

**THE EFFECTS OF FINANCIAL RISK MANAGEMENT PRACTICES ON  
FINANCIAL PERFORMANCE OF OIL MARKETING COMPANIES IN KENYA**

**BY**

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## DECLARATION

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

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## **DEDICATION**

The research project is dedicated to my lovely wife Maryanne Muigai, My lovely son Jasen Muigai for the moral support offered while I was studying, and for their understanding during my absence as I worked on the study. May Good Lord dearly reward your efforts.

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## **ABSTRACT**

Proper management of risks ensures that the financial earning capacity of a firm is enhanced and guarantees future firm growth. Risk management techniques bring more benefits than raise costs in financial institutions while cost are easily recognized and recorded, benefits are more obscure. The objective of this study was to determine the effects of financial risk management practices on financial performance of oil marketing companies in Kenya. The study adopted a descriptive research design. The target population for this study was the 23 oil marketing firms operating in Kenya as at June, 2014. These oil marketing companies were selected because of their involvement in the role in oil marketing business both at local and international levels. All the 23 targeted oil marketing companies had a representative office in Nairobi which made them more accessible. The study used both primary and secondary data. The collected data was thoroughly examined and checked for completeness and comprehensibility. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. Data was coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. On interest rate risk management, the study concluded that the oil marketing companies in Kenya have interest rate management policy and that they periodically review the interest rate policies. On foreign exchange risks management practices, the study concludes that the oil marketing firms in Kenya have documented foreign exchange rate management policy and that they maintain foreign currency denominated accounts. On trading liquidity risk management practices, the study concludes that oil marketing firms in Kenya have a well documented liquidity risk management policy and that the policy is reviewed frequently as need arises. This study therefore recommends that the management of the firms come up with management policies that will address the variations in interest rates at different times. The study also established that the firms have internal controls and independent audits. This study recommends that the firms also conduct audits by external auditors. This study therefore recommends that in order to deal with the fluctuating international oil prices, the firms need to increase the use of financial derivatives in a bid to hedge their risks.

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## **LIST OF ABBREVIATIONS**

ANOVA	Analysis of Variance
APT	Arbitrage pricing theory
CAPM	Capital Asset Pricing Model
CBK	Central Bank of Kenya
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KPRL	Kenya Petroleum Refineries Limited
KRA	Kenya Revenue Authority
MFIs	Microfinance Institutions
MNCs'	Multinational Corporations
MPT	Modern Portfolio Theory
NIST	National Institute of Science and Technology
OTS	Open Tender System
PPP	Purchasing power parity
ROA	Return on Asset
ROE	Return on Equity
SMEs	Small Medium Enterprises
SPSS	Statistical Package for Social Sciences
TOR	Tema Oil Refinery
USA	United States of America
VaR	Value at Risk

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Risk in financial terms is usually defined as the probability that the actual return may differ from the expected return, Howells & Bain, (1999). In the financial system, there are at least three broad categories of risks, financial risk, business risk and operational risk. Oil marketing companies are faced with critical challenges of finding new and better ways to increase top-line revenues, maintaining necessary capital ratios, improving margins, strengthening balance sheets and enhancing efficiencies within the organization. These companies therefore employ risk management practices whose objective is not to prohibit or prevent risk taking activity, but to ensure that the risks are consciously taken with full knowledge, clear purpose and understanding so that it can be measured and mitigated. According to Maina (2007), oil marketing firms face more risks than other companies due to their dependence on exchange rates, local and international trades; and the only way to manage these risks is to appreciate their root determinants. Manfredo et al (2003) also noted that since oil marketing firms themselves tend to face more sources of both business and financial risks, it is imperative to identify the causes of these risks as oil marketing firms operate under pooling arrangements and in a wide geographic area which maximizes their level of diversification.

Financial risk or the risk of losing money is real and fundamental in the modern society; unlike for individual loss of income, for corporations, financial risk can affect the value of business investments and financial assets (shah, 2004). Risk is an old concept associated with uncertainty. In the course of running a business, managers are confronted

with many challenges, and in focus are decisions made in regard to risks. Some risks are associated with the underlying nature of the business and normally deal with issues like uncertainty of future sales and are called business risks. Another class of risk, which is the focus of this study, is the financial risks, which deal with the uncertainty of such factors as interest rates, exchange rates, stock prices and commodity prices (Li, 2003).

### **1.1.1 Financial Risk Management**

Financial risk refers to the danger likely to be caused by an event or a loss that could impair the value of member's savings or substantially affect assets, hence its delivery and earning capacity (Maina, 2007). Financial risk management is a process in place for a firm to mitigate adverse changes in the business operating environment such as foreign currency values, commodity prices or interest rates (Crabb, 2003). Anderson and Terp (2006) define risk management as a process that seeks to eliminate, reduce and control risks, enhance benefits, and avoid detriments from speculative exposures. The objective of risk management is to maximize the potential of success and minimize the probability of future losses because risk that becomes problematic can negatively affect cost, time, quality and system performance. Financial risk is the possibility that a business will not have adequate liquidity to meet its ongoing obligations. Financial obligations include debt repayment, payroll requirements, dividend payments, government licenses and taxes (Mowbray, 1995).

The Committee of Sponsoring Organizations of the Treadway Commission (Committee of Sponsoring Organizations, 2004) defines risk management as a process, effected by an

entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives. Risk management is the process to manage the potential risks by identifying, analyzing and addressing them. The process can help to reduce the negative impact and emerging opportunities. The outcome may help to mitigate the likelihood of risk occurring and the negative impact when it happens (Partnerships, 2005).

### **1.1.2 Financial Performance**

Financial performance can be defined as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Mills, 2008). Parrenas (2005), defines performance measurement as a way of ensuring that resources available are used in the most efficient and effective way. The essence is to provide for the organization the maximum return on the capital employed in the business. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. The performance measurement concept indicates that employees can increase the value of the firm by; increasing the size of a firm's future cash flows, by accelerating the receipt of those cash flows, or by making them more certain or less risky (Cadbury, 1992).

There are many different ways to measure financial performance, but all measures should be taken in aggregation. Some of the indicators of financial performance are return on equity liquidity ratios, asset management ratios, profitability ratios, leverage ratios and

market value ratios. Carreta and Farina (2010), argue that use of financial performance could still be justified on the grounds that it reflects what managers actually consider to be financial performance and, even if this is a mixture of various indicators like accounting profits, productivity, and cash flow. Financial performance is determined by the following indicators; profit or value added; sales, fees, budget; costs or expenditure and stock market indicators (e.g. share price) and autonomy. Proxies for the financial performance of companies also include the accounting measure of performance; return on equity (ROE) and return on asset (ROA) as identified by First Rand Banking Group (2006).

### **1.1.3 Financial Risk Management Practices and Financial Performance**

Companies around the world have made substantial investments in personnel, processes and technology to help control business risk (Mills, 2008). Historically, these risk investments have focused primarily on financial controls and regulatory compliance. Too many institutions took on excessive risk with too little regard for reasonable, realistic long-term performance expectations. The debacle is focusing minds on more robust approaches to financial risk management, with a new imperative to keep pace with financial innovation, performance incentives, and business goals. Reforms will stretch financial risk management across the organization and involve systematically linking financial risk and corporate performance management, leading to an informed view of reward (Parker and Nielsen, 2009).

According to Verrecchia (2001), Companies that keep their proverbial eyes on the ball on improving performance, both financially and operationally will emerge from these trying times better positioned to take advantage of opportunities. However, conducting business

as usual is in itself a risky proposition. Risk management techniques bring more benefits than raise costs in financial institutions while cost are easily recognized and recorded, benefits are more obscure (Fatemi and Glaum, 2000). Fatemi and Glaum (2000), further argue that firms should not manage risks solely for the tax reasons, since it is too expensive. Benefits could only be realized in countries with progressive corporate taxes and allowed carry forwards. Financial risk management practices to managing risk no longer suffice in an increasingly volatile, interconnected business environment. Enhanced understanding of how risk affects financial performance may decrease the probability of insolvency and provide greater stability to a depository institution. Risk management is a key aspect of a supervisory committee's role, and fair value measurements can have a significant effect on areas of risk management, including incentive compensation arrangements, liquidity risk, credit risk, debt covenants, and asset concentration levels (Gestel and Baesen 2009).

