

A Comparative Study on the Financial Performance of  
Islamic Banks and Conventional Banks in Kenya

By

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D61/P/7338/2005

A Management Research Project Submitted in Partial

Fulfillment of Degree of

Master of Business Administration Degree (MBA),

School of Business

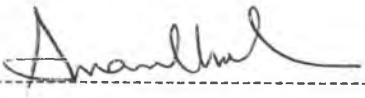
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October 2009

## DECLARATION

This research project is my original work and has not been submitted for a degree course in this or any other university.

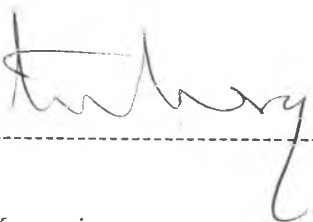
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## ACKNOWLEDGEMENT

In the name of Allah, the most Beneficent, the most Merciful. All praise is due to Allah, the Lord of the Worlds. I am grateful to the Almighty Who gave me the good health and energy to accomplish my project in due time. It is with great delight that I extend my appreciations and give due credit to my supervisors, Mr. James Karanja for his guidance and corrections during the writing of this project.

My acknowledgement would be incomplete without extending my gratitude to my colleagues and friends both at work and at the University for their encouragement in completing this course. Particularly, the KIA CEO, Dr. Margaret Kobia for facilitating my study. Last but not least, I extend my gratitude to my entire family for moral support and prayers for my successful completion of the project.

## ABSTRACT

Islamic banking in Kenya started in 2007 with the amendment of Section 53 of the Banking Act Chapter 488 of laws of Kenya in 2006. The amendment was intended to promote the introduction of innovative products in the banking sector including the vehicle for providing Sharia'h compliant financial products. Islamic banking system is characterized by interest free banking and the avoidance of transactions prohibited by Shari'ah and unethical practices. The interest free principle is replaced by the principle of Profit-and-Loss sharing (PLS). Since 2007, two Islamic banks have opened their doors to the public especially targeting the Muslim community by providing Shari'ah compliant financial products. Conventional banks have realized the value of Islamic financing techniques and begun to incorporate them in their lending practices or via separate Islamic windows. In Kenya, Five conventional banks have also taken advantage of the amendment by providing Shari'ah compliant financial products. Yet, the added services Islamic banks offer is a societal one in complying with Shariah principles and at the same time compete with conventional banks. This raises the question as to how Islamic banks perform compared to their conventional counterparts.

The aim of this study is to evaluate and compare the performances of Islamic banks and conventional banks in Kenya. The study evaluates performance of the Islamic bank in profitability, liquidity, risk, and efficiency for the period of 2008-2009. T-test and F-test were used in determining the significance of the differential performance of the two types of banks. The study found that on average the Islamic banks in Kenya are less profitable and less efficient but more solvent and less risky than the average conventional banks in Kenya. The reasons are due to the facts that conventional banks in Kenya have longer history and experience in doing banking business as compared to Islamic banks which started business two years ago.

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# **1 CHAPTER ONE: INTRODUCTION**

## **1.0 Introduction**

This chapter introduces the concept of Islamic banking system and compares it to conventional banking. The chapter concludes with the introduction of the problem statement, the objectives of the study and the significance of the study to different stakeholders.

## **1.1 Background of the Study**

Recently, two major developments in the global financial markets and local financial sectors are of major significance to Islamic banking which has put Islamic banking in focus. The recent global financial crisis resulting from speculation on the derivatives markets in the name of subprime mortgages and securitization of adjustable rate mortgages have made investors look for alternatives to the conventional financial markets [(Sidiqqi,2008 and (Chapra, 2009)]. The other is unrelated, but equally of significance is the amendment of Section 53 of the Banking Act Chapter 488 of laws of Kenya in 2006 which enabled the Minister of Finance to exempt institutions from provisions of Section 12 of the Act that prohibited trading and holding of property plant and equipment. This amendment was intended to promote the introduction of innovative products in the banking sector, including Islamic banking products that may require an institution to hold property plant and equipment such as the case of mortgage financing or goods and commodities in the case of consumer financing. This culminated in the formation of Islamic banks and Islamic windows for conventional banks in Kenya (Ondari, 2008).Therefore, the incorporation and operation of two Islamic banks in Kenya has opened an avenue for raising Shari'ah compliant funds for the Muslim community. The performance of Islamic bank is crucial for the future survival of Islamic banks in Kenya.

Globally, Islamic banks are growing at between 10%-15% per annum with global assets in excess of \$1 Trillion and operating within more than sixty countries across the world especially in the Middle Eastern and Asian region countries (El-Gamal, 2006). Sudan and Iran have been noted for having converted their entire banking system to Islamic banking while in some other countries conventional banking is still operating alongside the Islamic banking. It is the fastest growing segment of the credit market in the Muslim countries with its market share growing from 2% in the late 1970s to about 15% today. Its gradual and steady spread over time across the world is a clear sign of success and the high growth rate that is the hallmark of this emerging market (Aggarwal and Yousef, 2000).

The popularity and appreciation of Islamic banking by Muslims and by non-Muslims in Muslim and non-Muslim countries has been evidenced by the spread of most Islamic banks within Middle Eastern and Emerging Countries and many universal banks in Developed Countries increased demand of Islamic financial products (Yudistira, 2003). The Islamic banking institutions' relative stability in the current recession has attracted a lot of attention even from the Vatican. The Vatican endorsed the Islamic finance rules as a way to restore confidence in the conventional financial system in response to the global economic crisis. As the result of confidence in the Islamic financial system in the face of the financial crisis it is estimated that Islamic banking will be growing at a rate of 10-15% per year and with signs of consistent future growth (Chapra, 2009).

There is need for Islamic banks to compete for funds with conventional banks in most countries. They also offer societal services in that they have to comply with Shariah principles (Brown, 2007). Muslims are expected to constantly observe Islamic guidelines with regard to their spiritual, political, social, economic, moral and all other aspects of their

daily transactions and activities. In economic and financial transactions, Islam prohibits dealing in interest and unethical transactions like alcohol, pork, gambling, and pornography in accordance with Shari'ah - the Islamic Law requirements (Gulf African Bank, 2007).

Financial systems based in Islamic tenets are dedicated to the elimination of the payment and receipt of interest in all forms. The fundamental sources of Islam are the Holy Qur'an and the sunna, which is now synonymous with the teachings and traditions of the Prophet Muhammad (peace be upon him) as transmitted by the narrators of authentic tradition. Both of these sources treat interest as an act of exploitation and injustice and as such it is inconsistent with Islamic notions of fairness and property rights. Islamic banking thus derives its specific *raison d'être* from the fact that there is no place for the institution of interest in the Islamic order (Hassan & Lewis, 2007).

### **Islamic Banking and Finance**

Islamic banking has been defined as banking in accordance with the ethos and value system of Islam and governed, in addition to the conventional good governance and risk management rules, by the principles laid down by Islamic law (Shari'ah). Islamic banking system is characterized by interest free banking and the avoidance of transactions prohibited by Shari'ah and unethical practices whose aim is the achievement of the goals and objectives of an Islamic economy. Islamic economics is referred to as the body of knowledge which helps realize the well-being of human beings through allocation and distribution of scarce resources that is in conformity with Islamic teachings without unduly curbing individual freedom or creating continued macroeconomic and ecological imbalances (Chapra, 1996). A simplified definition by Ross (2007) refers to Islamic finance as means by which corporations in the



Muslim world, including banks and other lending institutions, raise capital and permissible investments in accordance with Shari'ah.

The Muslim scholars have generally interpreted Riba to represent interest which literally means an excess. It is interpreted as any unjustifiable increase of capital whether in loans or sales and is characterized by any positive, fixed predetermined rate tied to the maturity and the amount of principal. Shari'ah demands that borrowers and lenders share rewards as well as losses in an equitable fashion. The common Islamic bank's ways of raising revenue as an alternative to interest is through financial intermediation of profit sharing (Mudharabah), joint venture (Musharakah), cost plus (Murabahah), and leasing (Ijarah) contracts (Ariff, 1988).

