X_4 + e$. The study's established that profitability (ROA) of oil marketing companies would be at 5.143 holding FX Exposure (V), Capital Adequacy (CAPR), Firm Size (LOGTA) and Interest Rates (IR) at constant zero. The study found that there foreign exchange exposure had significant negative effects of profitability of oil marketing companies as indicated by regression coefficient $r = -2.518$, $P = 0.042$, $t = -6.2789$.

The regression results indicated that capital adequacy would have a significant positive effects on Oil marketing companies profitability ROA as $r = 4.326$, $P = 0.013$, $t = 14.861$. This clearly indicated that capital adequacy increase the earnings on assets of the oil marketing companies in Kenya.

The study found that firm size (LOGTA) had positive significant effects of oil marketing companies profitability as indicated by regression coefficient $r=4.619$, $P=.0037$, $t=4.619$. This clearly indicates that increase in assets base of oil marketing companies would led to increase in profitability by 4.619

The study found that interest rate had significant and negative effects as indicated $r=-1.454$, $P=0.012$, $t=12.187$. This clearly indicates that high interest increase the cost of supply and operating costs would significantly decrease in profitability (ROA).

4.6 Discussion of the Findings

From the descriptive results, found that oil companies had profitability (ROA) mean of 0.057 with a Max of 0.093 and a Min of 0.035 with a standard deviation of 0.012 and relatively peaked distribution as indicated by KURT of 3.2759 for the year 2010 to 2014. The Foreign Exchange rates (FX Exposure, V) for the oil companies had a mean of 90.54 which could have deviated to a Max of 0.9642 and Min of 0.7523 and a standard deviation of 0.0498 with a relatively flatter distribution as indicated by KURT of -0.5681. This indicates high oil company financial position sensitivity to changes in the exchange rate usually in US Dollar. The oil marketing companies were well capitalized as the companies had Capital Adequacy (CAPR) mean of 0.3537 with a relatively peaked distribution as indicated by positive KURT of 0.5172. This indicated that oil marketing companies were capitalized depending on the company's asset based. The oil companies had a mean firm size (LOGTA) of 0.03 with a Max of 0.21 a Min of 0.01, a stand deviation (SD) of 0.0086 with a relatively peaked distribution as indicated by positive KURT of 2.5692. Thus clearly indicated that some oil marketing companies had a large asset base compared to the rest. The findings on interest rates, the study found that interest rates of the oil marketing companies had a mean of 0.105 which could have deviated to a Max of 0.183 and Min

of 0.085 , a standard deviation (SD) of 0.034 with a with a relatively flatter distribution as indicated by negative KURT of -1.7602

From the Pearson correlation analysis results, found that there existed significance strong and negative correlation between foreign Exchange Exposure and profitability (ROA) as Correlation coefficient $r=-0.542$, $P=0.011<0.05$ while correlation between capital adequacy and profitability (ROA) was significant strong positive as the correlation coefficient $r=0.414$, $P=0.002<0.05$. Also a correlation analysis indicated that existed a significant strong positive correlation between firm size (LOGTA) and profitability (ROA) in oil marketing Companies with correlation coefficient $r=.556$, $P=0.001<0.05$. The study further found that there existed a significant strong negative correlation between interest rate and profitability (ROA) in oil marketing companies as correlation coefficient $r=0.687$, $P=0.001<0.05$.

The resultant regression model took the form of $Y = 5.143 - 2.518X_1 + 4.326X_2 + 1.398X_3 - 1.454X_4 + \epsilon$. The study found that there foreign exchange rate had significant negative effects of profitability of oil marketing companies as indicated by regression coefficient $r=-2.518$, $P=0.042$, $t=-6.2789$. These findings are in agreement with Diffu (2011) who carried out a similar study in the Kenyan airline industry and she found that foreign exchange risk is a major determinant of a farm's profitability.