#### **1.1.4 Oil Marketing Companies in Kenya**

The oil industry is usually divided into three major components: upstream, midstream and downstream. Midstream operations are usually included in the downstream category. The first part covers the exploration, production and transportation of crude oil and gas to the point of transformation into final products (mainly refineries) (Ministry of Energy, 2014). The downstream activities deal with the processing of crude oil in refineries, the distribution and the marketing activities of all the oil derived products, Raed et al. (2006). 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. 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, Nairobi Business Daily (2010).

Kenya Institute for Public Policy Research and Analysis (KIPPRA) (2011) indicated that the oil marketing sector in Kenya has had a lot of challenges. The situation in Kenyan oil industry and its environment has been worsened by the introduction of stringent tax regimes by the Kenya Revenue Authority (KRA). This requires upfront prepayment of 100% taxes on oil imports. 70% of the fuel sold locally used to be refined by the Kenya Petroleum Refineries Limited (KPRL) while 30% was imported as fully refined until the closure of KPRL. Currently the country only imports refined oil products on which 100% duty payment is levied upfront. The government introduced the Open Tender System (OTS), which means that all the crude oil imported is supplied by one supplier to minimize costs and level the retail prices. Oil companies are then invited to bid for the delivery and the company with the lowest bid automatically wins the tender to import the crude and have it discharged into KPRL tanks (Ministry of Energy, 2014).

## **1.2 Research Problem**

Proper management of risks ensures that the financial earning capacity of a firm is enhanced and guarantees future firm growth. All business activities involve risks thus there is no business which can be undertaken without assuming risks. Returns from investment are basically a compensation for the risk assumed by an organization. Strong financial risk management practices can help oil marketing firms reduce their exposure to financial risks, and enhance their ability to compete in the market with other well established institutions (Iqbal and Mirakhor, 2007). In relating risk management practices



and financial performance, several studies have documented the impact in financial institutions. Schroeck (2002) and Nocco and Stulz (2006) stress the importance of good risks management practices to maximize firms' value. In particular, Nocco and Stulz (2006) suggests that effective enterprise risk management (ERM) have a long-run competitive advantage to the firm (or banks) compared to those that manage and monitor risks individually. It is, therefore suggested that companies should manage risks strategically by viewing all the risks together within a coordinated manner. Prudent risk management practices reduce the volatility in banks' financial performance, namely operating income, earnings, firm's market value, share return and return on equity. Schroeck (2002) proposes that ensuring best practices through prudent risk management result in increased earnings.

Oil marketing companies in Kenya rely on imported fuel for satisfying their customer needs. The whole business of international trade involves several risks ranging from foreign exchange rate fluctuations to highly dynamic international crude oil prices(PIEA, 2014). The whole business from procurement to sales at the pump station involves several financial risks that call for managing in order to ensure higher financial performance. High fluctuations in international oil prices and frequent review of oil prices on the local market has meant that oil companies keenly manage their financial exposures closely to ensure stability in financial performance (PIEA, 2014).

Adolphus (2008), studied liquidity management practices of selected Nigerian banks by evaluating, the relevance of treasury objectives in bank portfolio management, causes of asset-liability mismatch in banks, causes of liquidity crisis, incidence of treasury risk, adequacy or appropriateness of liquidity risk management techniques, liquidity planning

practices of Nigerian banks, and extent of liquidity exposure in banks. The rampant reported cases of liquidity crisis and financial distress in the Nigerian banking industry have necessitated a study on how to manage the bank's liquidity exposure.

Several studies on risk management have been done in Kenya. Kabiru (2002) did a study on the relationship between credit risk assessment practice and the level of non-performing loans of Kenyan banks. Yusuf (2005) conducted a survey of operational risk management practices by banks in Kenya; Songole (2011) did a study on the relationship between credit risk management practices and return on investment of Saccos in Kenya, Ongechi (2009) also analyzed the risk management strategies used by Fina Bank Limited in lending to SMEs. These studies have concentrated on risk management among financial institutions which presents a different perspective from that in oil marketing companies because of their international trading links. This study therefore sought to answer one research question: what are the effects of financial risk management practices on financial performance of oil marketing companies in Kenya?

### **1.3 Research Objective**

To determine the effects of financial risk management practices on financial performance of oil marketing companies in Kenya.

### **1.4 Value of the Study**

It was anticipated that the findings of this study would be important to;

The management and directors in oil marketing firms as it would provide an insight into the various approaches towards financial risk management practices, how effectively financial risk management technique are in mitigating risks and influence financial

performance.

It is hoped that the findings of this study would be important to the government in the developing policy papers, policy making regarding taxation and other regulatory requirements of oil marketing firms in the country. The policy maker would gain insight on how well to incorporate the sector effectively to ensure effective mitigation of risks for the well functioning of the energy sector in Kenya.

It is also hoped that the findings of this study would be beneficial for the academicians as they would be furnished with relevant information regarding impact of financial risk management practices on financial performance in oil marketing firms. The study would contribute to the general body of knowledge and form a basis for further research

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the literature on the effects of financial risk management practices on financial performance of oil marketing companies in Kenya. Specifically, the chapter addresses the theoretical review guiding the study, financial risk measures, empirical literature and summary of the literature review.

#### **2.2 Theoretical Review**

The theoretical review section tries to uncover the effects of financial risk management practices on financial performance of oil marketing companies in Kenya. The section's main purpose is to establish a solid foundation for the empirical study, clarifying the underlying problems of the analysis. The study is founded on two theories including Modern Portfolio Theory and Rational expectations Theory.

##### **2.2.1 Modern Portfolio Theory**

Modern Portfolio Theory (MPT) proposes how rational investors should use diversification in order to optimize their portfolios. It also discusses how a risky asset should be priced. This does not mean that the early economists ignored financial markets. Fisher (1930) had already outlined the basic functions of credit markets for economic activity, specifically as a way of allocating resources over time and had recognized the importance of risk in the process. In developing their theories of money, John Maynard

Keynes (1936), Hicks (1939), Kaldor (1939) and Marschak (1938) had already conceived of portfolio selection theory in which uncertainty played an important role.

In later years, Holbrook Working (1962) would dispute this, arguing that there was, in fact, no difference between the motivations of hedgers and speculators. This led to an early empirical race Houthakker (1969) finding evidence in favor of normal backwardation and Telser (1958, 1981) finding evidence against it. Williams (1938) was among the first to challenge the casino view economists held of financial markets and questions of asset pricing. He argued that asset prices of financial assets reflected the intrinsic value of an asset, which can be measured by the discounted stream of future expected dividends from the asset. This fundamentalist notion fit well with Fisher's (1930) theory, and the value-investing approach of practitioners such as Benjamin Graham.

Markowitz (1959) realized that as the fundamentalist notion relied on expectations of the future, then the element of risk must come into play and thus profitable use could be made of the newly developed expected utility theory of von Neumann and Morgenstern (1944). Markowitz formulated the theory of optimal portfolio selection in the context of trade-offs between risk and return, focusing on the idea of portfolio diversification as a method of reducing risk -- and thus began what has become known as Modern Portfolio Theory or simply MPT.

As noted, the idea of an optimal portfolio allocation had already been considered by Keynes, Hicks and Kaldor in their theories of money, and thus it was a logical step for Tobin (1958) to add money to Markowitz's story and thus obtain the famous two-fund

separation theorem. Effectively, Tobin argued that agents would diversify their savings between a risk-free asset (money) and a single portfolio of risky assets (which would be the same for everyone). Different attitudes towards risk, Tobin contended, would merely result in different combinations of money and that unique portfolio of risky assets.