Under the Shari'ah economy the provider of financial capital and the entrepreneur share business risks in return for shares of the profits. The supplier of funds becomes investor instead of creditor in the Mudharabah and Musharakah arrangements. Instead of loaning the buyer money to purchase an item, an Islamic bank buys the item itself from the seller, and re-sell it to the buyer at a profit, while allowing the buyer to pay the bank in installments under Murabaha arrangements (Sidiqqi, 2008).

Islamic banking and conventional banking differs in many ways which are worth noting. First, the conventional banking follows conventional interest-based principle, the Islamic banking is based on interest free principle and the principle of Profit-and-Loss sharing (PLS) in performing their businesses as intermediaries (Arif, 1988). Second, Islamic bank shares profit and loss with its depositors which introduce the element of mutuality in Islamic banking and makes its depositors customers with some ownership right in it (Dar and Presley, 2000).

Third, Islamic PLS principle creates the relationship of financial trust and partnership between borrower, lender, and intermediary (Yudistira, 2003). Fourth, the way depositors' funds in productive direct investments are treated by the two types of banks is another difference; to the conventional bank it is basically a relationship between a borrower and a lender of funds while to an Islamic bank it is a partnership with its depositors and at the same time a partnership with entrepreneurs.

Fifth, the difference between the two banking systems lies in terms of their governance structure. Islamic banks observe a different set of rules, those of the Holy Qur'an and the expectations of Muslim community of islamically acceptable financing modes (Suleiman, 2001). Sixth, Islamic banks unlike non-Islamic banks seek a "just" and "equitable distribution of resources" that is based on Islamic Shari'ah (Suleiman 2001). Islamic banking investment and funding decisions avoid interest based transactions (Riba), activities involving speculation (Gharar), the production of goods and services prohibited by Islamic Shari'ah (Haraam) and they collect Islamic tax (Zakat) on behalf of Islamic state.

### **Islamic Banking in Kenya**

The Banking Act Chapter 488 of Laws of Kenya of 27th October, 1995 defines bank as a company which carries on, or proposes to carry on, banking business in Kenya and includes the Co-operative Bank of Kenya Limited but does not include the Central Bank. The Act further defines banking business as the accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice; the accepting from members of the public of money on current account and payment on and acceptance of cheques; and the employing of money held on deposit or on current account, or any part of

the money, by lending, investment or in any other manner for the account and at the risk of the person so employing the money.

The Banking Sector is composed of the Central Bank of Kenya, as the regulatory authority and the regulated; Commercial Banks, Non-Bank Financial Institutions and Forex Bureaus. As at 31<sup>st</sup> December 2008 the banking sector comprised 45 institutions, 43 of which were commercial banks and 2 mortgage finance companies, and 120 Foreign Exchange Bureaus. Commercial banks and mortgage finance companies are licensed and regulated under the Banking Act, Cap 488 and Prudential Regulations issued there under. Foreign Exchange Bureaus are licensed and regulated under the Central Bank of Kenya Act, Cap 491 and Foreign Exchange Bureaus Guidelines issued hereunder (CBK, 2008). Included in these 43 commercial banks are two fully Shari'ah compliant banks: First Community Bank and Gulf African Bank and five conventional banks offering Shariah compliant financial products.

The First Community Bank Limited started operation in June 2007 and the Gulf African Bank as a second licensed Islamic Bank in Kenya in September 2007. The bank started operations with two branches in January 2008. La Riba account of Barclays Bank was the first Shari'ah compliant account established in December 2005 was the first ever Shari'ah compliant account in Kenya that attracted nearly Sh560million from traders over the past year. Other conventional banks which offer Shari'ah compliant financial services and products are Kenya Commercial Bank (KCB), K-rep Bank, Imperial Bank and Dubai Bank (Odhiambo, 2007).

Islamic Banks in Kenya are similar to the conventional banks in many aspects and are registered under the Banking Act of Kenya and supervised by the Central Bank of Kenya. They are required to comply with all the requirements of the Act just like the other banks.

However, differences arise in the way customers' deposits and the borrowers' financings are treated. The two types of banks are similar in the services they provide like the taking of deposits from customers and issuing of current accounts and savings accounts to individuals and businesses, in cashing cheques, by facilitating money transactions such as wire transfers and cashier's checks, ATM cards, and debit cards (Ondari, 2008). A scrutiny of the revised Banking Act Chapter 488 shows that there is no difference between the regulations governing the Islamic banks and conventional banks in Kenya.

Evaluating overall performance and monitoring of banks' financial condition is important to depositors, owners, potential investors, managers and regulators. The bank regulators use financial ratios to help evaluate a bank's financial performance and the quality of its management. Low profit could hurt Islamic banks as they rely solely on the profit and loss sharing (PLS) principle to market their financial products. PLS is a form of partnership, whereby owners and investors serve as business partners by sharing profits and losses on the basis of their capital share, labour and managerial expertise invested. There can be no guaranteed rate of return in such a case, although some investments (such as mark-up) provide more stable returns than others (such as *mudaraba*). The justification for the PLS financier's share in profit is their efforts and the risks undertaken, making it legitimate in Islamic Shari'ah (Choudhry, 2007).

## **1.2 Statement of the problem**

An Islamic financial system can play a vital role in the economic development of Islamic and non-Islamic countries by mobilizing dormant savings that are being intentionally kept out of interest based financial channels and facilitating the development of capital markets (Zaher and Hassan, 2001). Yet, Islamic financial markets are operating far below their potential

because Islamic banking by itself cannot take root in the absence of the other necessary components of an Islamic financial system. A number of limitations and challenging issues will have to be addressed before any long term strategy can be formulated (Naughton, 2000).

Conventional financial institutions are now realizing the value of Islamic financing techniques and beginning to incorporate them, either in their lending practices or via separate Islamic departments (or 'windows'). Hence conventional banks now compete with Islamic institutions both directly and through their own Islamic operations. This raises the question as to how Islamic banks perform compared to their conventional counterparts (Brown et al., 2007). Therefore, there is need to study performance differences between the two types of bank.

Since both shareholders and depositors in Islamic banks are the residual claimants to the Islamic bank's profits, bank profitability designated as the measure of bank performance is of significant importance to these two stakeholders. Performance evaluation of Islamic banks is also of considerable importance to other stakeholders of the bank. Managers are keen to know the outcomes of previous management decisions as well as to evaluate whether to improve loan service or deposit service or both to improve its finance. Bank regulators who are responsible for the safety and soundness of the banking system and preserve public confidence monitor banks' performance. Persistent monitoring of performance is important as existing problems may remain unnoticed and can lead to financial failure in the future [(Samad & Hassan, 2000) and (Hassan & Bashir, 2003)].

The Central Bank of Kenya uses the CAMEL rating system to assess the soundness of financial institutions which is an acronym for Capital Adequacy, Asset quality, Management Quality, Earnings and Liquidity (CBK, 2008). However, other financial ratios classified according to the information they provide like the liquidity ratios, asset turnover ratios,

financial leverage ratios, profitability ratios have been frequently used to measure financial performance of banks.

According to Karbhari et al (2004) many of the key players in conventional banking markets, such as Citibank, ANZ, and HSBC, have begun to move into the field, providing Islamic banking through Islamic windows. They argued that many players have come into the market, and the provision of Islamic banking is no longer restricted only to Islamic institutions. They further argued that the competition in the Islamic banking field has been greatly increased and making it relatively difficult for new banking institutions to compete with the well-established conventional banks. As more players enter the field, the bigger challenge will be for the Islamic banks to survive. In our Kenyan situation the two Islamic banks are very young and relatively smaller in size in terms of capital base to compete effectively with already established conventional banks like Barclays Bank and Kenya Commercial Bank which started offering Islamic Windows. The operational efficiency and financial performance of Islamic bank is an important issue for the Islamic banking system. Innovation is the key to sustainable and competitive marketing advantage for the future growth of Islamic financial markets. Both innovation speed and innovation magnitude have beneficial effects on an institution's financial performance. Hence Islamic financial marketers should be responsive to the evolving needs of Islamic investors and borrowers (Edwardes, 1995). The Islamic banks can learn from successful conventional banks by employing appropriate Customer Relationship Management (CRM) strategies. There should also be intensive collaborative efforts among Islamic 'financial engineers' and shari'a scholars to accelerate the pace of innovation.

