THE EFFECT OF RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF ISLAMIC BANKS IN KENYA

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

OCTOBER, 2015

DECLARATION

This research project is my original work and has not been submitted for the award of a degree or any other qualification in any other university.

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

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DEDICATION

This study is dedicated to my family for their constant encouragement and for being patient enough to see me go through my academic struggle thus realizing my long cherished dream.

ACKNOWLEDGEMENT

The completion of this research project would not be possible without the material and moral support from various people. It is my obligation therefore to extend my gratitude to them. First of all, I thank the almighty God for giving me good health, and for guiding me through the entire course. I am greatly indebted to Mr. Abdullatif Essajee who was my supervisor, for his effective supervision, dedication, availability and professional advice. I extend my gratitude to the lecturers who taught me in the MBA programme, thus enriching my research by laying the theoretical grounding of this work.

I am also greatly indebted to commercial bank officials, who were my respondents for their support and willingness to provide the required information for this study. My appreciation also goes to my classmates, with whom I weathered through the storms, giving each other encouragement and for their positive criticism.

I also acknowledge my family members for their moral support during the entire study period. These family members include; my parents Mr. and Mrs John Makori, my brothers and sisters.

ABBREVIATIONS

BNM – Bank Negara Malaysia

CBK – Central Bank of Kenya

ERM – Enterprise Risk Management

GDP – Gross Domestic Product

IMF – International Monetary Fund

MENA – Middle East and North Africa

NIM – Net Interest Margin

NPL – Non-performing Loans

ROA – Return on Assets

ROE – Return on Equity

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ABSTRACT

Risk management is integral to a bank's operations. It involves integrating risk management practices into the processes, systems and culture of the institution. Financial institutions face increasing pressure from various stakeholder groups to effectively manage their operational risks and to report their performance transparently across such risk management initiatives. This study therefore sought to fill this gap by establishing the effect of risk management on the financial performance of Islamic banks in Kenya. The objective of this study was to assess the effect of risk management on the financial performance of Islamic banks in Kenya. The study used a descriptive research design. The target population was seven commercial banks offering Islamic Banking in Kenya. For the purpose of this study the researcher focussed on the two fully fledged Islamic banks in Kenya and five commercial banks offering Islamic banking products. Census technique was used to include all the seven banks practicing Islamic banking. The researcher used secondary data which was obtained from the published annual reports spanning five years (2010 - 2014) for the Islamic banks and conventional banks with Islamic windows in Kenya. In analysing the quantitative data, the study used descriptive statistics using Statistical Package for Social Sciences (SPSS Version 18.0). The multiple regression analysis was used to determine the significance of each study's independent variable in affecting the financial performance of Islamic banks in Kenya. From the findings the study concludes that risk management positively influenced the financial performance of Islamic banks in Kenya, as it was found that there was a strong positive relationship between risk management and financial performance of Islamic banks in Kenya. The study also found that there was a negative relationship between credit risk, insolvency risk, interest rate sensitivity and financial performance of Islamic banks. Thus the study concludes that credit risk, insolvency risk, interest rate sensitivity negatively affect the financial performance of Islamic banks. The study also revealed that there was a positive relationship between capital adequacy, size of the banks, operational efficiency and financial performance of Islamic banks. Thus the study concludes that capital adequacy, size of the banks, operational efficiency positively influences the financial performance of Islamic banks. The most significant factor is credit risk. Overall credit risk had the greatest effect on the financial performance of Islamic banks in Kenya. The study recommends that there is need for the Islamic banks to effectively manage their risk as it was found that risk management positively influences financial performance of Islamic banks. There is need for the management of Islamic banks to constantly check their banks' exposure to credit risk, insolvency risk, interest rate sensitivity, as it was revealed that credit risk, insolvency risk, interest rate sensitivity negatively affect the financial performance of Islamic banks. There is need for the for the Islamic banks to enhance their capital adequacy, size of the banks and operational efficiency, as it was revealed that capital adequacy, size of the banks and operational efficiency positively influence the performance of Islamic banks.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The study of risk management began after World War II. Several sources (Crockford, 1982; Harrington and Neihaus, 2003; Williams and Heins, 1995) date the origin of modern risk management to 1955-1964. Snider (1956) observed that there were no books on risk management at the time, and no universities offered courses in the subject. Mehr and Hedges (1963) and Williams and Hems (1964) published the first two books. They basically covered pure risk management, which excluded corporate financial risk. In parallel, engineers developed technological risk management models. Operational risk partly covers technological losses; today, operational risk has to be managed by financial institutions.

In recent years, the changing operating environment has posed a great threat to the value maximization process in organizations. Catastrophes and systemic shocks altered the way risk was managed in the 1970s and 1980s, and risk management has emerged as a separate discipline in the corporate world since the 2000s. The concept of risk management is not so new because risk management techniques like: risk reduction through safety, quality control and hazard education; alternative risk financing; and insurance including self-insurance and captive insurance have been in existence for a long time (Doherty, 2006). Risks are now not perceived as threats (adverse financial effects) but as potential opportunities and the focus of risk management has changed from all risks to critical risks (KPMG LLC, 2001).

Recognition of risk management as a separate managerial function entails many advantages and the inclusion of risk management as a strategy in the general management function helps to enhance a firm's value (Suranarayana, 2003). On the other hand, convergence of technology has given impetus to the need of internal controls in the organization highlighting the importance of the operational risk management through which the internal audit should be alert to the whole process of implementation of the systems for managing the operational risk management in entities (Lam, 2003).

In 2005 the Central Bank of Kenya on realization of the importance of risk management on commercial banks operating in Kenya issued a circular through a treasury circular 2005/5 instructing all banks to establish enterprise risk management framework. According to the circular on institutional risk management and policy framework (IRMPF), to support performance contracting and results based management initiatives in the banking sector, there is a demand for a framework that provides a basis for management to effectively deal with uncertainties and associated risks (CBK, 2010).

