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FINANCIAL CONDITION AND PERFORMANCE OF ISLAMIC AND NON-ISLAMIC BANKS IN KENYA: A COMPARATIVE STUDY

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Abstract:
This study compares the financial condition and performance of the Islamic banks against those of the conventional banks in Kenya along the dimensions including profitability, liquidity and solvency. The study applies "descriptive financial analysis" research design and is longitudinal in nature spanning a period of six years from 2010 to 2015. A sample of seven banks has been studied covering two fully fledged Islamic banks and five non-Islamic banks under the same small peer group according to the CBK bank supervision report of 2014. Secondary data collected from the banks' financial statements has been utilized in this study. The study concludes that the difference in profitability and solvency between the Islamic banks and the conventional banks is not statistically significant. On liquidity, however, Islamic banks have proven to be significantly better than the Non-Islamic banks.

JEL: G21, G24, E50

Keywords: Islamic banks; non Islamic banks; financial condition; financial performance

1. Introduction

Financial intermediation is of paramount importance to any country as without its proper functioning economic growth becomes an illusion. Attracting deposits from savers for onward lending to deficit units (borrowers) is a major function of banks as it enables investment to take place and thus spur economic development of any nation

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(Ali, 2011). Islamic banking has been defined as "*banking in consonance 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*" (Moin, 2008). Masruki, Ibrahim, Osman & Wahab (2011) consider Islamic banking as a banking model "*that is consistent with Islamic law and guided by Islamic economics*". Islamic banks (IBs) proscribe interest as it is considered exploitative and undesirable. Islam emphasizes on fully following the Quran and not maximizing return on transactions [(Kader, et al, 2007 as cited by Widago & Ika (2008)].

Non Islamic banks (NIBs), on the other hand, are those banks whose activities are based on "a fixed rate of interest". Apart from ensuring that a borrower is capable of paying by background check, they also demand that the period of repayment determines the final amount to be paid (Al-Shami, 2009). Non Islamic banks (NIBs) act on the basis of pure financial intermediation from which they make their profits from margins generated from deposits and also interests earned from moneys advanced to investors or individuals (Ryu et al., 2012, as cited by Onakoya & Onakoya, 2013).These financial institutions provide a variety of services and these are; saving mobilization from surplus units to deficit units and secondly, they also provide other related services such as; transfer of funds, facilitation of international trade, consultancy services, custody of treasures, and other ancillary services for which they receive payments. NIBs provide deposit services in which reward is fixed in advance and predetermined unlike IBs (Hanif, 2011). Under the Non-Islamic Banking model, the bank bears the total risk and net return is kept after defraying other expenses and the depositors' interest at a fixed rate. This is different from Islamic banking model where both reward (not interest- *riba)* and risk are shared and they are pegged on the outcome of the investment.

In the Non-Islamic banking context, it means collection of funds followed by their disbursement based on interest charge. However, interest is prohibited in Islam therefore Non-Islamic banking does not cater for the religious disposition of an Islamic economy. The capital structure of an Islamic bank does not include debts and thus no interest is charged and consequently their returns come from profit and loss sharing arrangements (Hanif, 2011; Ali, 2011). It is majorly on this premise that Islamic banks only concentrate on "*trading, leasing, fee based services as well as investment activities"*, as noted by Ali (2011). According to Islamic finance, anyone who does not bear any risk should not claim any benefit and this forms the foundation of profit and loss sharing paradigm (Jedidia & Hamza, 2014). While the Islamic banking model has a distinct calling to fulfill the instructions as per the Holly Quran by being "fare" and a "free" system where "fairness" is the primary objective, Non-Islamic banking model is all about maximization of returns on investments (Usman & Khan, 2012).

In Kenya, both Islamic and Non-Islamic banks (NIBs) are still lumped together under the same Banking Act, Cap 488 of the laws of Kenya, notwithstanding the apparent advantages usually enjoyed by the NIBs over the Islamic banking model such as being paid interest on their reserves held by the Central Bank, a deal that Islamic Banks (IBs) prohibit. Thus, Islamic banks have different characteristics; be it in the area of their objectives, operations or procedures. This study investigates the relative profitability, liquidity, risk and solvency related to the two banking models in the Kenya's context.

The foundation and development of Islamic finance and by extension, Islamic banking, is Islam itself and the degree and readiness of its adherents to live according to their calling while Non-Islamic banking is based on pure financial intermediations (Ali, 2011).The rapid growth of IBs have been put to question with others suggesting that comparing these models (IBs and NIBs) is not appropriate because NIBs have been there for years and years (Masruki, Ibrahim, Osman and Wahab, 2011). Skeptics like Samad (2004) as cited by Masruki, Ibrahim, Osman and Wahab (2011) wonder how non-conventional institutions like IBs that do not accept interest and are required to follow two rules-manmade laws and Islamic laws, seem to be performing unbelievably well as compared to NIBs that are even free to enter into any business transaction as they like. Islamic financial institutions are under obligation to share their profits or losses as the case may be with depositors and other users of their funds something which does not apply to NIBs (see for example, Ali, 2011, Hanif, 2011, Jedidia & Hamza, 2014). According to the conventional capital structure theorists, it was advanced that there were only two sources of capital namely; debt and equity (Modigliani & Miller, 1958, 1963, Myer ,1984 ,Miller, 1995).However, the proponents of Islamic finance maintain that the idea "*of financial risk*" applicable to "*conventional capital structure*" (debt and equity) is irrelevant to IBs because the capital structure of IBs do not include debts (Al Deehani et al.,1999 as cited by Aldeehani, El-sadi & Al-Deehani,2015).