According to Moin, (2008), existing literature on Islamic banking showed various studies have been made on performance measurement of Islamic banks notably by Bashir (2000), Hassan & Bashir (2003), Samad & Hassan (2000), Rosly & Abu-Bakar (2003), Samad (1999), Samad (2004), Sufian (2007), Saleh & Rami (2006). However, the studies on the assessment of financial performance of Islamic banks and conventional banks in different countries have been captured by the existing literature on Islamic banking and finance. No studies, however, have been published on comparative analysis of financial performance of Islamic banks and conventional banks in Kenya. The aim of this study therefore, is to make a comparative study on financial performance of Islamic banks and conventional banks in Kenya.

### **1.3 Study Objectives**

The aim of this study is to evaluate the financial performance of Islamic Banks in Kenya and make comparison with the financial performance of conventional banks in Kenya.

### **1.4 Importance of the study**

The study will be of importance to the Management of the banks, the bank's regulators, the Shari'ah Supervisory Board, the banks' customers, the shareholders of the banks and the academicians as follows:

#### **1.4.1 The banks' Management**

Managers are keen to know the outcomes of previous management decisions as well as to evaluate whether to improve loan service or deposit service or both to improve its finance.

### **1.4.2 The Banks' Regulators**

The findings of this study could be used to inform the policy makers especially the Ministry of Finance in formulation of regulations to guide the Central Bank of Kenya in drafting a regulatory framework for guiding Islamic banks in enhancing performance. This will also be used to provide an in depth understanding of Islamic Banks' regulatory requirement and provide avenue for mutual regulatory framework for the banks' regulators and the Shari'ah Supervisory Board of Islamic banks. The study will provide framework to establish the independence of the Shari'ah boards through an overboard supervision by a centralized Shari'ah Board for the country and also provide basis for further amending the Banking Act to require additional compliance with Shari'ah.

### **1.4.3 Bank Depositors**

The findings will guide depositors in evaluating the performance of the Islamic banks and make informed decisions on their deposits as they are not entitled to fixed returns and the nominal values of their deposits are not guaranteed.

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## **2 CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

This Chapter discusses the performance evaluation and analyzes tools for determining bank performance. It also brings out various studies that have been carried out on the performance of Islamic banks and comparisons with conventional banks. Finally, the chapter concludes by giving the rationale for studying the topic selected.

### **2.1 The conventional banking model**

Hassan (2007) defined banks as commercial entities that engage in any or all of the various functions of banking (i.e., receiving, collecting, transferring, paying, lending, investing, dealing, exchanging, and servicing money and claims to money both domestically and internationally) and refers to institutions providing deposit facilities for the general public. Loans based on deposit funds provide financial support to a wide variety of business and industrial enterprises. Commercial banks accept deposits and use the proceeds to lend funds to consumers and businesses. The deposits represent a liability of the commercial bank and a financial asset owned by the depositor. The loan represents a liability of the borrowing entity and a financial asset of the commercial bank. The commercial bank has made a direct investment in the borrowing entity; the depositor effectively has made an indirect investment in that borrowing entity. Interest income and fee income are generated from mortgage lending and credit card financing.

Through the process of financial intermediation between savers and investors, they exert immense employment and income generation effects, which ultimately help in economic advancement and social welfare. By offering opportunities for investment and safe custody of

deposits, they stimulate the habit of saving and discourage hoarding or the unproductive use of surplus wealth, thus promoting investment and the growth of capital. A wise banking policy may go a long way toward mitigating the shocks of an economic crisis, while a banking system, if badly constructed or badly handled, is capable of inflicting great harm on trade and industry and may even upset the whole economy (Fabozzi & Petterson, 2003).

### **Interest and credit allocation**

In commercial banking the funds used for lending are mainly derived through the savings deposits for which the bank pays a certain percentage as interest to the depositors and recovers it from the borrowers when it lends. The interest paid by borrowers forms the cost of borrowing. Interest plays a pivotal role in the efficient allocation of capital through the force of demand and supply. The savers will provide capital at the price which is demanded by the investors for financing productive opportunities. The investors will seek financing at the marginal costs which equals to the marginal return from the productive activities. This is the equilibrium interest rate where funds are allocated efficiently to the most productive investment thus efficient allocation of capital. When capital is efficiently allocated through financing of productive opportunities the well-being of the consumers is achieved (Abdulgafoor, 1975).

Factors that affect the spread (risk premium) are (1) the issuer's perceived creditworthiness; (2) the term or maturity of the instrument; (3) provisions that grant either the issuer or the investor the option to do something; (4) the taxability of the interest received by investors; and (5) the expected liquidity of the issue. Credit risk refers to the risk that the issuer of a debt obligation may be unable to make timely payment of interest and/or the principal amount when it is due. The Term to Maturity refer to the price of a financial asset will

fluctuate over its life as yields in the market change and can be demonstrated by the price volatility of a bond is dependent on its maturity. The most common type of option in a bond issue is a call provision (Fabozzi & Petterson, 2003).

## **2.2 The Shari'ah Economy and Islamic Banking**

Islamic banking came into existence in 1963 on a small scale in a small town of Egypt whose success opened the doors for a distinct market for Islamic banking and finance. As a result, Islamic banking came into existence a moderate number of full-fledge Islamic banks in Arabic and Asian countries in 1970s. Islamic banks are now operating in more than sixty countries with assets base of over \$166 billion and a marked annual growth rate of 10%-15% with market share in Muslim countries that has grown from 2% in the late 1970s to about 15 % today (Aggarwal and Yousef, 2000).

The paying and receiving of interest in Islamic banking is substituted by profit-and-loss-sharing (PLS) contracts which is also a method of resource allocation. Major Islamic financing contracts by PLS finance are trustee finance (mudaraba), equity participation (musharaka) and 'mark-up' (Mudaraba) transactions. Interest-based financial transactions are forbidden and all finance is to be conducted on a profit-sharing basis. The business partnership technique of mudaraba was employed by Prophet Muhammad (peace be upon him) when he was agent (mudarib) for his wife Khadija and his second successor Umar ibin al-Khattab invested the money of orphans with merchants engaged in trade between Medina and Iraq (Hassan & Lewis, 2007).

The economic critique of the institution of interest offered by the Muslim scholars like Maududi was based on their challenges to the rationality of interest as fixed rate of return on financial capital and the prohibition of interest by the Holly Qur'an. In 1961, Maududi provided the economic rationale for the prohibition of interest and defended trade by

comparing it with interest in context of equitable distribution of resources and efficient management of risk. In interest-based transactions, risk is transferred to the borrower so that all interest-bearing assets become risk free. This was considered socially inequitable and economically inefficient from the Islamic economic stand point. Trade was considered more equitable and efficient than conventional loan in that it conforms to the natural phenomenon of uncertainty (Moin, 2008).

Maududi (1987) questioned the rational of the principle, logic, cannon of justice and the soundness of the economic principle that could justify that those who spend their time, energy, capacity and resources, and whose efforts and skills make a business thrive, are not guaranteed a profit at any fixed rate, whereas those who merely lend out their funds are fully secured against all risk of loss and are guaranteed a profit at a fixed rate. Capital involved in trade may grow or decline through time, whereas, in interest-based transactions, capital automatically increases over time.

### **2.3 Islamic Banking Model**

As an alternative to interest Siddiqi (1967) developed the PLS model of Islamic banking following Maududi declaration that the charging of any guaranteed return on financing was illogical, irrational and unjust. The Islamic alternative was based on the principle whereby the rate of return on productive investments is considered partnership and follows the Mudarabah principle, while the liabilities are closer to the musharakah. Mudarabah is defined as a contract based on the combination of capital from one of the two parties and participating in profit where one partner contributes capital while the other contributes labor and expertise. He further described the Islamic financial intermediation system called the "two-fold Mudarabah" referring to the bank-depositors relationship and the bank-users of funds

relationship. However, Siddiqi (1967) wrote a theoretical foundation of the PLS and developed a detailed framework of financial intermediation based on it.