1.1.1 Risk Management

Risk management is the process of identifying loss exposures faced by an organization and selecting the most appropriate techniques for treating such exposures (Saunders & Cornett, 2006). On their part, Cebenoyan *et al*. (2004) assert that risk management is a process of measuring or assessing risk and then developing

strategies of managing risks. Moeller (2007), also states that the risk management process involves four steps that is identifying potential losses, evaluating potential losses, selecting appropriate risk management techniques for treating loss exposures and implementing and administering the risk management program. Both Moeller (2007) and Ali & Luft (2002) argue that in risk management, a prioritization process must be followed whereby the risk with the greatest loss and greatest probability of occurrence is handled first and risks with lower loss are handled later. However in practice, the process can be difficult and balancing between risks with a high probability of occurrence but lower loss against a risk with high loss but lower probability of occurrence can be mishandled. Cebenoyan *et al*. (2004) agree that commercial banks use various techniques for managing risks which include: risk identification, risk assessment, risk mitigation and risk monitoring techniques.

Risk management can therefore be viewed as the overall process that a financial institution follows to define business strategy, to identify the risks to which it is exposed, to quantify those risks, and to understand and control the nature of risks it faces. The main elements of risk management include identifying, measuring, monitoring and managing risk exposures. However, these cannot be effectively implemented unless there is a broader process and system in place. The overall risk management process should be comprehensive embodying all departments/sections of the bank so as to create a risk management culture (Saunders & Cornett, 2006).

1.1.2 Financial Performance

According to Khrawish (2011), profit is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does not mean that commercial banks have no other goals. Commercial banks could also have additional social and economic goals. However, the intention of this study is related to the financial performance aspect of Islamic banks in Kenya.

To measure the financial performance of commercial banks there are variety of ratios used, of which, Return on Asset (ROA) and Return on Equity (ROE) are the major ones. ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is the ratio of Net Income after Taxes divided by Total Equity Capital. ROA is also another major ratio that indicates the profitability of a bank. It is a ratio of income to its total asset. It measures the ability of the bank management to generate income by utilizing company assets at their disposal (Khrawish, 2011).

1.1.3 Risk Management and Financial Performance

Commercial banks like other businesses are well advised to use sound risk management practices when planning for the future so as not to deplete the resources of the company. Harker and Satvros, (1998) argued that commercial banks could not survive with increased losses and expense ratios. Preventing losses by taking

precautionary measures is a key driver of profitability and a key element in reducing risks. Kersnar (2009) asserted that financial institutions have a direct financial interest in reducing losses through preventing accidents and other adverse activities and ensuring that if one occurs, its effects on the organization's wellbeing are minimized.

Given the importance of risk management in the functioning of financial institutions, the efficiency of a bank's risk management is expected to significantly influence its financial performance. An extensive body of banking literature (Santomero and Babbel, 1997) argues that risk management is paramount to the financial performance of banks. According to Pagano (2001), risk management is an important function of banking institutions in creating value for shareholders and customers. The corporate finance literature has linked the importance of risk management with the shareholder value maximization hypothesis. This suggests that a firm will engage in risk management policies if it enhances shareholder value (Ali and Luft, 2002).

1.1.4 Islamic Banking in Kenya

In Kenya, Islamic banks are not separately defined in the Banking Act. All banks including those operating pursuant to Islamic Banking principles are subject to the requirements of the Banking Act. Indicators in the first year of operations of the two fully-fledged Islamic banks pointed to potential for Islamic banking in Kenya. There is still room to grow this market niche given tremendous expansion of Kenya's banking sector for instance, the number of bank accounts tripled from 2.6 million in 2005 to 7.5 million in 2009 (Gulf African Bank, 2014). Currently there are 2 fully

fledged Islamic Banks and five commercial banks offering Islamic bank product and services in Kenya (CBK, 2015). Islamic Banking prohibits interest but allows profit sharing. Therefore Sharia compliant financing products have element of "trading" and "holding of fixed assets" as the bank has to buy and sell financed assets. However, Section 12 of the Banking Act restricts trading and holding of fixed assets and thus the Banking Act was amended in 2006 to enable exemption of innovative products such as Sharia compliant banking financing products from trading and holding of fixed assets restrictions.

Barclays' La Riba account was the first-ever Shari'ah-compliant account in Kenya. The account was set up in December 2005. However, Kenya's first Islamic bank, First Community Bank (FCB) was granted a banking license in May 2007. The bank started operations in May 2008. Apart from FCB, Gulf African Bank is the other bank in Kenya with a license to operate as a fully-fledged Islamic bank. Other banks in Kenya such as Kenya Commercial Banks, Barclays Bank, Standard Chartered Bank, Chase Bank and National Bank have Islamic windows. The study is focussing on Islamic Banking because much of the research that has been done on the effect of risk management on financial performance has been on conventional banks. Therefore, there exists knowledge on how risk management in Islamic Banks affects their financial performance as they employ different banking approaches from conventional banks (CBK, 2015).

1.2. Research problem

Risk management is integral to a bank's operations. It involves integrating risk management practices into the processes, systems and culture of the institution. Financial institutions face increasing pressure from various stakeholder groups to effectively manage their operational risks and to report their performance transparently across such risk management initiatives (Basel Committee on Banking Supervision, 2014). By linking operational risks, management and performance, banks can more effectively and efficiently appreciate the value of implementing risk-based management frame-work. Such appreciation is critical for an organization to consistently invest resources in improving and evolving its operational risk management framework in order to drive strategy, resource allocation and other decisions necessary for it to achieve its organizational objectives (Payle, 1997). Financial institutions have faced numerous difficulties over the years for a multitude of reasons. The major causes of serious banking problems continue to be directly related to poor risk management practices, lax credit standards for borrowers and counterparties or lack of attention to changes in economic or other circumstances that lead to deterioration in the credit standing of a bank's counterparties (Gil-Diaz, 2008). Despite these facts, over the years there has been an increase in the number of significant bank problems in both, matured as well as emerging economies (Basel Committee on Banking Supervision, 2014). Banks should now have a keen awareness of the need to identify, measure, monitor and control various risks for survival as well as their progress (Oloo, 2009).

Some of the global studies on risk management financial performance include BNM (2008) who established that the sturdiness of the financial institutions is of vital significance as observed during the most modern US financial crisis of 2008. The IMF (2008) anticipated total losses to reach $945 billion globally by April 2008. World's largest banks announced write-downs of $274 billion in total on the first anniversary of the credit crunch. While US subprime mortgages and leveraged loans may reach $1 trillion according to some estimates of July 2008 (Kollewe, 2008). A new rulebook by the name of Basel III was formulated as a repercussion of the 2007-2009 financial crises so as to take in a number of measures in order to reinforce the resilience of the banking sector (BCBS, 2009).