### **2.2.2 Rational Expectations Theory**

Rational expectations is a hypothesis in economics which states that agents' predictions of the future value of economically relevant variables are not systematically wrong in that all errors are random. Equivalently, this is to say that agents' expectations equal true statistical expected values. An alternative formulation is that rational expectations are model-consistent expectations, in that the agents inside the model assume the model's predictions are valid. The rational expectations assumption is used in many contemporary macroeconomic models, game theory and other applications of rational choice theory (Snowdon, Vane & Wynarczyk, 1994).

The rational expectations hypothesis has been used to support some radical conclusions about economic policymaking. An example is the Policy Ineffectiveness Proposition developed by Thomas Sargent and Neil Wallace. If the Federal Reserve attempts to lower unemployment through expansionary monetary policy economic agents will anticipate the effects of the change of policy and raise their expectations of future inflation accordingly. This in turn will counteract the expansionary effect of the increased money supply. All that the government can do is raise the inflation rate, not employment. This is a distinctly New Classical outcome. During the 1970s rational expectations appeared to have made previous macroeconomic theory largely obsolete, which culminated with the Lucas critique. However, rational expectations theory has been widely adopted

throughout modern macroeconomics as a modelling assumption thanks to the work of New Keynesians such as Stanley Fischer (Snowdon, Vane & Wyneczyk, 1994).

Rational expectations theory is the basis for the efficient market hypothesis (efficient market theory). If a security's price does not reflect all the information about it, then there exist "unexploited profit opportunities": someone can buy (or sell) the security to make a profit, thus driving the price toward equilibrium. In the strongest versions of these theories, where all profit opportunities have been exploited, all prices in financial markets are correct and reflect market fundamentals (such as future streams of profits and dividends). Each financial investment is as good as any other, while a security's price reflects all information about its intrinsic value (Snowdon, Vane & Wyneczyk, 1994). Financial risks exist because of the unsymmetrical information in the market.

### **2.3 Determinants of Financial Performance**

Performance of firms is of vital importance for investors, stakeholders and economy at large because a company's financial performance is directly influenced by its market position. Profitability can be decomposed into its main components: net turnover and net profit margin. Ross et al. (1996) argues that both can influence the profitability of a company one time. If a high turnover means better use of assets owned by the company and therefore better efficiency, a higher profit margin means that the entity has substantial market power. Risk and growth are two other important factors influencing a firm's financial performance. Since market value is conditioned by the company's results, the level of risk exposure can cause changes in its market value. Economic growth is another component that helps to achieve a better position on the financial markets, because market value also takes into consideration expected future profits.

The size of the company can have a positive effect on financial performance because larger firms can use this advantage to get some financial benefits in business relations. Large companies have easier access to the most important factors of production, including human resources. Also, large organizations often get cheaper funding. Total assets are considered to positively influence the company's financial performance, assets greater meaning less risk. A large volume of sales (turnover) is not necessarily correlated with improved performance. Studies that have examined the relationship between turnover and corporate performance were inconclusive.

### **2.3.1 Firm characteristics and policies**

Certain firm characteristics are associated with high performance of the firm. These include size (Love and Rachinsky, 2007), growth rate, dividends, liquidity (Gurbuz et al., 2010) and sales (Forbes, 2002). The forms that have better growth rate can afford better machinery, and then gradually the assets and size of the firm will increase. Large firms attract better managers and workers who in turn contribute to the performance of the firm. So, both firm and its people support each other's goals (Succuro).

Although many studies have been conducted on the individual determinants of firm but a very few have modeled all the factors. There is a much larger gap for the developing economies (Maher and Andersson, 1999). A few studies have been conducted in Pakistan on firm performance determinants; one was conducted in 2010 on the effects of capital financing patterns on firm performance. Another study was conducted by Yasser et al. (2011) which investigates the effect of board characteristics on firm performance. Wahla et al. (2012) analyzed the impact of ownership structure on firm performance. There is no



study up till now to have modeled various determinants of firm performance for Pakistani firms, this study attempts to fill this gap of empirical research.

### **2.3.2 Economic condition**

Economic condition of the country can affect a firm's performance on multiple fronts. Cost of borrowings can negatively influence the firm's capability to generate finances and invest in projects (Ntim, 2009). Prices of utilities, high costs associated with plant and machinery due to either deterioration of currency or import costs, high inflation rate and low income level of people can decrease the demand for industrial goods and hence negatively impact the firm's performance (Forbes, 2002)

### **2.4 Empirical Review**

Several scholars and researchers have reviewed the concept of risk management and financial performance of organizations. Lepus (2004) in a survey of the best practices in strategic credit risk management in USA, observes that, sixty three (63%) per cent out of the eight banks interviewed employed Monte Carlo methods of credit risk measurement, while sixty three (63%) per cent, fifty (50%) and thirteen (13) per employed VaR, and expected and unexpected models of measuring credit risk. Despite innovation in the financial services sector, credit risk is still the major single cause of bank failures. The reason is that more than 80% of a bank's balance sheet generally relates to this aspect of risk management (Greuninget.al 1999) Because of the potentially dire effects of credit risk, it is important to perform a comprehensive evaluation of a bank's capacity to assess, administer, supervise, control, enforce and recover loans, advances, guarantees, and other credit instruments.

For instance, Menon (2005) examined foreign currency risk management practices in U.S. multinationals. This study examined U.S. MNCs' foreign currency risk management practices from 1995 through 2000. The primary variable being investigated was the notional amounts of foreign exchange derivatives used by MNCs. In addition, influences if any, from various industry memberships and passage of time were examined. The companies selected were chosen from the Forbes Global 2000 list. In order to be included in the sample, the company should have disclosed information about its use of currency derivatives in its annual report. Further, companies operating in the petroleum refining or related industries were excluded. Firm-specific data used in the analysis, such as total assets, notional amounts of FXDs and foreign sales, was obtained from company annual reports. The study confirmed that the use of FXD among U.S. MNCs is positively correlated with their level of foreign currency exposure. As firms face higher levels of foreign currency exposure, they use more FXD to hedge against the exposure.

Kabiru (2010) examined the effect of risk management practices on the financial performance of commercial banks in Kenya. The objectives of this study were to analyze the risk management practices undertaken by Commercial Banks in Kenya and to determine and assess the effect of these risk management practices on their financial performance. The risks facing financial institutions were mainly classified into; strategic, operational, credit and market risks. In managing these risks, the risk management approach adopted by the owners and/or management was influenced by the organizational culture and support, whether or not risk management was integrated in the setting of organizational objectives, whether there was a documented risk management policy or framework, how the risk identification process is conducted, the risk analysis

process, evaluation and treatment of risk; risk monitoring and review; and last but not least ensuring that there is effective risk management.

This has been influenced to a large extent by guidelines put forward by the Central Bank of Kenya and also the nature of the banking industry. In most cases banks had adopted a proactive and enterprise wide approach to their risk management practices by have a risk department with a manager, and had a documented risk management policy which was fairly well communicated through out all levels of the organization from the Board to Staff. From the research conducted it was evident that risk management and the related practices are considered significantly important to the operations and financial performance of these commercial banking institutions. The study also found that some risk management practices did not have significant effect on financial performance more than others for example: the existence of a risk management policy and the integration of risk management in setting of organizational objectives were considered to be the key risk management practices that had a direct effect on financial performance. This meant that although there were other determinants of performance not included in the study, the banks could improve their performance by focusing on developing strong risk management policies and integrating risk management in the process of setting achievable organizational objectives.