The fundamental principle of a two-fold Mudarabah is an economy-wise credit system which entitles an entrepreneur to obtain financial resources on the basis of a profit sharing contract to be lent part or whole of these funds to another party on the basis of another profit sharing contract. The question as to whether a financial intermediation system based on the two-fold Mudarabah is permissible has been raised by Siddiqi (1967). While formalizing the principle of mixing up personal money of the mudarib (financial institution) with the Mudarabah funds, Siddiqi suggests the establishment of the Islamic bank with musharakah capital and that mobilizes deposits and manages them on the basis of Mudarabah. The Mudarabah and musharakah when brought together under this model giving rise to a complete PLS model of Islamic banking. In musharakah, profits are distributed on pro rata basis and liability of loss becomes proportionate to capital contribution.

According to Ahmad (1947), there are two forms of Islamic financing. In accordance with the musharakah principle ordinary joint stock companies or banking institutions may issue shares to mobilize resources on the basis of the Mudharabah principle. However, most operational Islamic business organizations are neither pure mudharabas nor pure musharakas. It is common knowledge that shareholders own the Islamic banks on the principle of Musharakah while depositors own it on the principle of Mudharabah.

### **Economics of Profit and Loss Sharing**

In Monetary Models of Profit Sharing the profit sharing (p/s) ratio is replaced by the PLS as a real variable for the interest rate as a monetary variable. As a Fundamental Model of Financial Intermediation the basic PLS model and its fundamental variables were first formally defined and their inter-relationship a framework analyzing the effects of monetary

policy changes and its transmission mechanism which was discussed by Siddiqi (1983). The Rate of Profit is obtained through the concept of capital growth in the Mudarabah contract and the opportunity cost of the entrepreneur's services is reflected in positive share in profits if any and in case of loss; the loss of the entrepreneur is fully reflected in the opportunity cost of his services. While for the owner of funds, a profit is capital appreciation, and loss by capital depreciation. Siddiqi (1983) rejected the conventional dichotomy between pure profits and interest as productivity of entrepreneurship and financial capital respectively.

### **Bankers' Ratio of Profit Sharing**

According to Siddiqi's model, banks are secondary financiers which mobilizes the PLS deposits and part of demand deposits which are managed by investing in a variety of ways mainly in Mudarabah funds to business. The banks are entitled to an agreed percentage share in the profits called the Banker's Ratio of Profit-Sharing, (BRP). The banks are involved in a double bargain liability as they also bargain with entrepreneurs on behalf of their depositors as well as share-holders. Given  $p$ , the equilibrium level of BRP is determined by the supply of and demand for Mudarabah funds.

### **Depositor's Ratio of Profit Sharing**

In the "two-tier Mudarabah" Siddiqi model of PLS, the depositor is a primary financier and the bank a secondary financier. A deposit is a Mudarabah contract between the depositor as owner of funds and the bank as a manager. The deposit of the bank is a pool of deposits of several Mudarabah contracts. The liability of depositors to bank losses is limited to the extent of their deposits. The depositor's ratio of profit-sharing (DRP) is the ratio in which depositors

share the profits accruing to deposits as they are employed profitably by the banks which is determined after the determination of BRP. The equilibrium level of DRP is determined by the supply of and demand for Mudarabah deposits, given  $p$  and BRP.

## **2.4 Measuring Bank Performance**

Financial soundness of a bank can be measured using both profitability ratios and capital base or adequacy of the bank. Matema (2003) noted the importance of financial measures in gauging banking performances. Financial soundness assures the safety of depositors' funds and stability of banking system. The financial soundness of a financial institution may be strong or unsatisfactory varying from bank to another. External factors such as deregulation; lack of information among bank customers; homogeneity of the bank business; connections among banks do cause bank failure (CCG, 2004).

How et al (2005) examined whether Islamic financing could explain three important bank risks in Malaysia, a country with a dual banking system: credit risk, interest-rate risk, and liquidity risk. They found that commercial banks with Islamic financing had significantly lower credit and liquidity risks but significantly higher interest-rate risk than banks without Islamic financing. They studied a sample of 23 commercial banks in Malaysia over the period 1988–1996. The primary risk faced by banks is credit risk. This risk arises from the possibility of default by a counterparty that the promised cash flows on primary securities held by banks may not be paid in full. The Islamic financing structure used by Islamic banks determines its credit risk profile and argued that the risk in Murabahah (markup-based) financing is substantially less than that in the other Islamic financing structures. They reasoned that under the Mudharabah, Musharakah, Ijara, and Bay'al-Salam financing, the finance provider puts at stake the entire amount of capital that he provides as well as the

opportunity cost of capital for the entire period until the capital is returned. In contrast, risk bearing is only up to the stage when the goods are handed over to the capital user in a Murabahah financing arrangement. Malaysian banks predominantly adopted Murabahah based Islamic financing contract that carried the lowest risk relative to the other cases. They also argued that the assets of Islamic banks are mostly debt resulting from sale-based financing while their deposits are on a Mudharabah (profit-sharing) basis.

They observed that Islamic banks in Malaysia had less flexibility on the asset side than conventional banks because of overdependence on deferred sale financing (Murabahah) which was not sensitive to changes in market interest rates. They noted that 90% of Islamic financing is negotiated on fixed-rate terms and therefore could not react swiftly to changing interest rates due to the absence of a floating rate option. They also identified lack of liquidity as major problems faced by Islamic banks and an impediment to the growth of Islamic banking which compelled them to provide self-insurance due to their inability to diversify the risk of a bank run since banks cannot borrow on interest, they are without a lender of last resort because central bank's policy. They noted that Islamic banks are running their retail banking (demand deposits) operations at a self-imposed reserve requirement of 100% or close to it. Due to the limited number of Shari'ah compliant financial instruments, Islamic banks do not have the same funding options that can match the maturities of their deposits and loans through recourse to the money or capital markets negatively affecting Islamic bank's ability to generate adequate returns for their depositors.

Financial ratios have been prominently used to evaluate bank's performance by bank regulators and various indexes provided by financial management theories for measuring bank's performance. However, the uses of financial ratios to measure performance have been quite common and extensive in the literature (Samad & Hassan 2000). Moin (2008) performed a comparative study on financial performance of Islamic banks and conventional



banks in Pakistan by using 12 financial ratios for the bank's performance. The ratios were broadly categorized into four groups: (a) Profitability ratios; (b) Liquidity ratios; (c) Risk and solvency ratios; and (d) Efficiency ratios. This study will use the above ratios to make comparative study on the two types banks' performance.

### **PROFITABILITY RATIOS**

Profitability ratios are generally considered to be the basic bank financial ratio in order to evaluate how well bank is performing in terms of profit. If a profitability ratio is relatively higher as compared to the competitors, industry averages, guidelines, or previous years' same ratios, then it is taken as indicator of better performance of the bank [Ross (1994), Hassan (1999) and Samad (1998)]. The study applies these criteria to judge the profitability of the two types of banks: Return on assets (ROA), Return on Equity (ROE), and Profit Expense Ratio (PER).

#### **Return on assets (ROA)**

It measures net earnings per unit of a given asset and how bank can convert its assets into earnings (Samad & Hassan, 2000). Generally, a higher ratio means better managerial performance and efficient utilization of the assets of the firm and lower ratio is the indicator of inefficient use of assets. ROA is calculated as under:

$$ROA = \frac{\text{Net profit after tax}}{\text{Total Assets}}$$

#### **Return on Equity (ROE)**

Measure how much the firm is earning after tax for each dollar invested in the firm by shareholders and it indicates the profitability to shareholders of the firm after all expenses and taxes have been paid (Van Horne 2005). The higher ROE means better managerial performance and a higher return on equity due to debt or higher return on assets. This will

always be the case as long as the ROA (gross) is greater the interest rate on debt (Ross et al, 2005). ROE is calculated as under:

$$ROE = \frac{\text{Net profit after tax}}{\text{Shareholders Equity}}$$

### **Profit to Expenses Ratio (PER)**

The ratio measures the amount of operating profit earned for each dollar of operating expense. The ratio indicates to what extent bank is efficient in controlling its operating expenses. A higher PER means bank is cost efficient and is making higher profits (Samad & Hassan 2000) and is calculated as under:

$$PER = \frac{\text{Profit before tax}}{\text{Operating Expenses}}$$

### **LIQUIDITY RATIOS**

Liquidity ratios indicate the ability of the firm to meet recurring financial obligations. Liquidity is important for the firm to avoid defaulting on its financial obligations and avoid experiencing financial distress (Ross et al, 2005). In general, the higher liquidity ratios mean bank has larger margin of safety and ability to cover its short term obligations. Because saving accounts and transaction deposits can be withdrawn at any time, there is high liquidity risk for both the banks and other depository institutions. Banks can get into liquidity problem especially when withdrawals exceed new deposit significantly over a short period of time (Samad & Hassan 2000). Measures of liquidity are: Loan to Deposit Ratio (LDR), Cash & Portfolio Investment to Deposit Ratio (CPID), and Loan to Asset Ratio (LAR).