The review of the local studies shows that there have been several studies on risk management in Kenya. Kabiru (2002) did a study on the relationship between credit risk assessment practices and the level of non-performing loans of Kenyan banks. Ongechi (2009) analyzed the risk management strategies used by Fina Bank Limited in lending to SMEs. Kithinji (2010) analysed credit risk management and profitability of commercial banks in Kenya. Muasya (2009) analyzed the impact of non-performing loans on the performance of the banking sector in Kenya in the time of global financial crises while Wanjira (2010) studied the relationship between non-performing loans management practices and financial performance of commercial banks in Kenya. These studies have primarily focused on the practices used by commercial banks in dealing with credit risk management aspects with no reference to Islamic Banks. Yet there are unique risks associated with Islamic Banks such as

shariah non-compliance risk, displaced commercial risk, equity investment risk and rate of return risk. None of the studies have dealt with the comprehensive risk management practices that address all the aspects of business risks including operational, financial, compliance and governance risks and their effect on the financial performance of the Islamic banks in Kenya. This study therefore sought to fill this gap by establishing the effect of risk management on the financial performance of Islamic banks in Kenya. The study therefore sought to answer this research question: What is the effect of risk management on the financial performance of Islamic banks in Kenya?

1.3 Research Objective

To assess the effect of risk management on the financial performance of Islamic banks in Kenya.

1.4 Value of the Study

The study may offer valuable contributions from both a theoretical and practical standpoint. From a theoretical standpoint, it contributes to the general understanding of risk management and its effect on the financial performance of Islamic banks and by extension other conventional banks in Kenya.

Islamic Banks in Kenya: The study may enable Islamic Banks management in Kenya to improve their risk management process and to adopt efficient strategies to improve firm financial performance through the risk management processes. This may enable

the Islamic Banks to perform better and to grow their businesses and maintain a competitive advantage.

The government: The regulator (Central Bank of Kenya) may use this study to design and improve on the current risk management framework for all commercial banks in Kenya.

Researchers and academicians: The study may also add to the existing body of knowledge on risk management. This may benefit academicians and other researchers by providing materials that form the basis for further research on risk management in the banking sector.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides theoretical and empirical information from publications on topics related to the research problem. It summarizes the information from other researchers who have carried out their research in the same area of risk management and its effect on financial performance of banks.

2.2 Theoretical Review

2.2.1 Risk Management Theory

Wenk (2005), states that the Risk Management model consists of risk identification, risk assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. Risks can come from uncertainty in financial markets, project failures, legal liabilities, credit risk, accidents, natural causes and disasters as well as deliberate attack from an adversary, or events of uncertain or unpredictable root-cause. Several risk management standards have been developed including the Project Management Institute, the National Institute of Science and Technology, actuarial societies, and ISO standards. Methods, definitions and goals vary widely according to whether the risk management method is in the context of project management, security, engineering, industrial processes, financial portfolios, actuarial assessments, or public

health and safety (Simkins and Fraser, 2010). The strategies to manage risk typically include transferring the risk to another party, avoiding the risk, reducing the negative effect or probability of the risk, or even accepting some or all of the potential or actual consequences of a particular risk.

Effective risk management can bring far reaching benefits to all organizations, whether large or small, public or private sector (Ranong and Phuenngam, 2009). These benefits include, superior financial performance, better basis for strategy setting, improved service delivery, greater competitive advantage, less time spent fire fighting and fewer unwelcome surprises, increased likelihood of change initiative being achieved, closer internal focus on doing the right things properly, more efficient use of resources, reduced waste and fraud, and better value for money, improved innovation and better management of contingent and maintenance activities (Wenk, 2005).

2.2.2 Modern Portfolio Theory

Modern portfolio theory (MPT) is a theory of investment which attempts to maximize portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets (Mignola & Ugoccioni, 2006). Since the 1980s, companies have successfully applied modern portfolio theory to manage market risk. Many companies are now using value at risk models to manage their interest rate and market risk exposures. Unfortunately, however, even though credit risk remains the

largest risk facing most companies, the practice of applying modern portfolio theory to risk has lagged (Linbo 2004).

Companies recognize how credit concentrations can adversely impact financial performance. As a result, a number of institutions are actively pursuing quantitative approaches to credit risk measurement. The banking industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted, (Chopra and Sodhi, 2004). The combination of these developments has precipitated vastly accelerated progress in managing credit risk in a portfolio context. Traditionally, organizations have taken an asset-by-asset approach to risk management. While each company's method varies, in general this approach involves periodically evaluating the quality of service exposures, applying a service risk rating, and aggregating the results of this analysis to identify a portfolio's expected losses. The foundation of the asset-by-asset approach is a sound risk review and internal risk rating system (Mignola and Ugoccioni, 2006).

2.2.3 Enterprise Risk Management Theory

According to Tseng (2007), Enterprise Risk Management (ERM) is a framework that focuses on adopting a systematic and consistent approach to managing all of the risks confronting an organization. Gordon et al., (2009) on the other hand define ERM as the overall process of managing an organization's exposure to uncertainty with

particular emphasis on identifying and managing the events that could potentially prevent the organization from achieving its objective. ERM is an organizational concept that applies to all levels of the organization". According to Committee of Sponsoring Organizations (COSO) (2004), "Enterprise risk management is 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". In conducting ERM, the following are listed as some of the areas or aspects of the organization that a risk manager need to look into namely: the people, intellectual assets, brand values, business expertise and skills, principle source of profit stream and the regulatory environment (Searle, 2008).

This will help organization to balance the two most significant business pressures; the responsibility to deliver succeed to stakeholders and the risks associated with and generated by the business itself in a commercially achievable way. By doing so, the risk manager is constantly aware of the risks it faces and therefore constantly monitors its exposure and be positioned to change strategy or direction to ensure the level of risks it takes is acceptable.

2.3 Determinants of Financial Performance

2.3.1 Management Quality

Management quality or efficiency plays a big role in determining the future of the bank. The management has an overview of a bank's operations, manages the quality of loans and has to ensure that the bank is profitable. The performance of management capacity is usually qualitative and can be understood through the subjective evaluation of management systems, organization culture, and control mechanisms and so on. However, the capacity of the management of a bank can also be gauged with the help of certain ratios of off-site evaluation of a bank in the capacity of the management to deploy its resources aggressively to maximize the income, utilize the facilities in the bank productively and reduce costs (Sangmi & Nazir, 2010).