Usman and Khan (2012) carried out a comparative analysis of financial performance of IBs and NIBs in Pakistan between 2007 and 2009 and their study concluded that the IBs were booming as compared to their counterparts. Johnes, Izzeldin & Pappas (2012) "*using Data Envelopment Analysis (DEA)*" reports no substantial variance in gross (on average) efficacy between the two banking models after the scale is reduced to "*a common frontier*". Conversely, the outcome differs when they use Meta-frontier analysis (MFA) as it reveals that Islamic banking model is less efficient compared to the Non-Islamic model. Garo (2013) studied the factors influencing financial performance of IBs as compared to the NIBs in Kenya. Ng'ang'a (2013) carried out a study on the effects of financial structure on the financial performance of NIBs and IBs. Thomi (2014) did a study to find out the effects of Islamic banking products on financial performance of commercial banks in Kenya between

2009 and 2013. Jamal (2013) did a comparative study of financial performance of IBs and NIBs (2010 -2012, three year period) using a CAMEL model.

This study intends to include the period 2010 to 2015 (six years) because between those times the pure IBs in Kenya had matured enough to compete in equal footing with the conventional counter parts. Harris (2012) as cited by Jamal (2013) noted that the two IBs in Kenya managed to break even within three years of their operations hence it is only fair to evaluate their performances from the year 2010 onwards with the entrenched NIBs. Jamal (2013) after carrying out a comparative study of financial performance of IBs and NIBs in Kenya (2010 to 2012-three years) also suggested that an expanded period of study should be carried out and hence this study intends to fill that gap. Apart from the above observations, the study adopted a different methodology by using Discriminant Analysis model and One Way-Repeated Measures Analysis of Variance (rANOVA) model which others have not tried out here locally to the researcher's knowledge. The study will answer the question; do these two banking models differ in terms of their financial conditions and performances in Kenya?

2. Financial Condition and Performance

Financial condition refers to "*the economic position or state of affairs of a business as at a particular point of time"* (Pandey, 1994). This particular information is conveyed by one of the most important financial statements which is the Balance sheet (statement of financial position). For that matter both categories of the banks were assessed on the basis of the value of assets they hold, the degree of risk they run in terms of the liabilities they have incurred, and the information on owners' Equity as reflected on their Balance sheets. Financial performance can be defined as how well or bad a firm has done economically over a period of time (Pandey, 1994). To form judgment on how a bank has performed financially, one has got to analyze past financial statements and other accounting data in order to understand the underlying strengths and weaknesses (Pandey, 1994).

The stakeholders looking for the results and signs are many and their interests and objectives are myriads and varied. Management, creditors/depositors, owners, regulators, and tax authorities are some of the interest groups. Therefore, financial analysis precedes all other strategies aimed at future plans of a firm such as a bank (Pandey, 1994). Financial analysis is defined by Pandey as "*the process of identifying strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and the profit and loss account*". Ratio analysis is a necessary tool in financial analysis. Ratio is defined as "*the indicated quotient of two mathematical expressions and as "the relationship between two or more things*" (Merriam, 1975 as cited by

Pandey, 1994). A ratio is a relative term hence a single ratio is meaningless unless it is compared with "*some standards*" (Antony & Reece, 1975 cited by Pandey, 1994).

Financial analysis can be performed by various stakeholders but the nature of analysis will depend on the interest and the objective of the analyst (Foster, 1986 cited by Pandey, 1994). Pandey (1994) continues by stating that short term-creditors or depositors are in a hurry to be paid their dues thus their interest is on the immediate payment ability of the firm as can be reflected on the firm's current liquidity position. Long-term creditors on the other hand cast their eyes wide and hence more concerned with the bank's future prospects of "*solvency and survival*". Shareholders interest is more on the bank's earning ability and on how geared it is and the degree of risk they may have to bear. Regulators may be concerned more about carrying out of business consistent with their rules and regulations while seeking to detect financial woes and prescribing remedies before going out of hand. Tax authorities in the other hand may be angling to see businesses, banks included, fulfilling their fiscal obligations by prompt payment of taxes as a source of revenue to the government. Managers' view of a bank's good financial condition and performance is when they are satisfied that they utilized the resources of the bank economically, effectively, and efficiently in fulfilling the interest and the objectives of all the various stakeholders (Moin, 2008; Ibrahim, 2015; Pandey, 1994). In this study, three financial condition and performance indicators namely; profitability, liquidity, risks and solvency has been used. This approach is similar to the one adopted by Kakakhel et al (2015) in Pakistan during the Global financial crisis (2007-2010).