### **Loan to Deposit Ratio (LDR)**

Loan is represented by the advances for the conventional banks and financings through different Islamic financial products for the Islamic banks. Islamic banks are prohibited to extend loans and earn interest (Riba) by Islamic Shari'ah Principles. Bank with Low LDR is

considered to have excessive liquidity, potentially lower profits, and hence less risk as compared to the bank with high LDR. However, high LDR indicates that a bank has taken more financial stress by making excessive loans and also shows risk that to meet depositors' claims bank may have to sell some loans at loss and is calculated as under:

$$LDR = \frac{\text{Loan}}{\text{Deposit}}$$

### **Cash & Portfolio Investment to Deposit Ratio (CPIDR)**

Another measure of liquidity of the bank is the cash and portfolio investments to deposit ratio. The higher the ratio, the better is the liquidity position of the bank and the confidence and trust of the depositors in the bank as compared to the bank with lower CPIDR and is calculated as under:

$$CPID = \frac{\text{Cash \& Portfolio Investment}}{\text{Deposit}}$$

### **Loan to Asset Ratio (LAR)**

LAR measures liquidity of the bank in terms of its total assets and gauges the percentage of total assets the bank has invested in loans (or financings). The higher the ratio the less the liquidity is of the bank and low LAR is also considered to be more liquid as compared to the bank with higher LAR. However, high LAR is an indication of potentially higher profitability and hence more risk and it is calculated as under:

$$LAR = \frac{\text{Loan}}{\text{Asset}}$$

## **RISK AND SOLVENCY RATIOS**

These ratios measure the risk and solvency of the firm and are referred to as gearing, debt or financial leverage ratios. These ratios determine extent to which a firm relies on debt financing rather equity is related with financial leverage and the probability that the firm default on its debt contacts. The more the debt a firm has the higher is the chance that firm

will become unable to fulfill its contractual obligations and consequently, lead to higher probability of bankruptcy and financial distress. Although, debt is an important form of financing that provided significant tax advantage, it may create conflict of interest between the creditors and the shareholders (Ross et al, 2005). Debt-Equity Ratio (DER), Debt to Total Assets Ratio (DTAR), and Equity Multiplier (EM) are used to gauge risk and solvency of the banks.

### **Debt-Equity Ratio (DER)**

It measures the ability of a bank capital to absorb financial shocks in case creditors default in paying back their loans or the asset values decrease bank capital. A bank with lower DER is considered better as compared to the bank with higher DER and it is calculated as under:

$$DER = \frac{\text{Total Det}}{\text{Shareholders' Equity}}$$

### **Debt to Total Assets Ratio (DTAR)**

It measures the amount of total debt firm used to finance its total assets and it is an indicator of financial strength of the bank by providing information about the solvency and the ability of the firm to obtain additional financing for potentially attractive investment opportunities. Higher DTAR means bank has financed most of its assets through debt as compared to the equity financing. Higher DTAR indicates that bank is involved in more risky business and it is calculated as under:

$$DTAR = \frac{\text{Total Debt}}{\text{Total Assets}}$$

### **Equity Multiplier (EM)**

EM measures how many times the total assets covers the shareholders' equity. A higher EM indicates that bank has used more debt to convert into assets with share capital. Generally, the higher is the EM the greater is the risk for a bank and it is calculated as under:

$$EM = \frac{\text{Total Assets}}{\text{Total Shareholders Equity}}$$

## **EFFICIENCY RATIOS**

These ratios indicate the overall effectiveness of the firm in utilizing its assets to generate sales, quality of receivables and how successful the firm is in its collections, the promptness of payment to suppliers by the firm, effectiveness of the inventory management practices, and efficiency of firm in controlling its expenses. Higher value of these ratios is good indicators bank's good performance. They are Asset Utilization (AU), Income to Expense Ratio (IER), and Operating efficiency (OE).

### **Asset Utilization (AU)**

How effectively the bank is utilizing all of its assets is measured by assets utilization ratio. The bank is using its assets effectively in generating total revenues if the AU ratio is high but low AU indicates that the bank is not using its assets to their capacity and should either increase total revenues or dispose of some of the assets (Ross, Westerfield, and Jaffe 2005). Total revenue of the bank in this study is defined as *net spread before provision* plus all *other income*. AU is calculated as under:

$$AU = \frac{\text{Total Revenue}}{\text{Total Assets}}$$

### **Income Expense Ratio (IER)**

This is the most commonly and widely used ratio in the banking sector to assess the managerial efficiency in generating total income vis-à-vis controlling its operating expenses. Income to expense is the ratio that measures amount of income earned per dollar of operating expense. High IER indicates the ability and efficiency of the bank in generating more total income in comparison to its total operating expenses. Total income in the study is defined as *net spread earned before provisions* plus all *other income* while the *Other Expenses* in the

income statement are treated as *total operating expense* for the study. IER is calculated as under:

$$IER = \frac{\text{Total Income}}{\text{Total Operating Expenses}}$$

### **Operating Efficiency (OE)**

OE measures the amount of operating expense per dollar of operating revenue and measures managerial efficiency in generating operating revenues and controlling its operating expenses. Lower OE is preferred over higher OE as lower OE indicates that operating expenses are lower than operating revenues. Operating revenue in this study is defined as *net spread earned before provisions plus fee, brokerage, commission, and forex income*. OE is calculated as under:

$$OE = \frac{\text{Total Operating Expenses}}{\text{Total Operating Revenue}}$$

## **2.5 Empirical research on Islamic Banking**

Widagdo and Ika (2008) categorized method analysis of prior studies on examination of financial performance of Islamic banks with ratios analysis examining the performance of Islamic banks during certain period over several years making inter-temporal comparison and the others that made comparison with conventional banks' performance. Sarker (1999) analyzed efficiency of Islamic banks under conventional banking framework in Bangladesh and revealed that Islamic banks could not operate with its full efficiency level if it operated under a conventional banking framework. Arief (1989) examined the financial performance of Bank Islam Malaysia Berhad (BIMB) in Malaysia and found that during the first six years of its establishment made an impressive progress.

Studies on comparative financial performance of Islamic Banks and conventional banks are of much significance to this study, notably those by Samad (1999), Samad and Hassan (2000)

and Rosly and Bakar (2003) done in Malaysia. Samad (1999) evaluated efficiency of BIMB during 1992-1996 and compared to that of conventional banks and found that BIMB had relatively higher managerial efficiency than conventional banks. However, the comparative study by Samad and Hassan (2000) on the financial performance of BIMB performance of conventional banks over the period 1984-1997 revealed that the financial performance of BIMB was different from conventional banks with respect to liquidity and risk management.

Rosly and Abu-Bakar (2003) found that Islamic banking scheme (IBS) banks have recorded higher return on assets (ROA) as they are able to utilize existing overheads carried by mainstream banks. As this lowers their overhead expenses, it is found that the higher ROA ratio for IBS banks does not imply efficiency. It is also inconsistent with their relatively low asset utilization and investment margin ratios. Their finding confirmed the contention that Islamic banking that thrives on interest-like products (credit finance) is less likely to outshine mainstream banks on efficiency terms. Although Islamic credit finance products may have complied with Shariah rules, their lack of ethical content is not expected to motivate IBS banks to strive for efficiency through scale and scope economies.

Another study that evaluated bank performance by the use of ratios was that by Ahmed and Hassan (2007) on Regulation and Performance of Islamic Banking. They studied the current legal and regulatory framework of Islamic banking in Bangladesh and its effect on performance and compared the performance of Islamic banks with conventional banks in Bangladesh. They concluded that the most important issue was the lack of a well-defined regulatory and supervisory framework for Islamic banks to effectively function in line with the tenets of Shariah and suggested that Islamic banks in Bangladesh should have an independent banking act that controls, guides, and supervises their functions and provide legal support to the parties concerned. Their study could not conclusively point out which

type of bank had the best asset quality performance and that there was basically no difference between Islamic banks and private commercial banks. In operating performance, commercial private banks had the highest followed by Islamic banks and public banks (Ahmed and Hassan, 2007).