2.3.2 Capital Adequacy

Capital adequacy refers to the sufficiency of the amount of equity to absorb any shocks that the bank may experience Nwankwo (1991). The capital structure of banks is highly regulated. This is because capital plays a crucial role in reducing the number of bank failures and loses to the stakeholders. According to Hardy and Bonaccorsi di Patti (2001) Nwankwo, (1991), capital adequacy is a widely acknowledged key factor in bank performance measurement and evaluation. It is the first of the five CAMEL

factors recognized and adopted by the Basel system of bank performance assessment of the Bank for International Settlement (BIS).

2.3.3 Quality of Assets

The quality of assets held by a bank depends on the exposure to specific risks, trends in non-performing loans, and the health and profitability of bank borrowers. Poor asset quality and low levels of liquidity are the two major causes of bank failures. Many financial institutions that collapse are due to high rate of non-performing loans (NPLs) and extensive insider lending. Credit risk is one of the factors that affect the health of banks. The extent of the credit risk depends on the quality of assets held by bank. The quality of assets held by a bank depends on exposure to specific risks, trends in non-performing loans, and the health profitability of bank borrowers (Ariffin & Kassim, 2009).

2.3.4 Liquidity

Another important decision that the managers of commercial banks take refers to the liquidity management. Liquidity is simply the ease with which assets of banks can be uncashed in times of need or its fair value. It is that quality of an asset that enables a bank to respond to any financial situation requiring urgent infusion of money. Liquidity is required to meet regular financial obligations of the bank especially without dipping into its reserves. When banks hold high liquidity, they do so at the opportunity cost of some investment which could generate high returns. The trade-

offs that generally exist between return and liquidity risk are demonstrated by observing that a shift from short-term securities to long-term securities or loans raises a bank's return but also increases its liquidity risks and the inverse in is true. Thus a high liquidity ratio indicates a less risky and less profitable bank (Ongore and Kusa, 2013).

2.4 Empirical Review

2.4.1 International Studies

Hakim and Neamie (2001) examined the relationship between credit risk and bank's performance of Egypt and Lebanon bank in 1990s. Using data for banks from the two countries over the period 1993-1999, the study estimated a fixed effects model of bank return with varying intercepts and coefficients. The findings showed that credit variable is positively related to performance, while liquidity variable is insignificant across all banks and have no impact on performance. The study also found a strong link between capital adequacy and commercial bank return with high capitalization being the hindrance to return. The study concluded that capital is a sunk cost with large banks realizing high profits in absolute but not in percentage terms. As a policy implication, the study provides important input for the policymakers in the MENA region to set better performance targets, and enable bank managers to allocate capital more efficiently across their business units. The study also contributed in terms of how commercial banks can better employ their current capital and evaluate their future performance.

The study by Drzik (2005) showed that following the 1991 recession, financial institutions invested heavily in risk management capabilities. These investments targeted financial (credit, interest rate, and market) risk management. It also showed that these investments helped reduce earnings and loss volatility during the 2001 recession, particularly by reducing name and industry-level credit concentrations. He also suggests that the industry faced major risk challenges (better treatment of operational, strategic, and reputational risks and better integration of risk in planning, human capital management, and external reporting) that were not addressed by recent investments and that would require development of significant new risk disciplines.

Ariffin and Kassim (2009) analyzed the relationship between risk management practices and financial performance in the Islamic banks in Malaysia. In achieving this objective, the study assessed the current risk management practices of the Islamic banks and linked them with the banks' financial performance. The study used both the primary (survey questionnaires) and secondary data (annual reports). The results of the study shed some light on the current risk management practices of the Islamic banks in Malaysia. By assessing their current risk management practices and linking them with financial performance, the study hoped to contribute in terms of recommending strategies to strengthen the risk management practices of the Islamic banks so as to increase the overall competitiveness in the Islamic banking industry.

Al-Smadi (2010) applied risk index to measure exposure to risk of several Jordanian banks, using data over 1995 to 2008. His findings indicated that three major macroeconomic variables were statistically significant. They were GDP, inflation rate

and market interest rate. He provided evidence that internal variables had effects on credit risk more than external variables. He found that the relationship between GDP and credit risk was significantly negative, while it was positive on inflation and also positive on interest rate. There were five bank-specific variables: NPL, loan concentration in risky sectors, loan growth, bank size and net interest margin in their study. These five variables had significant relationship with credit risk. Loan growth and loan concentration in risky sectors had positive effects as well. Bank size had a negative effect on credit risk.

By testing the influence of risk factors in determining banks' performance, the study by Angbazo (1997) found that default risk is a determinant of banks' net interest margin (NIM) and the NIM of super- regional banks and regional banks are sensitive to interest rate risk as well as default risk. By investigating the determinants of NIM for 614 banks of 6 European countries and US from 1988 to 1995, the study finds that interest rate volatility has a positive significant impact on the banks performance (Angbazo, 1997).

2.4.2 Local Studies

Kithinji (2010) analysed credit risk management and profitability of commercial banks in Kenya and concluded that the bulk of the profits of commercial banks was not influenced by the amount of credit and non-performing loans suggesting that other variables other than credit and non-performing loans had an impact on profits. Muasya (2009) analyzed the impact of non- performing loans on the performance of

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the banking sector in Kenya in the time of global financial crises. The findings confirmed that non- performing loans do affect commercial banks in Kenya.

Wanjira (2010) studied the relationship between non- performing loans management practices and financial performance of commercial banks in Kenya. The study concluded that there was a need for commercial banks to adopt non-performing loans management practices. Kimutai, (2006) investigated risk management in the Kenya Oil industry. The study established that the Working Capital (WC) requirement had gone up because of rising crude prices and upfront taxes payments and secondly unit margins had shrunk overtime. As a survival strategy the industry was forced to diversify to other means and ways to stay afloat. From the foregoing, oil sector due to its nature had to engage in credit for market share and sales volume. The multiplier effect was credit risk coupled with high liquidity needs.

2.5 Summary of Literature Review

The concept of risk management involves studying the various ways by which businesses and individuals raise money, as well as how money is allocated to projects while considering the risk factors associated with them. Since, most of the previous studies are theoretical; the current study aims to fill the gap in the literature by focusing on the risk management practices of the Islamic banks and linking the practices with the financial performance of the Islamic banks.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the research design, the population, the sampling techniques that was used in the study, sources of data and data collection procedures. Data analysis methods are also discussed.