The study revealed that there existed a significant positive between capital adequacy and Oil marketing companies profitability ROA as $r=4.326$, $P=0.013$, $t=14.861$ indicating that capital adequacy increase the earnings on assets of the oil marketing companies in Kenya. The study found that increase in firm size (LOGTA) would significantly affects positive oil marketing companies profitability as indicated $r=4.619$, $P=.0037$, $t=4.619$. This clearly indicates that increase in assets base of oil

marketing companies would led to increase in profitability by 4.619 The study found also found that , interest rate had significant and negative effects as indicated $r=-1.454$, $P=0.012$, $t=12.187$. This clearly indicates that high interest increase the cost of supply and operating costs would significantly decrease in profitability (ROA).

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the findings from chapter four, conclusions and recommendations of the study based on the objectives of the study. The main objective of this study was to determine effects of foreign exchange exposure on profitability in oil marketing companies in Kenya.

5.2 Summary of the Findings

The study revealed that oil marketing companies made a significant profitability (ROA) with relatively peaked distribution. The companies experience high Foreign Exchange (V) for the oil companies which could have resulted to foreign gain or loss indicating high oil company financial position sensitivity to changes in the exchange rate usually in US Dollar. The oil marketing companies were well capitalized as the companies had high Capital Adequacy (CAPR) mean with a relatively peaked distribution as indicated by positive KURT. This revealed that oil marketing companies were capitalized depending on the company's asset base. The study established that the oil companies had a positive firm size (LOGTA) with a relatively peaked distribution as indicated by positive KURT indicating that some oil marketing companies had a large asset base compared to the rest. The findings revealed that interest rates of the oil marketing companies was high with a relatively flatter distribution.

The study revealed that found that there existed significant strong and negative correlation between foreign Exchange Exposure and profitability (ROA) while correlation between capital adequacy and profitability (ROA) was significant strong

positive. Correlation analysis also revealed that existed a significant strong positive correlation between firm size (LOGTA) and profitability (ROA) in oil marketing Companies while there existed a significant strong negative correlation between interest rate and profitability (ROA).

The study established that there foreign exchange rate had significant negative effects of profitability of oil marketing companies. The high foreign exchange rate would result into devaluation of the local currency leading to foreign loss and reduction in profitability.

The regression results revealed that the capital adequacy had positive effects on Oil marketing company's profitability (ROA) indicating that capital adequacy increase the measure of mitigating foreign risks thereby increasing earnings on assets of the oil marketing companies in Kenya. The study revealed that increase in firm size (LOGTA) would lead to increase in oil marketing companies profitability level as increase in assets base of oil marketing companies would led to increase in return on assets . The study further revealed that high interest rate would have significant and negative effects on Oil Company's profitability hence increase in interest rates increase the operating costs would significantly decrease in profitability (ROA).

5.3 Conclusions

The study concluded that high Foreign Exchange rate (V) affects oil company's profitability due to devaluation of local currency resulting into foreign loss indicating high oil company financial position sensitivity to changes in the exchange rate usually in US Dollar. The study concluded that currency fluctuations affected oil marketing companies' profitability. The study concluded that high foreign exchange rate had

significant negative effects of profitability of oil marketing companies due to devaluation of the local currency leading to foreign loss and reduction in profitability.

The study concluded that capitalized oil marketing companies have high Capital Adequacy (CAPR) mean with a relatively peaked distribution as indicated by positive KURT indicating high capacity of the companies to mitigate foreign exposure risks. The oil marketing companies capital adequacy had positive effects on Oil marketing company's profitability (ROA) indicating that capital adequacy increase the measure of mitigating foreign risks thereby increasing earnings on assets of the oil marketing companies in Kenya.

The study concluded that the oil companies had varying firm size (LOGTA) with a relatively peaked distribution as indicated by positive KURT indicating that some oil marketing companies had a large asset base compared to the rest. The increase in firm size (LOGTA) led to increase in oil marketing companies profitability level as increase in assets base of oil marketing companies led to increase in return on assets.