Rosly and Bakar (2003) made comparative analysis of the financial performance of Islamic banking scheme and made with their mainstream banks' performance. The result showed that mainstream banks were more efficient than Islamic banking scheme. In contrast, Hassan (1999) revealed that, in terms of deposit growth and investment growth, performance of Islamic Bank Bangladesh Limited was better than performance of private banks during period 1993-1994. Mahmood (2005) made comparative case study of the financial performance of Islamic bank with that of conventional bank in Pakistan during 2000-2004 and found that, almost in all ratios, Islamic bank was superior to conventional bank. While a study of comparative financial performance of Islamic banks and the conventional banks during 1991-2001 in Bahrain by Samad (2004) concluded that there was no significant difference between Islamic banks and conventional banks with respect profitability and liquidity.

Similar study whose findings indicated that there was no major difference between Islamic banks and conventional banks with respect to profitability and liquidity was by Kader, et al. (2007) who made a comparative study of financial performance of Islamic banks and conventional banks in UAE. The study utilized bank level data to evaluate the performance of the United Arab Emirates (UAE) Islamic banks using balance sheets and income statements of 3 Islamic banks and 5 conventional banks in the time period of 2000 to 2004 were used to compile data for the study. They applied financial ratios to examine the performance of the Islamic banks in profitability, liquidity, risk and solvency, and efficiency. Another study was by Samad and Hassan (2000) to that evaluated interbank performance in profitability, liquidity, risk and solvency, and community involvement of Bank Islamic



Maaysia Berhad over 14years for the period 1984-1997. They used financial ratios to measure these performance and F-test and t-test to determine their significance, the results showed that the bank made statistically significant improvement in profitability during 1984-1997.

Also, another study was that of Abdus Samad (2004) which was to examine the comparative performance of Bahrain's interest-free Islamic banks and the interest-based conventional commercial banks during the post Gulf War period 1991-2001. They used nine financial ratios in measuring the performances with respect to (a) profitability, (b) liquidity risk, and (c) credit risk, and applying Student's t-test to these financial ratios, the study concluded that there existed a significant difference in credit performance between the two sets of banks. However, the study found no major difference in profitability and liquidity performances between Islamic banks and conventional banks.

## **2.6 Conclusion on Literature Review**

From the above literature it is evident that various studies on bank performance have been done using different models. Evidently they used the combination of balance sheet and income statement variables to evaluate bank performance. Use of financial ratios and the CAMEL analysis has been favored in many studies.

Existing literature on Islamic banking showed various studies made on performance measurement of Islamic banks. However, studies on assessing financial performance of Islamic banks and conventional banks in different countries have been captured by the existing literature on Islamic banking and finance but no studies have been published on comparative analysis of financial performance of Islamic banks and conventional banks in Kenya as the concept is very new Kenya. The aim of this study is to examine and analyze the

Islamic banks' performance in Kenya and also make comparison with conventional banking in the country.

This study will use financial ratios to measure and compare Islamic bank and conventional banks performances in the profitability, liquidity, risk & solvency, and efficiency. Financial ratios are commonly used in the literature among the various tools and techniques used by different authors as performance measure. T-test and F-test will be used to determine the significance of the results.

### **3 CHAPTER THREE: METHODOLOGY**

#### **3.0 Introduction**

This chapter outlines the research design to be used in this study. The sections included in the chapter are the population of the study, the sample selected for the study and the data collection process. It will be concluded with data analysis methods.

#### **3.1 Research Design**

This a comparative study of financial statements of commercial banks in Kenya. The performance of two Islamic banks and conventional banks in Kenya which do not have Islamic windows will be evaluated and compared. This is convenient and stratified sampling of secondary data.

#### **3.2 Population and sampling**

According to CBK (2008), as at 31<sup>st</sup> December 2008 the banking sector comprised 43 commercial banks of which 2 were Islamic banks. One bank is under statutory management and is eliminated from the study. However, there are five (5) non-Islamic banks which offer Islamic windows as per appendix – which will be excluded from the analysis. Further, for the purpose of this study the remaining 37 commercial banks (annex) will be classified into Islamic banks (2) and non-Islamic banks (35). The whole population will be analyzed because of the number of the institutions in the sector.

#### **3.3 Data Collection**

Secondary data for each year will be compiled from the income statements and balance sheets of the two sets of banks which can be obtained from their annual reports and quarterly reports published by banks.

### 3.4 Data Analysis

The study evaluates performance of the Islamic bank in profitability, liquidity, risk, and efficiency for the period of 2007-2009. The following financial ratios namely: Return on Asset (ROA), Return on Equity (ROE), Loan to Deposit ratio (LDR), Loan to Assets ratio (LAR), Debt to Equity ratio (DER), Asset Utilization (AU), and Income to Expense ratio (IER) are used to assess banking performances. The above average ratios will be calculated for each bank type and then the compared with one another. T-test and F-test are used in determining the significance of the differential performance of the two groups of banks. Level of significance is tested at 5%.

Table 1: Sample Frame						
Strata	Population	Average performance Indicators				Sample proportion
		ROA	ROE	..	..	
Islamic Banks in Kenya	2					100%
Conventional Banks in Kenya	35					100%
Total	37					100%

Source: Author, 2009

Krep, BBK, KCB, Dubai, imperial =5 have Islamic Windows

## 4 CHAPTER FOUR: EMPIRICAL RESULTS

### 4.0 Introduction

This section presents the finding based on the objectives identified earlier in this study. The findings of the study are also presented in tables. The significant results are further discussed and analyzed in detail in this section. The equality of mean test was used to compare means from two samples. To determine whether the difference in means were significant, p-value will be less than the 0.05. If the p value is less than 0.05 then there is no difference among the group's means.

### 4.1 Findings

#### 4.1 Profitability Ratios

##### 4.1.1 Return on Assets (ROA)

Table 4.1.1 (a) : t-Test: ROA

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	-6.73%	1.34%
Variance	0.00049	0.00003
Observations	2	13
t Stat	<b>-5.1520</b>	
P(T<=t) two-tail	0.1220	
t Critical two-tail	<b>12.7062</b>	

Table 4.1.1 (b): F-Test ROA

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	-6.73%	1.34%
Variance	0.00049	0.00003
F	<b>15.2962</b>	
P(F<=f) one-tail	0.00207	
F Critical one-tail	<b>4.74723</b>	

The above result shows comparison of ROA between Islamic banks and conventional banks. ROA of conventional banks is (1.34%) greater than Islamic banks (-6.73%). This is because Islamic banks are very young and is on average less than two years old. Statistically there is significant difference between the two means at 5% significance level (see Table-4.5). On

average; ROA of conventional banks (1.34%) is higher than average ROA of Islamic bank (-6.739%). Financial results of 2009 of Islamic bank and conventional banks will reveal whether this difference will continue as Islamic banks are expected to attract more customers.

#### 4.1.2 Return on Equity (ROE)

Table 4.1.2 (a) : t-Test: ROE

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	-21.13%	8.21%
Variance	0.00521	0.00124
t Stat	<b>-5.6463</b>	
P(T<=t) two-tail	0.1116	
t Critical two-tail	<b>12.7062</b>	

Table 4.1.2 (b): F-Test ROE

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	-21.13%	8.21%
Variance	0.00521	0.00124
F	<b>4.2085</b>	
P(F<=f) one-tail	0.06271	
F Critical one-tail	<b>4.74723</b>	

An average ROE of the Islamic banks is -21.13% whereas the average ROE of conventional banks for the same periods is 8.21%. The difference of the two means is strongly significant (see Table-4.5).

#### 4.1.3. Profit Expense Ratio (PER)

The analysis of PER of Islamic banks and conventional banks indicates that conventional banks have generated higher profits for every one shilling of expense spent during the period under review. Mean PER of the Islamic banks is -0.75 which is very significantly less than conventional banks mean PER of 0.69. This difference in the two means is statically different at 5% significance level (see Table-4.5). The results indicate that conventional banks are more profitable compared with Islamic bank.