3.2 Research Design

For the purpose of this study, the research design that was used is descriptive survey research design. The study used a descriptive research design. Mugenda and Mugenda, (2008) stated that the descriptive research design is a method which enables the researcher to summarize and organize data in an effective and meaningful way. The design was appropriate for this study as it helped to describe the state of affairs as they exist without manipulation of variables which was the aim of the study (Kothari, 2004). A descriptive study determines the frequency with which something occurs and investigates the relationship between two or more variables, and in this case, the study investigated the effect of risk management on the financial performance of Islamic banks.

3.3 Target Population

Population is the aggregate of all that conforms to a given specification (Mugenda & Mugenda 2003). In other words, population refers to an entire group of individual's,

events or objects having a common observable characteristic. The target population was seven commercial banks offering Islamic Banking in Kenya. For the purpose of this study the researcher focussed on the two fully fledged Islamic banks in Kenya and five commercial banks offering Islamic banking products.

Census technique was used to include all the seven banks practicing Islamic banking, namely the two fully fledged Islamic banks in Kenya and five commercial banks offering Islamic banking products. Census sampling technique was appropriate for this study as the population of banks being sought was small and therefore accessible. Cooper and Schindler (2003) also indicate that census sampling technique frequently minimizes the sampling error in the population. This in turn increases the precision of the estimation methods used.

3.5 Data Collection

For the purpose of this study, the researcher used secondary data. The secondary data sought included: return on assets, liquidity ratio, ratio of interest sensitive assets, value of interest sensitive liabilities, regulatory capital, total risk weighted assets, and total bank assets. The secondary data was obtained from the published annual reports spanning five years (2010 - 2014) for the Islamic banks and conventional banks with Islamic windows in Kenya. The study adopted panel data model in data collection and analysis.

The researcher also collected primary data in the event that some of the banks had not disclosed their respective investment in risk management being applied in each bank

in terms of insolvency risk, interest sensitivity ratio, capital adequacy, size of the bank and operating efficiency. The primary data was collected using self-administered questionnaires which sought information from the finance managers and risk managers of the respective Islamic and commercial banks. The questionnaire collected information on the risk management for the five year period (2010-2014).

3.6 Data Analysis

Data collected was edited, coded and classified into different components to facilitate a better and efficient analysis. In analysing the quantitative data, the study used descriptive statistics using Statistical Package for Social Sciences (SPSS Version 18.0). Measures of central tendency (mean), measures of dispersion (standard deviation), frequencies and percentage were applied for quantitative variables (Kothari, 2004). Tables and other graphs were used as appropriate to present the data findings. Qualitative data was analysed using content analysis, through developing a thematic framework from the key issues, concepts and themes emanating from the open ended questions (Nsubuga, 2000).

3.6.1 Regression Model

The regression model specification was as follows;

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$. Where; ε = error, α = constant and β = coefficient of independent variable

Table 3.1 Study Variables

	Variables	**Measure**
Y	Financial performance	ROA (Return on Assets) = [net income / total assets]
X_1	credit-risk	[NPLs / Financing Book]
X_2	insolvency risk	liquidity ratio= [liquid assets / total deposits]
X_3	interest sensitivity ratio	[ratio of interest sensitive assets/ interest sensitive liabilities]
X_4	capital adequacy	[core capital / total risk weighted assets]
X_5	operating efficiency	operating expenses/ net operating income
X_6	control variables	size of the of the bank

As it was difficult to isolate the above variables specific to Islamic windows in conventional commercial banks, the researcher sought this information from the finance managers and risk managers of the respective conventional commercial banks. In addition, the researcher used the ratio of investment in Islamic window to total assets to allocate the respective variables among the conventional commercial banks being investigated.

As explained by Kothari (2004), the multiple regression model was used to determine the significance of each study's independent variable in affecting the financial performance of Islamic banks in Kenya. The significance of each independent variable was determined by the t-test (Kothari, 2004).

CHAPTER FOUR: DATA ANALYSIS, INTERPRETATION AND PRESENTATION

4.1 Introduction

This chapter presents data analysis and interpretation. The study sought to assess the effect of risk management on the financial performance of Islamic banks in Kenya. The study utilized secondary data obtained from the published annual reports spanning five years (2010-2014) for the Islamic banks in Kenya. Data was collected based on the variables of the study, that included, credit-risk, isolvency risk, interest sensitivity ratio, capital adequacy, operating efficiency, and size of the Islamic banks.

4.2 Financial Performance

The study sought to establish the financial performance of Islamic banks in Kenya from 2010 to 2014. Financial performance of Islamic banks was measured using Return on Assets using the formula: ROA (Return on Assets) = [net income / total assets]. The findings are as indicated in Table 4.2 below.

Table 4.2 Financial Performance (ROA)

Year	N	Mean	Std. Deviation
2010	7	2.53	1.082
2011	7	2.75	1.923
2012	7	3.48	1.692
2013	7	4.02	1.042
2014	7	4.54	1.016

The findings as shown in Table 4.2 indicate the trend of return on assets values over the 5 year period between 2010 and 2014. The lowest value for ROA was a mean of 2.53 in year 2010 while the highest value was a mean of 4.54 in year 2014. This represented a positive change in the ROA mean values of 2.01 over the 5 year period. The steady rise in ROA values over the 5 year period indicates that the financial performance of the Islamic banks has been on the increase over the last 5 years. On the other hand the standard deviation indicates small variation in the financial performance between various Islamic banks.

4.3 Credit-Risk

The study sought to establish the credit-risk of Islamic banks in Kenya from 2010 to 2014. Credit-risk of Islamic banks was measured using the formula: [NPLs / Financing Book]. The findings are as indicated in Table 4.3 below.

Table 4.3 Credit-Risk

Year	N	Mean	Std. Deviation
2010	7	8.6	1.201
2011	7	7.8	0.338
2012	7	6.9	0.685
2013	7	5.0	0.719
2014	7	4.1	1.134

Source: Financial Statements of Islamic Banks

According to the findings in Table 4.3 above, the credit-risk of Islamic banks was at a mean value of 8.6 in 2010. In a period of 5 years, however, the credit-risk of Islamic banks was at a mean value of 4.1. This was 52.3% drop in the credit-risk of Islamic banks. This implies that the credit-risk of Islamic banks had declined significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the decline in credit-risk of the same banks hence a negative effect of credit risk on performance of Islamic banks in Kenya. The variation in standard deviation indicates slight variation of credit-risk across all the 7 Islamic banks in Kenya.