Ogol (2011) did study liquidity risk management practices in micro-finance institutions in Kenya. Emphasis was on; understanding the process of liquidity risk identification by MFIs, the extent to which MFIs were classified, monitor liquidity risks, liquidity risk exposure of MFIs and to identify the various practices that the MFIs adopted in managing the liquidity risks. Primary data was collected through questionnaires distributed to MFIs

operating in Nairobi City. Results indicated that MFIs had in place liquidity risk management practices. This was the case when it involved understanding the liquidity risk, identification, analysis/assessment and monitoring. The population of interest in this study consisted of all 41 MFIs listed by the CBK 2002 to which the questionnaires were sent. A total of 30 questionnaires; representing 71% were administered and analyzed.

Oretha (2012) examined the relationship between credit risk management practices and financial performance of commercial banks in Liberia. Quantitative research design was employed under the quantitative research design survey method. The data were collected by cross sectional survey method. The conclusion of this study shows a positive relationship between the credit risk management practices and financial performance. Commercial banks during the pre-liberalization period were not effective in managing their credit risk in contrast to the post-liberalization period. Variations in the credit policies by seven of the nine commercial banks reflected monetary and fiscal policy actions, where expansionary fiscal policy partly increased inflationary pressure and the monetary authority. During the post-liberalization period, most banks used the services of consultants to formulate their credit risk management policies which reduced the risk posed by defaulting on loans.

Osabutey, Obro- Adibo, Agbodohu and Kumi (2013) did an analysis of risk management practices in the oil and gas industry in Ghana using a case study of Tema Oil Refinery (Tor). The study identified risks confronting Tema Oil Refinery (TOR) as instability in global oil prices, depreciation of the cedi against major currencies, health and safety, political interference, environmental pollution, brain drain, shortage of crude oil, huge debts as a result of subsidizing of petroleum products by government and default on the

part of oil marketing companies to pay for products and high operational risks .Other challenges as apathy on the part of staff to abide by safety rules was identified. TOR incorporates risk management in their strategic plan and have operations and Audit risk department but have been battling with effective implementation. Made recommendations to government and management of TOR on how to overcome the problems in implementing risk management in order to achieve the goals of the only refinery in Ghana.

Mwangi and Muriuki (2013) examined Credit Risk Management Practices by Oil Companies in Kenya. The study had two objectives including: establishing the practices applied by oil companies in credit management and determining factors affecting the choice of credit management approach within the oil industry. The study applied a census study to facilitate comparison of data from different respondents. The target population was all the oil firms in Kenya which were 26 operational oil marketers and since they were few no sampling was undertaken. Questionnaires consisting of open-ended, structured and unstructured questions were administered to obtain primary data. Secondary data from in-house credit management publications, reports and brochures was used to supplement primary data. On analyzing the data collected the study concluded that the oil industry just like any industry dealing with credit was affected by adverse effects of credit risks. The study also concluded that it was critical to analyze all the prevailing factors and conditions in order to design appropriate credit risk management processes so that credit risk exposure can be minimized to an optimal level.

## **2.5 Summary of the Literature Review**

This chapter has reviewed empirical literature by other scholars and researchers. From the review, Lepus (2004) in a survey of the best practices in strategic credit risk management in USA, observes that, sixty three (63%) per cent out of the eight banks interviewed employed Monte Carlo methods of credit risk measurement, while sixty three (63%) per cent, fifty (50%) and thirteen (13) per employed VaR, and expected and unexpected models of measuring credit risk. This study was conducted in USA which presents different economic conditions from those prevailing in Kenya. Menon (2005) examined foreign currency risk management practices in U.S. multinationals. Menon's study only reviewed foreign currency risk management practices and from a United States perspective. Kabiru (2010) examined the effect of risk management practices on the financial performance of commercial banks in Kenya.

Kabiru (2010) reviewed risk management practices from the perspective of commercial banks which have different operating environment from oil marketing commercial Banks. Ogol (2011) did study liquidity risk management practices in micro-finance institutions in Kenya. Ogol only reviewed liquidity risk management practices and not all financial risks management practices. Oretha (2012) examined the relationship between credit risk management practices and financial performance of commercial banks in Liberia. Osabutey, Obro- Adibo, Agbodohu and Kumi (2013) did an analysis of risk management practices in the oil and gas industry in Ghana using a case study of Tema Oil Refinery (Tor). Mwangi and Muriuki (2013) examined Credit Risk Management Practices by Oil Companies in Kenya. It can be noted that a majority of the studies that have reviewed risk management have reviewed it in the context of commercial banks which present a

totally different perspective from oil marketing companies. For those that have been presented on oil marketing companies, they only considered credit risk management. This study therefore seeks to investigate oil sector specific financial risk management practices and how they have affected the financial performance of oil marketing firms.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter discussed the various stages that were followed in completing the study. It specifically covers the research design, population, data collection instruments, and data analysis.

#### **3.1 Research design**

The study adopted a descriptive research design. According to Cooper and Schindler (2003), a descriptive study is concerned with finding out the what, where and how of a phenomenon. According to Chandran (2004) descriptive studies portray an accurate profile of persons, events or situations, describing the existing conditions and attitudes through observation and interpretation techniques. It allows one to collect quantitative data which can be analyzed quantitatively using descriptive and inferential statistics (Saunders, Lewis and Thornhill, 2003). A descriptive approach in data collection is able to collect accurate data on and provide a clear picture of the phenomenon under study (Mouton and Marais, 1992).

Descriptive research is the investigation in which quality data is collected and analysed in order to describe the specific phenomenon in its current trends, current events and linkages between different factors at the current time. Descriptive research design was chosen because it enabled the researcher to generalise the findings to a larger population. This study therefore was able to generalise the findings to all the oil marketing firms in Kenya.



### **3.2 Population and sample**

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, events, group of things or households that are being investigated. The target population for this study was the 23 oil marketing firms operating in Kenya as at June, 2014. These oil marketing companies were selected because of their involvement in the role in oil marketing business both at local and international levels. All the 23 targeted oil marketing companies had a representative office in Nairobi which made them more accessible. Due to ease of accessibility to these firms and their small number, this study included all the institutions in the study hence a census thus no sampling.

### **3.3 Data Collection**

The study used both primary and secondary data. The data collected was on the measures put in place by the oil marketing firms to manage financial risks and the extent to which these measures affect financial performance. Primary data was collected using a semi structure questionnaire. The questionnaire was designed to include open and closed ended questions. Open ended question were used to elicit more thinking from the respondents while closed ended questions were used to standardize responses and save on respondents' time taken to fill. As much as possible, a 5-point likert scale was used to determine the relationship between financial risk management practices and financial performance of oil marketing firms in Kenya.

The closed ended questions enabled the researcher to collect quantitative data while open-ended questions enabled the researcher to collect qualitative data. The questionnaire

was divided into two sections. Section one was concerned with the general information about respondents and the oil marketing firms. Section two dealt with the effects of financial risk management practices and financial performance of oil marketing firms in Kenya. Secondary data was collected by use of desk search techniques from published reports and other documents at the oil marketing firms and petroleum Institute of East Africa. Secondary data included the banks publications, journals, and periodicals.

### **3.3.1 Validity and Reliability**

Validity of the instrument measures the extent to which it measures what it is supposed to measure. The content of validity of the data collection instruments was determined through discussing the stated questions in the instruments with the managers of the oil marketing three firms selected for the pilot.

Reliability refers to the consistence, stability, or dependability of the data. Whenever an investigator measures a variable, he or she wants to be sure that the measurement provides dependable and consistent results (Cooper & Schindler, 2003). A reliable measurement is one that if repeated a second time will give the same results as it did the first time. To measure the reliability of the data collection instruments an internal consistency technique using Cronbach's alpha will be applied to the gathered data (Mugenda & Mugenda, 2003). Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability and an alpha coefficient of 0.60 or higher indicates that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population (Zinbarg, 2005).