Table 4.1.3 (a) : t-Test: PER

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	-0.75	0.69
Variance	0.09645	0.20357

Observations	2	13
P(T<=t) two-tail	0.0292	
t Critical two-tail	<b>4.3027</b>	

Table 4.1.3 (b) : F-Test: PER

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	-75.44%	69.22%
Variance	0.09645	0.20357
F	<b>0.4738</b>	
P(F<=f) one-tail	0.49566	
F Critical one-tail	<b>0.00410</b>	

## 4.2. LIQUIDITY RATIOS

### 4.2.1. Loan to Deposit Ratio (LDR)

Table 4.2.1 (a): t-Test: LDR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	36.37%	64.80%
Variance	0.00006	0.03177
t Stat	<b>-5.7146</b>	
P(T<=t) two-tail	0.0001	
t Critical two-tail	<b>2.1788</b>	

Table 4.2.1 (b): F-Test: LDR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	36.37%	64.80%
Variance	0.00006	0.03177
F	<b>0.0019</b>	
P(F<=f) one-tail	0.03426	
F Critical one-tail	<b>0.00410</b>	

Lower loan to deposit ratio for Islamic bank compared with conventional banks during the period indicates that Islamic bank has been comparatively more liquid. This LDR of Islamic banks indicates comparatively lower loans (financings) than deposits emphasizing higher liquidity position of Islamic banks. Compared with Islamic bank, LDR of conventional banks is significantly higher. Conventional banks mean LDR is 64.80% and the Mean LDR of Islamic banks is 36.37%. Statistically there is significant difference between the two means at 5% level of significance (see Table-4.5).

#### 4.2.2. Cash & Portfolio Investments to Deposits & Borrowings Ratio (CPIDBR)

Table 4.2.2 (a): t-Test: CPIDBR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	97.22%	47.45%
Variance	0.03149	0.02937
t Stat	<b>3.7087</b>	
P(T<=t) two-tail	0.1677	
t Critical two-tail	<b>12.7062</b>	

Table 4.2.2 (b): F-Test: CPIDBR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	97.22%	47.45%
Variance	0.03149	0.02937
F	<b>1.0720</b>	
P(F<=f) one-tail	0.32090	
F Critical one-tail	<b>4.74723</b>	

The CPIDR indicate that liquidity position of both Islamic banks and conventional banks is high. However, the higher CPIDBR of Islamic banks supports that Islamic banks are more liquid as compared to Conventional banks. Table-4.2.2 (a and b) shows that mean CPIDBR of Islamic bank (97.22%) is higher and statistically different from mean CPIDBR of conventional banks (47.45%) at 5% significance level (see Table-4.5).

#### 4.2.3. Loan to Asset Ratio (LAR)

Table 4.2.3 (a): t-Test: LAR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	23.68%	50.41%
Variance	0.00001	0.01993
t Stat	<b>-6.8174</b>	
P(T<=t) two-tail	0.0000	
t Critical two-tail	<b>2.1788</b>	



Table 4.2.3 (b): F-Test: LAR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	23.68%	50.41%
Variance	0.00001	0.01993
F	<b>0.0005</b>	
P(F<=f) one-tail	0.01754	
F Critical one-tail	<b>0.00410</b>	

Whereas loan to deposit ratio shows that liquidity position of conventional banks is lower, loan to asset ratio shows opposite results. LAR of Islamic banks is 23.68% while LAR of conventional banks 50.41%. The LAR Islamic banks is evidence of less financial stress which Islamic bank by making inadequate loans and holding more liquid assets compared to conventional banks. However, this is an indication of potential detriment in profitability and also conforms to my results drawn from profitability ratios of Islamic banks.

Overall result indicates that Islamic bank is more liquid than the conventional banks. Table 4.2.3 shows that the average LAR of conventional banks is two times as high as that of Islamic bank. The difference is statistically significant at 5% significance level (see Table-4.5)

### 4.3. RISK AND SOLVENCY RATIOS

#### 4.3.1. Debt to Equity Ratio (DER)

Table 4.3.1 (a): t-Test: DER

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	2.60	5.39
Variance	0.20084	5.66136
t Stat	<b>-3.8069</b>	
P(T<=t) two-tail	0.0029	
t Critical two-tail	<b>2.2010</b>	

Table 4.3.1 (b): F-Test: DER

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	2.60	5.39
Variance	0.201	5.661

F	<b>0.0355</b>
P(F<=f) one-tail	0.14625
F Critical one-tail	<b>0.00410</b>

Average Debt to equity ratio of Islamic bank is 2.6 times compared to conventional banks DER of 5.39 times. These results demonstrate that conventional banks are more risky as compared to Islamic bank. This difference in means is statistically different at 5% level of significance (see Table-4.5).

#### 4.3.2. Debt to Total Assets Ratio (DTAR)

Table 4.3.2 (a): t-Test: DTAR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	68.20%	80.14%
Variance	0.00008	0.01085
t Stat	<b>-4.0349</b>	
P(T<=t) two-tail	0.0014	
t Critical two-tail	<b>2.1604</b>	

Table 4.3.2 (b): F-Test: DTAR

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	68.20%	80.14%
Variance	0.00008	0.01085
F	<b>0.0076</b>	
P(F<=f) one-tail	0.06799	
F Critical one-tail	<b>0.00410</b>	

The results of debt to total assets ratio conform to our results of DER. The results show that DTAR of the conventional banks is consistently higher than Islamic bank making once again conventional banks to be more risky and less solvent than Islamic bank. The comparison of means of DTAR for risk measure for both Islamic bank and conventional banks in Table-4.5.2 reveals that the average DTAR of Islamic bank is 68.2% whereas the average DTAR of conventional banks is 80.14%. The difference of the two means is statistically different at 5% significance level (see Table-4.5).

#### 4.3.3. Equity Multiplier (EM)

The analysis of equity multiplier further proves conventional banks to be more *risky* and less solvent as compared to Islamic bank. The results are consistent with other results found in DER and DTAR for both types of banks. The conventional banks EM is similar in behavior to that of DER which further verifies that relative to debt, equity base is higher in conventional banks. Average EM of conventional banks is 6.37 times compared to 3.60 times for Islamic banks. The difference between the two means is statistically significant at 5% significance level (see Table-4.6).

Table 4.3.3 (a): t-Test: EM

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	3.60	6.37
Variance	0.20084	5.72670
t Stat	<b>-3.7645</b>	
P(T<=t) two-tail	0.0031	
t Critical two-tail	<b>2.2010</b>	

Table 4.3.3 (b): F-Test: EM

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	360.21%	637.08%
Variance	0.20084	5.72670
F	<b>0.0351</b>	
P(F<=f) one-tail	0.14542	
F Critical one-tail	<b>0.00410</b>	

Overall, analysis of the results of all risk and solvency measures, DER, DTAR, and EM, indicate conventional banks to be more risky and less solvent than Islamic bank.

#### 4.4. EFFICIENCY RATIOS

##### 4.4.1. Asset Utilization (AU)

Average AU ratio of conventional banks (4.76%) is higher than Islamic banks (1.35%) and statistically different from at 5% significance level. This proves that conventional banks are comparatively more efficient in utilization of the assets in generating total income (revenue) than that of Islamic bank. (See Table-4.5)

Table 4.4.1 (a): t-Test: AU

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	1.35%	4.76%
Variance	0.00021	0.00008
t Stat	<b>-3.2722</b>	
P(T<=t) two-tail	0.1888	
t Critical two-tail	<b>12.7062</b>	

Table 4.4.1 (b): F-Test: AU

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	1.35%	4.76%
Variance	0.00021	0.00008
F	<b>2.7125</b>	
P(F<=f) one-tail	0.12548	
F Critical one-tail	<b>4.74723</b>	

#### 4.4.2. Income to expense Ratio (IER)

The results show that IER of conventional banks is higher than that of Islamic bank during which proves once more that conventional banks are more efficient in managing their expenses. Compared with Islamic bank, conventional banks are generating more income for every shilling of expense spent. Average IER of Islamic bank is 0.25 times which is less than the average IER of 1.67 times for conventional banks and shows that both means are different from each other at 5% significance level (see Table-4.5).