4.4 Insolvency Risk

The study sought to establish the insolvency risk of Islamic banks in Kenya from 2010 to 2014. Insolvency risk of Islamic banks was measured using the formula: [liquidity ratio= [liquid assets / total deposits]. The findings are as indicated in Table 4.4.

Table 4.4 Insolvency Risk

Year	N	Mean	Std. Deviation
2010	7	2.6	1.201
2011	7	2.3	0.338
2012	7	2.1	0.685
2013	7	1.8	0.719
2014	7	1.5	1.134

Source: Financial Statements of Islamic Banks

According to the findings in Table 4.3 above, the insolvency risk of Islamic banks was at a mean value of 2.6 in 2010. In a period of 5 years, however, the insolvency risk of Islamic banks was at a mean value of 1.5. This was 42.3% drop in the insolvency risk of Islamic banks. This implies that the insolvency risk of Islamic banks had declined significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the decline in insolvency risk of the same banks hence a negative effect of insolvency risk on performance of Islamic banks in Kenya. The small variation in standard deviation indicates small variation of insolvency risk across all the 7 Islamic banks in Kenya.

4.5 Interest Sensitivity Ratio

The study sought to establish the interest sensitivity ratio of Islamic banks in Kenya from 2010 to 2014. Interest sensitivity ratio of Islamic banks was measured using the formula: [ratio of interest sensitive assets/ interest sensitive liabilities]. The findings are as indicated in Table 4.5 below.

Table 4.5 Interest Sensitivity Ratio

Year	N	Mean	Std. Deviation
2010	7	1.9	1.027
2011	7	1.8	1.122
2012	7	1.5	1.242
2013	7	1.3	1.034
2014	7	1.1	1.343

Source: Financial Statements of Islamic Banks

According to the findings in Table 4.3 above, the interest sensitivity ratio of Islamic banks was at a mean value of 1.9 in 2010. In a period of 5 years, however, the interest sensitivity ratio of Islamic banks was at a mean value of 1.1. This was 42.1% drop in the interest sensitivity ratio of Islamic banks. This implies that the interest sensitivity ratio of Islamic banks had declined significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the decline in interest sensitivity ratio of the same banks hence a negative effect of interest sensitivity ratio on performance of Islamic banks in Kenya. The small variation in standard deviation indicates slight variation of interest sensitivity ratio across all the 7 Islamic banks in Kenya.

4.6 Capital Adequacy

The study sought to establish the capital adequacy of Islamic banks in Kenya from 2010 to 2014. Capital adequacy of Islamic banks was measured using the formula: [core capital / total risk weighted assets]. The findings are as indicated in Table 4.6 below.

Table 4.6 Capital Adequacy

Year	N	Mean	Std. Deviation
2010	7	11.2	1.401
2011	7	14.6	0.214
2012	7	19.3	0.313
2013	7	22.7	0.627
2014	7	22.9	1.152

Source: Financial Statements of Islamic Banks

According to the findings in Table 4.3 above, the capital adequacy of Islamic banks was at a mean value of 11.2 in 2010. In a period of 5 years, however, the capital adequacy of Islamic banks was at a mean value of 22.9. This was 104.5% increase in the capital adequacy of Islamic banks. This implies that the capital adequacy of Islamic banks had improved significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the improvement in capital adequacy of the same banks hence a positive effect of capital adequacy on performance of Islamic banks in Kenya. The small variation in standard deviation indicates small variation of capital adequacy across all the 7 Islamic banks in Kenya.

4.7 Operating Efficiency

The study sought to establish the operating efficiency of Islamic banks in Kenya from 2010 to 2014. Operating efficiency of Islamic banks was measured using the formula:

[operating expenses/ net operating income]. The findings are as indicated in Table 4.7 below.

Table 4.7 Operating Efficiency

Year	N	Mean	Std. Deviation
2010	7	2.6	0.103
2011	7	3.6	0.131
2012	7	4.3	0.181
2013	7	5.7	0.112
2014	7	8.1	1.233

Source: Financial Statements of Islamic Banks

According to the findings in Table 4.3 above, the operating efficiency of Islamic banks was at a mean value of 2.6 in 2010. In a period of 5 years, however, the operating efficiency of Islamic banks was at a mean value of 8.1. This was 211.5% increase in the operating efficiency of Islamic banks. This implies that the operating efficiency of Islamic banks had improved significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the improvement in operating efficiency of the same banks hence a positive effect of operating efficiency on performance of Islamic banks in Kenya. The small variation in standard deviation indicates small variation of operating efficiency across all the 7 Islamic banks in Kenya.

4.8 Size of Bank

The study sought to establish the size of the Islamic banks in Kenya from 2010 to 2014. Size of the Islamic banks was measured using the natural log. The findings are as indicated in Table 4.8 below.

Table 4.8 Size of Bank

Year	N	Mean (natural log) millions	Std. Deviation
2010	7	200.6	4.018
2011	7	257.8	4.814
2012	7	506.9	5.314
2013	7	705.0	6.114
2014	7	1,004.1	10.114

Source: Financial Statements of Islamic Banks

According to the findings in Table 4.3 above, the size of the Islamic banks was at a mean value of 200.6 in 2010. In a period of 5 years, however, the size of Islamic banks was at a mean value of 1,004.1. This was 400.5% increase in the size of Islamic banks. This implies that the size of the Islamic banks had improved significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the improvement in the size of the same banks hence a positive effect of size of the Islamic banks on performance of Islamic banks in Kenya. The high variation in standard deviation indicates high variation of the size of the Islamic banks across all the 7 Islamic banks in Kenya.

4.9 Inferential Statistics

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 22) to code, enter and compute the measurements of the multiple regressions.