### **3.4 Data Analysis**

The collected data was thoroughly examined and checked for completeness and comprehensibility. The data was then summarized, coded and tabulated. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. Data was coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. SPSS was used to perform the analysis as it aided in organizing and summarizing the data by the use of descriptive statistics such as mean and standard deviation.

Data presentation was done by the use of pie charts, Frequency tables and graphs and percentages. This ensured that the gathered information is clearly understood.

#### **3.4.1 Model Specification**

In order to determine the effects of financial risk management practices on financial performance of oil marketing companies in Kenya, the researcher conducted a regression analysis using the following regression model

The regression equation is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \alpha$$

Where Y is the dependent variable (financial performance of oil marketing firms),  $\beta_0$  is the regression coefficient,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  are the slopes of the regression equation and the independent variables are;

$$Y = \text{financial performance of oil marketing firms (ROE)}$$

$X_1$  = Interest rate risk management practices (Extent to which the Practices Used)

$X_2$  = Foreign exchange risks management practices (Extent to which the Practices Used)

$X_3$  = Trading liquidity risk management practices (Extent to which the Practices Used) and

$\beta_0$  = Constant

$\alpha$  = error term (normally distributed about a mean of 0 and for purpose of computation, the  $\alpha$  is assumed to be 0). The equation will be solved by the use of statistical model where SPSS will be applied.

### **3.4.2 Test of Significance**

In order to test the significance of the model in measuring the effects of financial risk management practices on financial performance of oil marketing companies in Kenya, this study conducted an Analysis of Variance (ANOVA). On extracting the ANOVA statistics, the researcher looked at the significance value (P-Value). The study was tested at 95% confidence level and 5% significant level. If the significance P- Value found was less than the critical value ( $\alpha$ ) set 2.4, then the conclusion was that the model is significant in explaining the relationship.

## CHAPTER FOUR

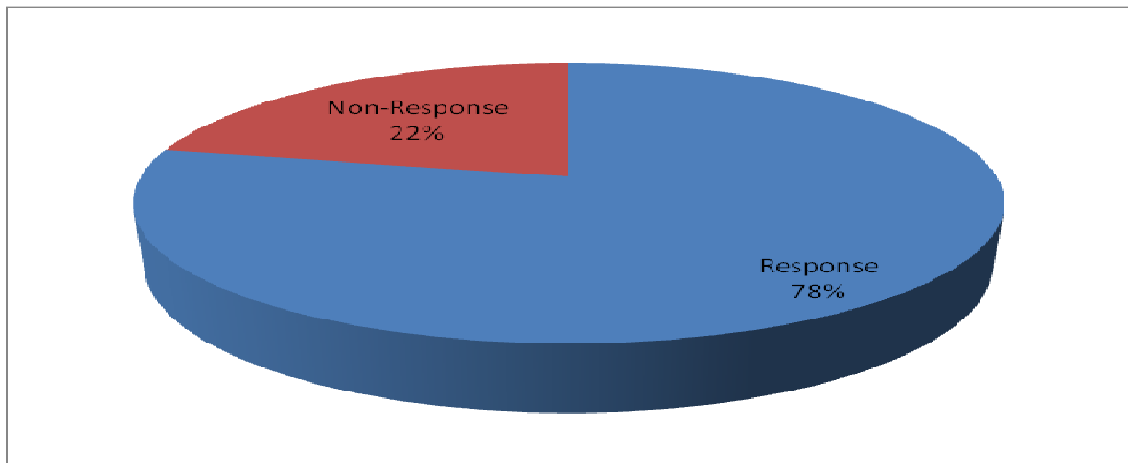
### DATA ANALYSIS AND RESULTS

#### 4.1 Introduction

This chapter presents research findings, analysis of the data and interpretation of the data collected from the respondents. It presents findings on the effects of financial risk management practices on financial performance of oil marketing companies in Kenya.

#### 4.2 Response Rate

The study targeted the 23 oil marketing firms operating in Kenya as at June, 2014. Of the targeted 23 firms, only 18 filled out the questionnaires and returned them. This translates to a response rate of 78%. According to Mugenda and Mugenda (2003), for a responses rate for rate to be statistically significant for analysis, it should be at least 50%.



**Figure 4.1: Response Rate**

#### 4.2 Interest Rate Risk Management Practices

The respondents were asked to rate the extent to which they agreed on the following statements on interest rate risk management practices. The findings are shown in table 4.1

**Table 4.1: Interest Rate Risk Management Practices**

TQM Practice	Mean	Std. Dev
The Company has a documented interest rate management policy	4.023	0.002
By matching the source of finance with the cash flows of the Company	3.985	0.231
By negotiating reasonable credit period with its suppliers	4.613	0.125
By purchasing on credit instead of applying for loans and overdrafts	3.423	0.145
The Company has an appropriate board and senior management oversight	3.892	0.351
The company has developed adequate interest rate risk management policies and procedures	4.521	0.632
The Company has elaborate and adequate measures of interest risk	4.321	0.125
The Company adequately monitors and control of interest rate risks	3.963	0.325
The company has comprehensive internal controls and independent audits.	4.011	0.452
Defining clearly the authorized instruments, hedging strategies and position taking opportunities	3.987	0.162
Ensuring that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest	3.452	0.662
Periodically reviewing the interest rate policies	4.211	0.789

The respondents agreed that the Company has a documented interest rate management policy to a great extent with a mean of 4.023 and a deviation of 0.002. Crabb (2003) highlighted that interest rates play an important role in the operating environment of a business and that financial risk management provides an avenue for firms to mitigate adverse changes in the business operating environment. On whether there firm matched the source of finance with the cash flows of the Company, the respondents agreed with a mean of 3.985 and a deviation of 0.231. Asked whether the firms' negotiated reasonable credit period with its suppliers, the respondents strongly agreed with a mean of 4.613 and a deviation of 0.125. Mowbray (1995) concluded that one of the financial obligations of

any organization includes debt repayment and thus firms should ensure the agreement they have with the suppliers gives them adequate time to make payments. Asked whether the firms purchased on credit instead of applying for loans and overdrafts, the respondents were neutral with a mean of 3.423 and a deviation of 0.145. Gestel and Baesen (2009) concluded that risk management practices enhance understanding of how risk affects financial performance of the firm and thus firms needs to include incentive that will reduce credit risk of the firm. The respondents agreed that the company has an appropriate board and senior management oversight with a mean of 3.892 and a deviation of 0.351.

On whether the company has developed adequate interest rate risk management policies and procedures, the respondents agreed with a mean of 4.521 and a deviation of 0.632. Risk management is a key aspect of a supervisory committee's role, and fair value measurements can have a significant effect on areas of risk management, including incentive compensation arrangements, liquidity risk, credit risk, debt covenants, and asset concentration levels (Gestel and Baesen 2009). The respondents also agreed with a mean of 4.321 and a deviation of 0.125, that the company has elaborate and adequate measures of interest risk. On whether the Company adequately monitors and control of interest rate risks, the respondents agreed with a mean of 3.963 and a deviation of 0.325. Asked whether the company has comprehensive internal controls and independent audits the respondents agreed with a mean of 4.011 and a deviation of 0.452. In their analysis of risk management practices in the oil and gas industry in Ghana using a case study of Tema Oil Refinery (Tor), Osabutey, Obro- Adibo, Agbodohu and Kumi (2013) established that TOR incorporates risk management in their strategic plan and have

operations and Audit risk department but have been battling with effective implementation. The respondents agreed that authorized instruments, hedging strategies and position taking opportunities were defined clearly in the organization with a mean of 3.987 and a deviation of 0.162.

On ensuring that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest, the respondents were neutral with a mean of 3.452 and a deviation of 0.662. On whether the firms periodically review the interest rate policies the respondents agreed with a mean of 4.211 and a deviation of 0.789. Love and Rachinsky (2007) stated that certain firm policies are associated with high performance of the firm. They concluded that policies in management supervisory and growth rate policies affected the growth rates of the firms and their performance.