The study revealed that found that there existed significance strong and negative correlation between foreign Exchange Exposure and profitability (ROA) while correlation between capital adequacy and profitability (ROA) was significant strong positive. Correlation analysis also revealed that existed a significant strong positive correlation between firm size (LOGTA) and profitability (ROA) in oil marketing Companies while there existed a significant strong negative correlation between interest rate and profitability (ROA).

The study concluded that high interest rate would have significant and negative effects on Oil Company's profitability hence increase in interest rates increase the cost of acquiring working capital and significantly decrease in profitability (ROA).

5.4 Recommendations

From the above analysis, it is evident that the oil marketing companies need to manage foreign exchange exposure. The companies should develop a robust foreign exchange exposure management framework. This should be regularly monitored and adjustments made where necessary.

The companies should set up a risk management function within the organization tasked with the responsibility of identifying, measuring managing and monitoring foreign exchange risk. Since the foreign exchange exposure considered in the study was mainly from transactions, the companies can adopt both internal and external risk management measures to avoid fluctuations associated with currency movements. The easiest and cheap option is to go for internal foreign exchange exposure hedging like leading and lagging, netting and prepayment. External hedging techniques may also be adopted for example forward covers which should not be for extended periods of time because that too might be risky with the unpredictable nature of currency movements. The long forward contracts taken by and this is when the company reported the highest foreign exchange losses. The decision to hedge against currency fluctuations is delicate and should be done in an informed manner as it can lead to substantial losses.

Translation foreign exchange risk especially for companies with several subsidiaries can also affect the profits of the firm. In this case both companies were affected by this risk and since it only comes about during reporting by translating subsidiary's currency to home currency short forward covers can be taken and monitored towards financial year end after monitoring the trend of the home currency against the US dollar.

The study recommends that oil marketing firms should sough measures that should hedge the companies against foreign risks due to exposure, partially hedged with respect to total exposure that jointly incorporates the (offsetting) foreign and domestic market effects of changes in exchange rates on the firm value. These effects are additive for companies resulting in significantly positive total exposure and a greater need for hedging. The empirical results are consistent with the predictions of the hypothesis of insignificant exposure for exporters and significantly positive exposure for importers. If hedging is effectively done, it would cushion profit from volatile fluctuations in currencies and thereby have more returns in the companies.

5.5 Limitations of the Study

The main limitation of study was inability to include more oil marketing companies. This study concentrated only on 12 oil companies. The study would have covered oil marketing companies across energy sectors so as to provide a more broad based analysis. However, resource constraints placed this limitation.

There are more variables that may be perceived to affect profitability in oil marketing companies would have been used but the time could not allow due to the data analysis required that is involving and time consuming. Given more time, variables analysis would have been presented in a more detailed manner; however analysis done was sufficient to give a broad conclusion in respect to the study research questions..

The study also faced challenge of time resource, limiting the study from collecting information for the study particularly where the company's management delayed in providing financial reports for extraction of required data.

The study also faced a limitation, whereby the credit managers were found to be uncooperative because of the sensitivity of the information required for the study. The

researcher explained to the management that the information they provided was to be held confidential and was only for academic purpose only.

5.6 Suggestions for Further Study

This study determined the relationship between foreign exchange exposure and the profitability in oil marketing companies. Further research can be carried on how foreign exchange exposure affects the financial performance of oil companies by considering other variables that define financial performance of a firm like growth.

A further study could be carried out to determine effects of foreign exchange rate financial performance for exporting horticulture companies. A study on the relationship between foreign exchange and financial performance of Airlines in Kenya whose objective would be to establish the relationship between foreign exchange rate and financial performance of airline in Kenya

The study focus on foreign exchange exposure and profitability in telecommunication companies in Kenya. A study should also be carried to provide a broad based view on effects of foreign exchange exposure on profitability on companies.