Table 4.9 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1	. 969[a]	.939	.921

Source: Financial Statements of Islamic Banks

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable, from the findings in table 4.9 above the value of adjusted R squared was 0.939 an indication that there was variation of 93.9% on the financial performance of Islamic and selected commercial banks due to changes in credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency at 95% confidence interval. This shows that 93.9% changes in financial performance of Islamic and selected commercial banks could be accounted for by credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency. R is the correlation coefficient which shows the relationship between the study variables, from

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the findings shown in table above there was a strong positive relationship between the study variables as shown by 0.969.

From the ANOVA statistics, the processed data, which is the population parameters, had a significance level of 0.015 which shows that the data is ideal for making a conclusions on the population's parameter as the value of significance (p-value) is less than 5%. The calculated was greater than the critical value (2.262 <3.869) an indication that credit risk, insolvency risk , interest rate sensitivity , capital adequacy, size of the banks and operational efficiency significantly affected the financial performance of Islamic bank. The significance value was less than 0.05, an indication that the model was statistically significant.

Table 4.10 ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.323	2	.202	2.262	.0015[a]
	Residual	5.408	3	.246		
	Total	6.898	5			

a. Predictors: (Constant), credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency

b. Dependent Variable: financial performance of Islamic Banks

From the ANOVA statistics, the processed data, which is the population parameters, had a significance level of 0.015 which shows that the data is ideal for making a

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conclusions on the population's parameter as the value of significance (p-value) is less than 5%. The calculated was greater than the critical value (2.262 <3.869) an indication that credit risk, insolvency risk , interest rate sensitivity , capital adequacy, size of the banks and operational efficiency significantly affected the financial performance of Islamic bank. The significance value was less than 0.05, an indication that the model was statistically significant.

Table 4.11 Multiple Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.298	.453		2.165	.006
Credit Risk	-.231	.126	-.245	-3.834	.001
Insolvency risk	-.281	.114	-.031	-2.246	.016
Interest sensitivity	-.237	.160	-.198	-2.479	.012
Capital adequacy	.239	.145	.008	2.065	.023
Size of the bank	.231	.104	.181	2.246	.011
Operating efficiency	.204	.240	.230	1.850	.028

Source: Financial Statements of Islamic Banks

From the data in shown in table 4.10 above, the established regression equation was:

$Y = 0.298 - 0.231 X_1 - 0.281 X_2 - 0.237 X_3 + 0.239 X_4 + 0.231 X_5 + 0.204 X_6.$

From this regression equation it was revealed that holding credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency to a constant zero, financial performance of Islamic banks would be at 0.298. further,

it was established that, a unit increase in credit risk would lead to an decrease in financial performance of Islamic banks by a factor of 0.231, unit increase in insolvency risk would lead decrease in financial performance of Islamic banks by a factor of 0.281, a unit increase in interest rate sensitivity would lead to an decrease in financial performance of Islamic banks by a factor of 0.237, unit increase in capital adequacy of the banks would lead to an increase in financial performance of Islamic banks by a factor of 0.239, a unit increase in size of the bank would lead to an increase in the financial performance of Islamic banks by a factor of 0.231, further unit increase in operation efficiency of the banks would lead to increase in financial performance of Islamic banks by a factor of 0.204.

Therefore, credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency significantly affected the financial performance of Islamic banks in Kenya.

At 5% level of significance and 95% confidence level, operation efficiency had a 0.028 level of significance; capital adequacy showed a 0.023 level of significance, insolvency risk showed a 0.016 level of significance, interest rate sensitivity had a 0.012 level of significance, size of the bank had 0.011 level of significance while credit risk showed 0.001 level of significance, hence the most significant factor is credit risk. Overall credit risk had the greatest effect on the financial performance of Islamic banks. All the variables were significant ($p < 0.05$).

4.10 Discussion of Findings

From the correlation coefficient, the study found that there was a strong positive relationship between the study variables. The study further revealed that credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency significantly affected the financial performance of Islamic banks. The finding of this study concur with the finding of Bodie et al., (2008), who explained that earning and pay-out policy of a firm, where financial managers try to ensure a smooth dividend payment over time. When returns are excessively high, managers usually decide to plough back part of it as capital. With these two cases, it is expected that a positive association exists between capital position and profitability of a bank as indicated in the study as ROA.

The study established the following regression analysis to determine the effect of risk management on financial performance of Islamic banks in Kenya: $Y = 0.298 - 0.231 X1 - 0.281 X2 - 0.237 X3 + 0.239 X4 + 0.231 X5 + 0.204 X6$.

From this regression equation it was revealed that credit risk, insolvency risk and interest rate sensitivity had a negative relationship with financial performance of Islamic banks in Kenya. The study also found that there was a positive relationship between capital adequacy, size of the banks, operational efficiency and financial performance of Islamic banks. The finding of this study concur with the finding of Saunders and Wilson (2001) prove a nexus between bank capital and bank charter value using bank profitability as a measure of future prospect of the banking firm.

This points out that a better performing bank with good returns on asset and consistent management policies can be well capitalized for future operations.

The finding of the study are inconsistent with the finding of Cebenoyan et al., (1999), and Saunders and Wilson (2001), who found that there was a negative impact of ROA on CAR, going against the theoretical expectation and contradicting the research findings. Juxtaposing the essence of risk management in banks, and the effectiveness of the Basel framework for risk management, there is a substantial argument against the efficiency of the framework itself. Empirical findings from several studies such as Francis and Osborne (2009), Borio and Drehmann (2009) and Clement (2010), including this has shown that risk management efficiency in banks is co-determined by macroeconomic factors which vary with cycles. These macroeconomic factors have not been well integrated into the Basel guide. Although credit ratings have been suggested to qualify sovereign risk, the core macro determinant of performance such as economic growth has been omitted.

CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the data findings on the effect of risk management on the financial performance of Islamic banks in Kenya. The conclusions and recommendations are drawn there to. The chapter is therefore structured into summary, conclusions, recommendations, limitations, and areas for further research.

5.2 Summary

The objective of the study was to assess the effect of risk management on the financial performance of Islamic banks in Kenya. Secondary Data was collected from Central Bank and banks financial reports where descriptive statistics and multiple regression analysis were used in the data analysis.