#### **4.3 Foreign Exchange Risks Management Practices**

The respondents were asked the extent to which they agreed on the statements in table 4.2 on foreign exchange risks management practices. The table shows the findings.

**Table 4. 2: Foreign Exchange Risks Management Practices**

<b>TQM Practice</b>	<b>Mean</b>	<b>Std. Dev</b>
The Company has a documented foreign exchange rate management policy	3.4231	0.001
The Company maintains foreign currency denominated accounts	4.215	0.231
The Company purchases in local currency from local suppliers	4.562	0.014
The company uses forward contracts used to protect known contractual cash flows, such as exposed transactions	4.412	0.0621
The Company use contracts that specify delivery of fixed quantities of foreign currencies on a set delivery date in the future that are traded on an organized market (Futures)	3.985	0.124
The company uses currency options	4.111	0.006
The company uses currency Swaps	4.217	0.124



The respondents said that the Company had a documented foreign exchange rate management policy to a moderate extent with a mean of 3.4231 and a deviation of 0.001. This finding is consistent with those of Menon (2005) examined foreign currency risk management practices in U.S. multinationals and established that confirmed that the use of FXD among U.S. MNCs is positively correlated with their level of foreign currency exposure. As firms face higher levels of foreign currency exposure, they use more FXD to hedge against the exposure. The Company maintains foreign currency denominated accounts to a great extent as was shown by a mean of 4.215 and a deviation of 0.231. The Company purchases in local currency from local suppliers to a very great extent as was shown by a mean of 4.562 and a deviation of 0.014. The company uses forward contracts used to protect known contractual cash flows, such as exposed transactions to a great extent as was shown by a mean of 4.412 and a deviation of 0.0621. Fatemi and Glaum (2000), further argue that firms should not manage risks solely for the tax reasons, since it is too expensive. Benefits could only be realized in countries with progressive corporate taxes and allowed carry forwards.

The Companies uses contracts that specify delivery of fixed quantities of foreign currencies on a set delivery date in the future that are traded on an organized market (Futures) to a great extent as was shown by a mean of 3.985 and a deviation of 0.124. The company uses currency options and currency Swaps to a great extent with a mean of 4.111 and 4.217 respectively and deviations of 0.006 and 0.124. Economic condition of the country can affect a firm's performance on multiple fronts. According to Ntim (2009), Prices of utilities, high costs associated with plant and machinery due to either

deterioration of currency or import costs, high inflation rate and low income level of people can decrease the demand for industrial goods and hence negatively impact the firm's performance (Forbes, 2002)

#### 4.4 Trading Liquidity Risk Management Practices

**Table 4.3: Trading Liquidity Risk Management Practices**

TQM Practice	Mean	Std. Dev
The company has a well documented liquidity risk management policy	3.865	0.001
The policy is reviewed frequently as need arises	3.456	0.231
Well established information systems to enable active and timely identification, aggregation, monitoring and control of liquidity risk exposures	3.623	0.452
There is adequate oversight of liquidity by the Organizations Board	3.224	0.124
The company has a well co-ordinate analysis of funding requirements under alternative scenarios	3.762	0.963
The company maintains a cushion of high quality, unencumbered, liquid assets that can be used, without impediment, to obtain funding in times of stress	3.875	0.456
Diversification in the sources and tenor of funding, and regular review of concentration limits	4.023	0.362
regular efforts to establish and maintain relationships with liability holders	4.512	0.254
The Company does regular assessment of the capacity to sell assets	4.628	0.114

The respondents agreed that the company has a well documented liquidity risk management policy with a mean of 3.865 and a deviation of 0.001. These findings support those of Ogol (2011) who established that MFIs had in place liquidity risk management practices. This was the case when it involved understanding the liquidity risk, identification, analysis/assessment and monitoring. On whether the policy is

reviewed frequently as need arises, the respondents agreed with a mean of 3.456 and a deviation of 0.23. Ogol (2011) highlighted that there is need for organizations to review their risk management policies frequently as the existence of a risk management policy and the integration of risk management in setting of organizational objectives were considered to be the key risk management practices that had a direct effect on financial performance. On whether there are well established information systems to enable active and timely identification, aggregation, monitoring and control of liquidity risk exposures, the respondents agreed with a mean of 3.623 and a deviation of 0.452.

On whether there is adequate oversight of liquidity by the Organizations Board, the respondents agreed with a mean of 3.224 and a deviation of 0.124. Asked whether the company has a well co-ordinate analysis of funding requirements under alternative scenarios, the respondents agreed with a mean of 3.762 and a deviation of 0.963. On whether the company maintains a cushion of high quality, unencumbered, liquid assets that can be used, without impediment, to obtain funding in times of stress, the respondents agreed with a mean of 3.875 and a deviation of 0.456. Asked whether there was diversification in the sources and tenor of funding and regular review of concentration limits the respondents agreed with a mean of 4.023 and a deviation of 0.362. On the regular efforts to establish and maintain relationships with liability holders the respondents strongly agreed with a mean of 4.512 and a deviation of 0.254. Asked whether the Company does regular assessment of the capacity to sell assets, the respondents strongly agreed with a mean of 4.628 and 0.114. Manfredo et al (2003) also noted that since oil marketing firms themselves tend to face more sources of both

business and financial risks, it is imperative to identify the causes of these risks as oil marketing firms operate under pooling arrangements and in a wide geographic area which maximizes their level of diversification.

#### 4.5 Financial Performance

The respondents were asked to indicate the level of performance of their firms. The responses are shown below.

**Table 4.4: Financial Performance of the Firms**

Ratio	2009		2010		2011		2012		2013	
	F	%	F	%	F	%	F	%	F	%
0.1-0.3	5	28	6	33%	7	39%	6	33%	6	33%
0.3-0.5	4	22%	3	17%	8	44%	5	28%	5	28%
0.5-0.7	6	33%	5	28%	2	11%	5	28%	4	22%
0.7-0.9	3	17%	4	22%	1	6%	2	11%	3	17%

From the responses the firms whose ROE ratio was between 0.1-0.3 in 2009 were 28%, 33% in 2010, 39% in 2011, 33% in 2012 and another 33% in 2013. Firms whose ROE ratio was between 0.3-0.5 in 2009 were 22%, 17% in 2010, 44% in 2011, 28% in 2012 and another 28% in 2013. Those whose ratio was between 0.5-0.7 in 2009 were 33%, 28% in 2010, 11% in 2011, 28% in 2012 and 22% in 2013. Firms whose ratio was between 0.7-0.9 in 2009 were 17%, 22% in 2010, 6% in 2011, 11% in 2012 and 17% in 2013. Financial risk management practices to managing risk no longer suffice in an increasingly volatile, interconnected business environment. Enhanced understanding of how risk affects financial performance may decrease the probability of insolvency and provide greater stability to a depository institution. Risk management is a key aspect of a supervisory committee's role, and fair value measurements can have a significant effect

on areas of risk management, including incentive compensation arrangements, liquidity risk, credit risk, debt covenants, and asset concentration levels (Gestel and Baesen 2009).

#### 4.6 Regression Analysis

In order to establish the relationship between financial risk management practices and financial performance of oil marketing companies in Kenya, regression analysis was conducted. The analysis applied the statistical package for social sciences (SPSS) to compute the measurements of the multiple regressions for the study.

**Table 4. 5: Multiple Regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.859	0.738	0.715	0.244

a. Predictors: (Constant), interest rate risk management practices, foreign exchange risks management practices and trading liquidity risk management practices.

From the table above, R-Square is a commonly used statistic to evaluate model fit. The adjusted  $R^2$  also called the coefficient of multiple determinations and is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. 73.8% of the changes in financial performance of the oil marketing companies are explained by the financial risk management practices adopted by the firm. Other factors contribute to the 26.2% of changes in the financial performance of the oil marketing firms.