Table 4.4.2 (a): t-Test: IER

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	0.246	1.673
Variance	0.09645	0.15343
t Stat	<b>-5.8256</b>	
P(T<=t) two-tail	0.0282	
t Critical two-tail	<b>4.3027</b>	

Table 4.4.2 (b): F-Test: IER

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	24.56%	167.29%
Variance	0.09645	0.15343
F	<b>0.6286</b>	
P(F<=f) one-tail	0.55675	
F Critical one-tail	<b>0.00410</b>	

#### 4.4.3. Operating Efficiency (OE)

OE ratio further strengthens the previous two results that conventional banks are also more efficient than Islamic bank in managing their operating expenses and generating more operating revenues. Average of OE of Islamic banks at 3256% is higher and statistically different at 5% significance level than average OE 68 % of conventional banks (Table-4.5).

Table 4.4.3 (a): t-Test: OE

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	3256.12%	68.16%
Variance	1,693.81320	0.09231
t Stat	<b>1.0955</b>	
P(T<=t) two-tail	0.4710	
t Critical two-tail	<b>12.7062</b>	

Table 4.4.3 (b): F-Test: OE

	<i>Islamic Banks</i>	<i>Conventional Banks</i>
Mean	3256.12%	68.16%
Variance	1,693	0.09231
F	<b>18348</b>	
P(F<=f) one-tail	0.00000	
F Critical one-tail	<b>4.74723</b>	

An overall analysis of all efficiency measures reveals that Islamic bank is less efficient in asset utilization, income generation and managing its expenses.

Table 4.5 Comparison of Islamic Bank Conventional Banks' Financial Ratios

Performance Measure	Islamic Banks		Conventional Banks		t-test	F-test
	Mean	S.D	Mean	S.D		
<b>Profitability</b>	n=2		n=13			
ROA	-6.73%	2.21%	1.34%	0.56%	(5.1520)	15.2962
ROE	-21.13%	7.22%	8.21%	3.52%	(5.6463)	4.2085
PER	(0.75)	0.31	0.69	0.45	(5.7231)	0.4738
<b>Liquidity</b>						
LDR	36.37%	0.78%	64.80%	17.82%	(5.7146)	0.0019
CPIDBR	97.22%	3.15%	47.45%	2.94%	3.7087	1.0720
LAR	23.68%	0.00%	50.41%	1.99%	(6.8174)	0.0005

Performance Measure	Islamic Banks		Conventional Banks		t-test	F-test
	Mean	S.D	Mean	S.D		
<i>Risk and Solvency</i>						
DER	260.21%	20.08%	538.89%	566.14%	(6.8174)	0.0005
DTAR	68.20%	0.01%	80.14%	1.09%	(4.0349)	0.0076
EM	3.60	20.08%	6.37	572.67%	(3.7645)	0.0351
<i>Efficiency</i>						
AU	1.35%	0.02%	4.76%	0.01%	(3.2722)	2.7125
IER	24.56%	9.64%	167.29%	15.34%	(5.8256)	0.6286
OE	3256%	169381%	68.16%	9.23%	1.0955	18,349

## **5 CHAPTER FIVE: CONCLUSION**

### **5.0 Introduction**

This study examined the financial performance of Islamic banks in Kenya. Financial performance measures were expressed in terms of various financial ratios categorized as profitability, liquidity, risk and solvency, and efficiency. This study attempted to examine whether financial performance of Islamic banks is different from that of conventional banks in Kenya. Furthermore, comparative financial performance of Islamic banks and conventional banks for the year 2008 and six months of 2009 were examined.

### **5.1 Conclusion**

First, the analysis of profitability measures indicates that conventional banks are more profitable and are significantly different from Islamic bank in Return on Assets (ROA), Return on Equity (ROE) and Profit Expense Ratio (PER). The analysis of efficiency measures further strengthens this finding. The examination of the liquidity measures, Loan Deposit Ratio (LDR), Cash & Portfolio Investments to Deposits & Borrowings Ratio (CPIDBR) and Loan Asset Ratio (LAR), of the two sets of banks shows that Islamic bank liquidity is significantly higher than that of the conventional banks. Since Islamic banks are less profitable than its counterparts, what is expect when it comes to risk and solvency measures is according to risk and return trade off. Accordingly, the findings of profitability and risk & solvency perfectly fit in this risk-return profile and therefore, I conclude that conventional banks are more profitable, more risky but less solvent than Islamic banks.

Analysis of the results of all the risk and solvency measures, Debt Equity Ratio (DER), Debt to Total Assets ratio (DTAR), and Equity Multiplier (EM), indicates conventional banks to be more risky and less solvent than Islamic bank. Like in profitability, and risk & solvency

measures, conventional banks are found to be statistically different and more efficient in terms of utilization of their assets, in generating income, and managing their expenses as compared to Islamic bank. The difference in these performance measures is statistically significant which suggests that these two sets of banks do not fall in the same risk class. This confirms that product of Islamic banking is a viable investment class providing unique risk structure for interested investors. All efficiency measures, Asset Utility (AU), Income Expense Ratio (IER), and Operating Efficiency (OE) suggest that Islamic bank are significantly less than that of conventional banks in Kenya during 2008-2009.

The findings on the comparative study on performance measurements of Islamic banks and conventional banks in Kenya in comparison to the results drawn from similar studies done in different parts of the world gave mixed comparisons. For example, this study contrasted with that of Kader and Asarpota (2007). They found in their study that UAE Islamic banks are relatively more profitable, less liquid, less risky, and more efficient as compared to the UAE conventional banks. However, this study confirmed the findings of Samad & Hassan (2000). They revealed in their study that BIMB (Bank Islam Malaysia Berhad) is less profitable, relatively less risky and more solvent as compared to conventional banks of Malaysia. The difference in results is largely due to the fact that Islamic banks in Kenya are very new compared to longer history in these countries as compared to Kenya where full-fledged Islamic banking started merely few years back. Besides, conventional banking has a longer history, vast experience of learning from the financial markets mechanisms, and larger share in the Kenyan financial sector. Taking into consideration these facts the results of this study is not unexpected.



## **5.2 Limitation to the study**

This study has limitations that should be considered carefully when interpreting the results. In this study, sample of conventional banks did not include conventional banks that opened Islamic windows and also, the Islamic banks are very young and therefore, all data was not readily available for analysis.

## **5.3 Recommendations**

Future studies on Islamic banks in Kenya when there will be more Islamic banks with longer time period would generate better insight on the issue of comparative performance with conventional banks and provide solid evidence.

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## Appendices

### Bank

- 1 Standard Chartered Bank Ltd
- 2 Cooperative Bank of Kenya
- 3 CFC Stanbic Bank Kenya
- 4 Equity Bank Limited
- 5 Commercial Bank of Africa
- 6 Citibank NA
- 7 National Industrial Credit Bank
- 8 National Bank of Kenya Ltd
- 9 Diamond trust
- 10 Investment & Mortgages Bank
- 11 Prime Bank Limited
- 12 Bank of Baroda
- 13 Bank of Africa Ltd
- 14 Bank of India
- 15 Ecobank
- 16 Family Bank
- 17 Chase Bank Limited
- 18 Fina Bank Limited
- 19 African Banking Corporation
- 20 Habib AG Zurich
- 21 Development Bank of Kenya
- 22 Giro Commercial Bank
- 23 Guardian Bank
- 24 Southern Credit Banking Corp
- 25 Consolidated Bank of Kenya
- 26 Habib Bank Limited
- 27 Victoria Commercial Bank Ltd
- 28 Equatorial Commercial Bank
- 29 Fidelity Commercial Bank
- 30 Credit Bank Limited
- 31 Transnational Bank Limited
- 32 Middle East Bank of Kenya
- 33 Paramount Universal Bank
- 34 Oriental Commercial Bank
- 35 City Finance Bank
- 36 Charterhouse Bank Limited \* Not published accounts

### Islamic Banks

- 1 Gulf African Bank
- 2 First Community Bank

### Banks with Islamic Windows

- 1 Barclays Bank of Kenya Ltd
- 2 Kenya Commercial Bank Ltd
- 3 Imperial Bank Limited
- 4 KREP BANK
- 5 Dubai Bank Limited