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APPENDICES

APPENDIX 1: Oil Marketing Companies in Kenya

1. Metro Petroleum Limited
2. Tecaflex Limited
3. Mbaraki Bulk Terminal Limited
4. Ranway Traders Limited
5. Quantum Petroleum Limited
6. Samhar Petroleum Products Limited
7. Orix Oil Kenya Limited
8. Keroka Petroleum Limited
9. East African Gasoil Limited
10. Regnol Oil (K) Limited
11. Kenol Limited
12. Kobil Petroleum Limited
13. Olympic Petroleum Limited
14. P.J. Petroleum Equipment Limited
15. Intoil Limited
16. Muloil Limited
17. Libya Oil Kenya Limited
18. Hass Petroleum Kenya Limited
19. Bakri Int. Energy Company Limited
20. Topaz Petroleum Limited
21. Galana Oil Kenya Limited
22. Riva Petroleum Dealers Limited
23. National Oil Corporation of Kenya
24. Oil City Services Limited
25. Jaguar Petroleum Limited
26. Global Petroleum Products Kenya Limited
27. Total Kenya Limited
28. Gulf Energy Limited
29. Ainushamsi Energy Limited
30. Jade Petroleum Limited

31. Alba Petroleum Limited
32. Petro Oil Kenya Limited
33. Kenya Shell Limited
34. Royal Energy (K) Limited
35. Tosha Petroleum (Kenya) Limited
36. MGS International (K) Limited
37. Addax Kenya Limited
38. Banoda Oil Limited
39. Gapco Kenya Limited
40. Fossil Fuels Limited
41. Oilcom Kenya Limited
42. Engen Kenya Limited
43. Trojan International Limited
44. Hashi Energy Limited
45. Kamkis Trading Company Limited
46. Premium Petroleum Company Limited
47. Al leyl Petroleum Limited
48. Fast Energy Limited
49. Essar Petroleum (East Africa) Limited
50. One Petroleum Limited
51. Dalbit Petroleum Limited
52. Millenium Dealers Limited
53. Mafuta Products Limited
54. Kenya Petroleum Refineries (New – Licensed to allow conversion to merchant refinery)
55. Vivo Energy Kenya

Source: Energy Regulation Commission (2014)

Appendix II: Summary of Oil Company Data 2010-2014

Summary of Oil Company Data 2010

Oil Company	Profitability (ROA)	Size- (LOGTA)	CAPITAL Ratio	Interest Rate	Foreign Exchange Rate
Total Oil Kenya	0.02	0.01	8.5%	6.56	78.121
National Oil Company LTD	0.03	0.01	11.8%	6.19	78.131
Harshi Energy	0.004	0.02	12.9%	5.98	78.130
Kobil Petroleum (K)	0.003	0.04	10.5%	5.17	78.021
Engen Kenya Limited	0.001	0.03	13.7%	4.21	78.132
Hass Petroleum	0.04	0.02	8.3%	3.06	78.043
Oilcom Petroleum	0.04	0.01	10.8%	1.63	78.022
Essar Petroleum (K)	0.06	0.01	15.8%	1.83	78.121
Gulf Energy	0.002	0.01	11.4%	2.04	78.121
Shell Kenya	0.06	0.03	13.6%	2.12	78.034
East Africa Gasoil Limited	0.01	0.012	13.5%	2.21	78.321
ViVo Energy Kenya	0.1	0.02	10.9%	2.28	78.120

APPENDIX III: Summary of Oil Company Data 2011

Oil Company	Profitability (ROA)	Size- (LOGTA)	CAPITAL Ratio	Interest Rate	Foreign Exchange Rate
Total Oil Kenya	0.0402	0.0755	10.1%	2.41	85.068
National Oil Company LTD	0.0505	0.0673	11.2%	2.57	85.068
Harshi Energy	0.053	0.0899	12.5%	2.77	85.068
Kobil Petroleum (K)	0.0451	0.0766	12.6%	3.26	85.068
Engen Kenya Limited	0.0351	0.0821	13.8%	5.35	85.068
Hass Petroleum	0.1	0.0908	11.4%	8.95	85.068
Oilcom Petroleum	0.0182	0.0919	15.8%	8.99	85.068
Essar Petroleum (K)	0.041	0.0872	10.8%	9.23	85.068
Gulf Energy	439	0.04	12.4%	11.93	85.068
Shell Kenya	0.05	0.0868	13.6%	14.8	85.068
East Africa Gasoil Limited	0.0482	0.0754	12.4%	16.14	85.068
ViVo Energy Kenya	0.0601	0.0940	10.9%	18.3	85.068