**Table 4. 6: ANOVA Results**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.966	4	2.742	38.851	0.001
	Residual	5.504	78	0.071		

	Total	16.47	82			
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a. Predictors: (Constant), interest rate risk management practices, foreign exchange risks management practices and trading liquidity risk management practices.

b. Dependent Variable: financial performance

From the ANOVAs results, the probability value of 0.001 was obtained implying that the regression model was significant in predicting the relationship between dependent and independent variables as it was less than  $\alpha=0.05$ . This shows that the regression relationship was highly significant in predicting how the independent variables affect the dependent variable.

**Table 4. 7:Regression coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.085	0.294		7.092	0.002
	Interest rate risk	0.892	0.074	0.288	12.054	0.001
	Foreign exchange risk	0.722	0.124	0.196	5.823	0.000
	Trading liquidity risk	0.704	0.108	-0.04	6.519	0.010

a. Dependent Variable: Financial Performance

The regression equation above has established that taking all independent factors into account, at constant at zero growth of the dependent variable (financial performance ) will be 2.085. The findings presented also show that taking all other independent variables at zero, a unit increase in interest rate risk management practices would lead to a 0.892 increase in the financial performance of the oil marketing companies of Kenya. Further, the findings shows that a unit increases in foreign exchange risk management

practices would lead to 0.722 increases in the financial performance of the oil marketing companies of Kenya. In addition, the findings show that a unit increase in trading liquidity risk management practices would lead to a 0.704 increase in financial performance of the oil marketing companies of Kenya. This notwithstanding, all the variables were significant as the P-values were less than 0.05. The analysis was undertaken at 5% significance level. The criteria for comparing whether the predictor variables were significant in the model was through comparing the corresponding probability value obtained and  $\alpha=0.05$ . If the probability value was less than  $\alpha$ , then the predictor variable was significant otherwise it was not.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of key data findings, discussions and conclusion drawn from the findings highlighted. The chapter also makes recommendations for the study. The study sought to determine the effects of financial risk management practices on financial performance of oil marketing companies in Kenya.

#### **5.2 Summary of the Findings**

##### **5.2.1 Interest Rates And Risk Management Practices**

The findings revealed that the companies had a documented interest rate management policy. According to Crabb (2003) interest rates play an important role in the operating environment of a business and that financial risk management provides an avenue for firms to mitigate adverse changes in the business operating environment. The findings also showed that firms matched the source of finance with the cash flows of the Company and that they negotiated reasonable credit period with their suppliers. Mowbray (1995) concluded that one of the financial obligations of any organization includes debt repayment and thus firms should ensure the agreement they have with the suppliers gives them adequate time to make payments. The findings also indicated that the firms purchased on credit instead of applying for loans and overdrafts. Gestel and Baesen (2009) concluded that risk management practices enhance understanding of how risk affects financial performance of the firm and thus firms needs to include incentive that will reduce credit risk of the firm. The study also reveals that the companies had an



appropriate board and senior management oversight and thus had developed adequate interest rate risk management policies and procedures. Risk management is a key aspect of a supervisory committee's role, and fair value measurements can have a significant effect on areas of risk management, including incentive compensation arrangements, liquidity risk, credit risk, debt covenants, and asset concentration levels (Gestel and Baesen 2009). The study also reveals that the company has elaborate and adequate measures of interest risk and that the Company adequately monitors and control of interest rate risks. The findings also revealed that the companies have comprehensive internal controls and independent .In their analysis of risk management practices in the oil and gas industry in Ghana using a case study of Tema Oil Refinery (Tor), Osabutey, Obro- Adibo, Agbodohu and Kumi (2013) established that TOR incorporates risk management in their strategic plan and have operations and Audit risk department but have been battling with effective implementation.

### **5.2.2 Foreign Exchange Risks Management Practices**

On foreign exchange risks and management practices, the study revealed that The respondents said that the Company had a documented foreign exchange rate management policy to a moderate extent with a mean of 3.4231 and a deviation of 0.001.this findings are consistent with those of Menon (2005) examined foreign currency risk management practices in U.S. multinationals and established that confirmed that the use of FXD among U.S. MNCs is positively correlated with their level of foreign currency exposure. As firms face higher levels of foreign currency exposure, they use more FXD to hedge against the exposure. The findings also showed that the Company maintains foreign currency denominated accounts and purchases in local currency from local suppliers. The

findings also show that the company uses forward contracts used to protect known contractual cash flows, such as exposed transactions. Fatemi and Glaum (2000), further argued that firms should not manage risks solely for the tax reasons, since it is too expensive. Benefits could only be realized in countries with progressive corporate taxes and allowed carry forwards. The Companies uses contracts that specify delivery of fixed quantities of foreign currencies on a set delivery date in the future that are traded on an organized market (Futures) and uses currency options and currency Swaps. Economic conditions of the country can affect a firm's performance on multiple fronts. According to Ntim (2009), Prices of utilities, high costs associated with plant and machinery due to either deterioration of currency or import costs, high inflation rate and low income level of people can decrease the demand for industrial goods and hence negatively impact the firm's performance (Forbes, 2002)

### **5.2.3 Trading Liquidity Risk Management Practices**

On trading liquidity risk management practices, the findings showed that the companies had a well documented liquidity risk management policy. These findings support those of Ogol (2011) who established that MFIs had in place liquidity risk management practices. This was the case when it involved understanding the liquidity risk, identification, analysis/assessment and monitoring. The findings also showed that policy is reviewed frequently as need arise. Ogol (2011) highlighted that there is need for organizations to review their risk management policies frequently as the existence of a risk management policy and the integration of risk management in setting of organizational objectives were considered to be the key risk management practices that had a direct effect on financial performance. The findings also showed that there was an established information systems

to enable active and timely identification, aggregation, monitoring and control of liquidity risk exposures and that there is adequate oversight of liquidity by the Organizations Board. The study also shows that the companies has a well co-ordinate analysis of funding requirements under alternative scenarios, and thus maintenances a cushion of high quality, unencumbered, liquid assets that can be used, without impediment, to obtain funding in times of stress. The findings also showed that there was diversification in the sources and tenor of funding and regular review of concentration limits, there are regular efforts to establish and maintain relationships with liability holders and that the companies do regular assessment of the capacity to sell assets. Manfredo et al (2003) also noted that since oil marketing firms themselves tend to face more sources of both business and financial risks, it is imperative to identify the causes of these risks as oil marketing firms operate under pooling arrangements and in a wide geographic area which maximizes their level of diversification.

### **5.3 Conclusions**

The study made the following conclusions

On interest rate risk management, the study concluded that the oil marketing companies in Kenya have interest rate management policy and that they periodically review the interest rate policies. The study also concludes that oil marketing firms in Kenya have developed adequate interest rate risk management policies and procedures and have elaborate and adequate measures of interest risk since they adequately monitor and control of interest rate risks. The study also concludes that oil marketing companies in Kenya match the source of finance with the cash flows of the Company and carry out comprehensive internal controls and independent audits. The study also concludes that

the oil marketing companies in Kenya negotiate reasonable credit period with its suppliers by purchasing on credit instead of applying for loans and overdrafts. The marketing firms also have appropriate board and senior management oversight. This Defines clearly the authorized instruments, hedging strategies and position taking opportunities thus ensuring that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest

On foreign exchange risks management practices, the study concludes that the oil marketing firms in Kenya have documented foreign exchange rate management policy and that they maintain foreign currency denominated accounts. The study also concludes that oil marketing firms purchase in local currency from local suppliers and that they use forward contracts used to protect known contractual cash flows, such as exposed transactions. The study also concludes that oil marketing firms use contracts that specify delivery of fixed quantities of foreign currencies on a set delivery date in the future that are traded on an organized market (Futures). The study also concludes that these oil marketing firms use currency options and currency Swaps.