The study established that there was a positive change in the ROA mean values of 2.01 over the 5 year period. The steady rise in ROA values over the 5 year period indicates that the financial performance of the Islamic banks has been on the increase over the last 5 years. In addition, there was 52.3% drop in the credit-risk of Islamic banks. This implies that the credit-risk of Islamic banks had declined significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the decline in credit-risk of the

same banks hence a negative effect of credit risk on performance of Islamic banks in Kenya. There was 42.3% drop in the insolvency risk of Islamic banks. This implies that the insolvency risk of Islamic banks had declined significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the decline in insolvency risk of the same banks hence a negative effect of insolvency risk on performance of Islamic banks in Kenya.

The study revealed a 42.1% drop in the interest sensitivity ratio of Islamic banks. This implies that the interest sensitivity ratio of Islamic banks had declined significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the decline in interest sensitivity ratio of the same banks hence a negative effect of interest sensitivity ratio on performance of Islamic banks in Kenya. There was 104.5% increase in the capital adequacy of Islamic banks. This implies that the capital adequacy of Islamic banks had improved significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the improvement in capital adequacy of the same banks hence a positive effect of capital adequacy on performance of Islamic banks in Kenya. In addition, there was 211.5% increase in the operating efficiency of Islamic banks. This implies that the operating efficiency of Islamic banks had improved significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the improvement in operating efficiency of the

same banks hence a positive effect of operating efficiency on performance of Islamic banks in Kenya.

The study established a 400.5% increase in the size of Islamic banks. This implies that the size of the Islamic banks had improved significantly over the 5 year period between 2010 and 2014. The increased financial performance of Islamic banks in Kenya could therefore be linked to the improvement in the size of the same banks hence a positive effect of size of the Islamic banks on performance of Islamic banks in Kenya.

From the multiple regression analysis finding in the adjusted R squared the study found that 93.9% variation on financial performance of Islamic banks could be accounted for by credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency. From the correlation coefficient , the study found that there was a strong positive relationship between the study variables.

From the ANOVA finding, the study found that the model had a significance level of 0.015 which shows that the data is ideal for making conclusions on the population's parameter as the value of significance (p-value) is less than 5%. The study further revealed that credit risk, insolvency risk, interest rate sensitivity, capital adequacy, size of the banks and operational efficiency significantly affected the financial performance of Islamic banks. The study established the following regression analysis to determine the effect of risk management on financial performance of Islamic banks in Kenya:

$$Y = 0.298 - 0.231\ X_1 - 0.281\ X_2 - 0.237\ X_3 + 0.239\ X_4 + 0.231\ X_5 + 0.204\ X_6.$$

From this regression equation it was revealed that credit risk, insolvency risk and interest rate sensitivity had a negative relationship with financial performance of Islamic banks. The study also found that there was a positive relationship between capital adequacy, size of the banks, operational efficiency and financial performance of Islamic banks. the most significant factor is credit risk. Overall credit risk had the greatest effect on the financial performance of Islamic banks.

5.3 Conclusion

From the findings the study concludes that risk management positively influenced the financial performance of Islamic banks in Kenya, as it was found that there was a strong positive relationship between risk management and financial performance of Islamic banks in Kenya.

The study also found that there was a negative relationship between credit risk, insolvency risk, interest rate sensitivity and financial performance of Islamic banks. Thus the study concludes that credit risk, insolvency risk, interest rate sensitivity negatively affect the financial performance of Islamic banks.

The study also revealed that there was a positive relationship between capital adequacy, size of the banks, operational efficiency and financial performance of Islamic banks. Thus the study concludes that capital adequacy, size of the banks, operational efficiency positively influences the financial performance of Islamic

banks. The most significant factor is credit risk. Overall credit risk had the greatest effect on the financial performance of Islamic banks in Kenya.

5.4 Recommendations

From the study conclusion, the study recommends that there is need for the Islamic banks to effectively manage their risk as it was found that risk management positively influences financial performance of Islamic banks.

The study further recommends that there is need for the management of Islamic banks to constantly check their banks' exposure to credit risk, insolvency risk, interest rate sensitivity, as it was revealed that credit risk, insolvency risk, interest rate sensitivity negatively affect the financial performance of Islamic banks.

There is need for the for the Islamic banks to enhance their capital adequacy, size of the banks and operational efficiency, as it was revealed that capital adequacy, size of the banks and operational efficiency positively influence the performance of Islamic banks.

5.5 Limitations of the Study

In attaining its objective the study was limited to 5 years period starting from year 2010 to year 2014.

The study was limited to secondary data collected from the Islamic Banks Financial reports and Central banks of Kenya. While the data was verifiable since it came from

the CBK and Islamic Banks publications, it nonetheless could still be prone to shortcomings such as earnings management.

The study was limited to determining the effect of risk management on financial performance of Islamic banks in Kenya. The study was based on a five year study period from the year 2010 to 2014. A longer duration of the study will have captured periods of various economic significances such as booms and recessions. This may have probably given a longer time focus hence giving a broader dimension to the problem.

5.6 Areas for Further Research

Similar study should be done in other countries for comparison purposes and to allow for generalization of findings on the the effect of risk management on the financial performance of Islamic banks.

The study recommends that a study should be conducted to explore the challenges facing risk management among Islamic banks in Kenya.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE

I am Benjamin Maosa, a student at the University of Nairobi taking a master's degree of Business Administration. As a requirement for the fulfilment of the Masters' degree, I intend to carry out a research on "**THE EFFECT OF RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF ISLAMIC BANKS IN KENYA**." This questionnaire is therefore for the purpose of the academic research only and the information gathered will be treated confidentially. Please answer all the questions provided as honestly as possible, to the best of your knowledge.

Do I have your consent to proceed?   Yes [ ]   No [ ]

Kindly give the amount in figures of the following areas;

		2010	2011	2012	2013	2014
Return on Assets	Net income					
	Total assets					
Credit-Risk	gross Loans					
	Total asset					
Insolvency risk	liquid assets					
	current liabilities					
Interest sensitivity ratio	ratio of Interest sensitive assets					
	interest sensitive liabilities					

Capital adequacy	Regulatory Capital					
	Total Risk Weighted Assets					
size of the bank	total assets in millions					
Operating efficiency	Operating expenses					
	net operating income					

Thank you for your time and participation

APPENDIX 2: LIST OF COMMERCIAL BANKS OFFERING ISLAMIC BANKING IN KENYA

1. First Community Bank Limited

2. Gulf African Bank

3. Kenya Commercial Bank

4. Barclays Bank of Kenya

5. Standard Chartered Bank

6. Chase Bank

7. National Bank