APPENDIX IV: Summary of Oil Company Data 2012

Oil Company	Profitability (ROA)	Size- (LOGTA)	CAPITAL Ratio	Interest Rate	Foreign Exchange Rate
Total Oil Kenya	0.036	0.0546	17.1%	20.56	86.0286
National Oil Company LTD	0.060	0.0869	15.2%	19.807	86.0286
Harshi Energy	0.036	0.0501	18.5%	17.461	86.0286
Kobil Petroleum (K)	0.041	0.0479	14.6%	16.078	86.0286
Engen Kenya Limited	0.047	0.0728	15.8%	11.381	86.0286
Hass Petroleum	0.023	0.0577	18.4%	10.675	86.0286
Oilcom Petroleum	0.029	0.0543	16.8%	12.929	86.0286
Essar Petroleum (K)	0.026	0.0657	15.8%	10.267	86.0286
Gulf Energy	0.032	0.0544	14.4%	7.515	86.0286
Shell Kenya	0.034	0.0321	26.6%	9.945	86.0286
East Africa Gasoil Limited	0.062	0.354	11.4%	9.621	86.0286
ViVo Energy Kenya	0.011	0.0657	12.9%	8.142	86.0286

APPENDIX V: Summary of Oil Company Data 2013

Oil Company	Profitability (ROA)	Size- (LOGTA)	CAPITAL Ratio	Interest Rate	Foreign Exchange Rate
Total Oil Kenya	0.02	0.0695	13.9%	20.56	86.309
National Oil Company LTD	0.04	0.0904	11.8%	19.807	86.309
Harshi Energy	0.05	0.0766	12.2%	17.461	86.309
Kobil Petroleum (K)	0.17	0.0802	13.0%	16.078	86.309
Engen Kenya Limited	0.04	0.0911	11.7%	11.381	86.309
Hass Petroleum	0.05	0.0915	15.3%	10.675	86.309
Oilcom Petroleum	0.04	0.0872	11.4%	12.929	86.309
Essar Petroleum (K)	0.04	0.0881	12.8%	10.267	86.309
Gulf Energy	0.01	0.0871	11.3%	7.515	86.309
Shell Kenya	0.06	0.0102	18.3%	9.945	86.309
East Africa Gasoil Limited	0.03	0.0947	13.6%	9.621	86.309
ViVo Energy Kenya	0.08	0.0695	12.5%	8.142	86.3097

APPENDIX VI: Summary of Oil Company Data, 2014

Oil Company	Profitability (ROA)	Size- (<i>LOGTA</i>)	CAPITAL Ratio	Interest Rate	Foreign Exchange Rate
Total Oil Kenya	0.03	0.0695	12.3%	8.036	0.90708
National Oil Company LTD	0.04	0.0904	13.2%	8.213	0.90708
Harshi Energy	0.12	0.0766	16.7%	10.097	0.90708
Kobil Petroleum (K)	0.05	0.0802	15.9%	10.423	0.90708
Engen Kenya Limited	0.01	0.0911	12.8%	9.376	0.90708
Hass Petroleum	0.02	0.0915	12.4%	5.424	0.90708
Oilcom Petroleum	0.01	0.0872	13.7%	6.863	0.90708
Essar Petroleum (K)	0.01	0.0881	13.1%	10.406	0.90708
Gulf Energy	0.02	0.0871	11.9%	9.139	0.90708
Shell Kenya	0.03	0.0102	12.8%	9.943	0.90708
East Africa Gasoil Limited	0.02	0.0947	13.7%	9.979	0.90708
ViVo Energy Kenya	0.04	0.0695	11.7%	9.405	0.90708