On trading liquidity risk management practices, the study concludes that oil marketing firms in Kenya have a well documented liquidity risk management policy and that the policy is reviewed frequently as the need arises. The study also concludes that there are well established information systems that enable active and timely identification, aggregation, monitoring and control of liquidity risk exposures and that there is adequate oversight of liquidity by the Organizations Board. The study also concludes that the

company has a well co-ordinate analysis of funding requirements under alternative scenarios and that oil marketing firms in Kenya maintain a cushion of high quality, unencumbered, liquid assets that can be used, without impediment, to obtain funding in times of stress. The study also concludes that there is diversification among the oil marketing firms in Kenya which acts as a source and tenor of funding, and regular review of concentration limits regular efforts to establish and maintain relationships with liability holders. The firms also conduct regular assessment of the capacity to sell assets.

#### **5.4 Policy Recommendations**

The study established that some oil marketing firms have interest rate management policies. This study therefore recommends that the management of the firms come up with management policies that will address the variations in interest rates at different times. The study also recommends that the government introduces incentives to this oil marketing firms that will cushion them against the high interest rates charged to them. These incentives will encourage these firms to apply for more subsidized loans for procurement and thus improving their financial performance.

The study also established that the firms have internal controls and independent audits. This study therefore recommends that the firms also conduct audits by external auditors. These may help in accountability especially to the public and the shareholders. The study also recommends that the policy makers in the government should review laws thus allowing major oil firms to declare their audit reports to the public. This will be effective in ensuring transparency in the operations of the firms especially since they transact globally.

The study established that some oil marketing firms in Kenya do not define clearly the authorized instruments, hedging strategies and position taking opportunities. This study therefore recommends that in order to deal with the fluctuating international oil prices, the firms need to increase the use of financial derivatives in a bid to hedge their risks. This may involve entering into special contracts like options where the value of the contract lies in the petroleum crude oil. The government should also come up with control policies and incentives that will reduce the impact of the fluctuating prices on the firms so as to prevent losses among the company.

### **5.5 Limitations of the Study**

The study encountered various limitations.

The study relied on primary data collected using questionnaires. During data collection some of the respondents were reluctant to give information as they were afraid that the information would be used against them. However the researcher assured them the information would be treated with confidentiality and that the findings were only to be presented for academic purposes.

Another limitation of the study was time. There was limited time available to complete the research as the targeted respondents who are in management operated busy schedules and thus had limited time to respond to the questions. To overcome this challenge, the researchers used a drop and pick later method so as to allow the respondents some time to fill in and return the questionnaires.

## **5.6 Recommendations for Further Studies**

This study recommends that in the future a similar study be conducted across all sectors of the economy. This is because this study concentrated on the oil marketing firms in Kenya which is in the energy and petroleum sector and thus the findings cannot be generalized for the entire economy. Conducting the study across all sectors in the economy will enable for the generalization of the findings on the effects of financial risk management practices on financial performance.

The study also recommends that in the future a study be conducted on the effectiveness of the financial risk management practices adopted by oil marketing companies in Kenya on improving the financial performance of the organization. This study has concentrated on the effects of the financial risk management practices on the financial performance of the organization but did not highlight on the effectiveness of those practices. Thus the study will be relevant in highlight how effective these financial management practices are.

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## APPENDICES

### APPENDIX I: QUESTIONNAIRE

#### SECTION A: INTEREST RATE RISK MANAGEMENT PRACTICES

1. Below is a set of interest rate risk management practices among organizations. Please indicate the extent to which each of these practice is utilized in your organization. Use a scale of 5= strongly agree, 4= agree, 3= neutral, 2= disagree, and 1= strongly disagree.

TQM Practice	1	2	3	4	5
The Company has a documented interest rate management policy					
By matching the source of finance with the cash flows of the Company					
By negotiating reasonable credit period with its suppliers					
By purchasing on credit instead of applying for loans and overdrafts					
The Company has an appropriate board and senior management oversight					
The company has developed adequate interest rate risk management policies and procedures					
The Company has elaborate and adequate measures of interest risk					
The Company adequately monitors and control of interest rate risks					
The company has comprehensive internal controls and independent audits.					
Defining clearly the authorized instruments, hedging strategies and position taking opportunities					
Ensuring that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest					
Periodically reviewing the interest rate policies					

#### SECTION B: FOREIGN EXCHANGE RISKS MANAGEMENT PRACTICES

2. Below is a set of foreign exchange risks management practices among organizations. Please indicate the extent to which each of these practice is utilized in your

organization. Use a scale of 5= Very great extent, 4= Great extent, 3= Moderate extent, 2= little extent; and 1= No extent.

<b>TQM Practice</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The Company has a documented foreign exchange rate management policy					
The Company maintains foreign currency denominated accounts					
The Company purchases in local currency from local suppliers					
The company uses forward contracts used to protect known contractual cash flows, such as exposed transactions					
The Company use contracts that specify delivery of fixed quantities of foreign currencies on a set delivery date in the future that are traded on an organized market (Futures)					
The company uses currency options					
The company uses currency Swaps					

### **SECTION C: TRADING LIQUIDITY RISK MANAGEMENT PRACTICES**

3. Below is a set of trading liquidity risk management practices among organizations. Please indicate the extent to which each of these practice is utilized in your organization. Use a scale of 5= strongly agree, 4= agree, 3= neutral, 2= disagree, and 1= strongly disagree.

<b>TQM Practice</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The company has a well documented liquidity risk management policy					
The policy is reviewed frequently as need arises					
Well established information systems to enable active and timely identification, aggregation, monitoring and control of liquidity risk exposures					
There is adequate oversight of liquidity by the Organizations Board					
The company has a well co-ordinate analysis of funding requirements under alternative scenarios					
The company maintenances a cushion of high quality, unencumbered, liquid assets that can be used, without impediment, to obtain funding in times of stress					

Diversification in the sources and tenor of funding, and regular review of concentration limits					
regular efforts to establish and maintain relationships with liability holders					
The Company does regular assessment of the capacity to sell assets					

**SECTION D: FINANCIAL PERFORMANCE**

Kindly indicate the level of return on Equity for the company over the last five years

<b>Year</b>	<b>Levels of ROE recorded</b>
2013	
2012	
2011	
2010	
2009	

**APPENDIX II: LIST OF OIL MARKETERS BY MARKET SHARE**

<b>Market Shares Kenya Petroleum Sales January to September 2011</b>		<b>Overall Market shares January to September 2011</b>	
<b>Company</b>	<b>% Market share</b>	<b>Company</b>	<b>% Market share</b>
Total Kenya	23.7	KENOLKOBIL	21.3
KenolKobil	23.4	Total Kenya	19.7
SHELL	17.8	SHELL	14.4
Libya Oil	10	LIBYAOIL	9.1
National Oil	5.8	National Oil	4.7
GAPCO	3.4	GAPCO	4.7
Gulf Energy	1.9	Gulf Energy	3.4
BAKRI International	1.8	Hass Petroleum	3.3
HASS Petroleum	1.7	BAKRI	2.1
Hashi Energy	1.5	FOSSIL	2.1
GALANA Oil	1.4	Galana Oil	1.5
ENGEN	0.8	Addax Kenya	1.4
OILCOM	0.6	Hashi Energy	1.2
MGS	0.6	ENGEN	1.1
RIVAPET	0.6	BANODA	0.9
FOSSIL	0.4	MGS	0.9
TROJAN	0.4	ROYAL	0.8
ADDAX	0.4	ALBA	0.7
BANODA	0.4	TROJAN	0.5
REGNOL	0.4	OILCOM	0.5
MILLENIUM	0.3	RIVAPET	0.5
PETRO	0.3	JADE	0.5
E.A. GASOIL	2.3	AINUSHAMSI	0.5
<b>Total</b>	<b>100</b>	Others	4
		<b>Total</b>	<b>100</b>

Source: PIEA (2014)