3. Literature Review

Islamic banking scholars (Ali, 2011; Hanif, 2011; Jedidia & Hamza, 2014; Khan, 2011) note that Islamic financial institutions are under obligation to share their profits or losses with depositors and other users of their funds in accordance with the principle of *al-ghourm* that requires anyone who does not bear any risk not to claim any benefit. They argue that such mutual engagements have the potential of reducing "liquidity risks" and the effect of banking crunches. A study conducted by Ismal (2010) as cited by Jedidia & Hamza (2014) found out that "*Liquidity Risk Management practices by Islamic banks are not optimal*". Liquidity refers to the ability of a firm to settle its current financial obligations as they become payable (Pandey, 1994).Liquidity ratios are used to evaluate the bank's ability to pay their obligations as they arise. The analysis of these ratios are important as they enable a firm to detect and avoid liquidation at the behest of its creditors if early warnings are promptly acted upon [(Ross, Westerfield, & Jaffe, 2005) as cited by Moin, (2008)]. Banks face liquidity risk whenever they fail to strike a balance between deposits on one hand and withdrawals and advancement of loans on the other

hand [(Samad & Hassan,2000) as cited by Moin (2008)]. Liquidity is therefore examined under; loan to asset ratio (LAR) and loan to deposit ratio (LDR).

Johnes, Izzeldin & Pappas (2012) used a sample of 207 NIBs and 45 IBs while investigated the financial performance of IBs against NIBs across 18 Muslim dominated countries(2004-2009) "*using Data Envelopment Analysis (DEA)*", and reported no substantial variance in gross (on average) efficacy between the two banking models after the scale was reduced to "*a common frontier*". Conversely, the outcome differed when they used Meta-frontier analysis (MFA) as it revealed that Islamic model of banking was less efficient compared to the conventional model. The study ends by suggesting that each type of bank model can learn from the other in order to improve on their general efficiency. Usman and Khan (2012) carried out a comparative analysis of financial performance of IBs and NIBs in Pakistan (2007-2009) and their study concluded that the IBs growth rate is higher and lucrative relative to NIBs. Furthermore, IBs were found to be more liquid than counter parts. Three banks from each model on the basis of "*equivalent weight of capital invested and number of branches*" were taken as a sample. The results were realised after analysing various financial ratios using paired sample t-test. The ratios were; Return on Assets (ROA), Return on Equity (ROE), Earning Per Share (EPS), Loan to Debtor Ratio (LDR), Cash and Portfolio Investment Ratio (CPIR) and Loan to Asset Ratio (LAR). The researchers concluded that the poor performance of NIBs could be as a result of the general economic trend in Pakistan at the time affecting majorly the NIBs. They were also surprised that liquidity as was exhibited by IBs could go hand in hand with their profitability.

Onakoya and Onakoya (2013) in United Kingdom (2007-2009) while comparing financial performance between conventional banks and Islamic banks studied the top four Islamic banks and five conventional banks. The study was on the basis of selected financial ratios as performance indicators. They reported that CBs are more profitable than IBs which however are less prone to liquidity risk and are cost effective. In a study carried out by Tanim-Ul-Islam and Ashrafuzzaman (2015) on the financial performance between IBs and NIBs in Bangladesh using CAMEL test model between 2009 and 2013, a sample of five banks in each category was selected out of 30 commercial banks listed in Dhaka stock exchange. It concluded that there was no significant difference between the two sets of banks in terms of capital adequacy, management capability, and earnings but reported a significant difference in relations to asset quality.

Another study was also carried out by Kakakhel et al (2015) in Pakistan during the Global financial crisis (2007-2010) using three performance indicators namely; profitability, liquidity, and soundness. The impact of performance was analyzed using financial ratios. The financial ratios were; Return on Asset (ROA), Return on Equity (ROE), Loan to Asset Ratio (LAR), Loan to Deposit Ratio (LDR), Asset Utilization Ratio (AU), Debt to Equity Ratio (DER), and Income to Expense Ratio (IER). The study

concluded that there was no major difference in liquidity and profitability in the bank categories. Secondly, it was reported that IBs held more liquid assets compared to the NIBs which affected their profitability. Halkano (2012) studied the financial performance of IBs and NIBs in Kenya. The study included two IBs and a sample of five NIBs taken out of a population of 41 NIBs in Kenya. The banks were within the same level of ranking by the CBK and had an asset base of less than Ksh.10 billion. A mean was compared for each banking model against the industry averages. The financial performance indicators chosen were profitability, liquidity, efficiency, risk and solvency. He reported that on average NIBs performed better than the IBs for the duration of the period under review. IBs were better in liquidity dimension but NIBs on the other hand outperformed them with respect to profitability and efficiency. Conversely, IBs were better off with regard to risk and solvency.

Jamal (2013) in Kenya did a comparative study of financial performance of IBs and NIBs (2010 -2012, three year period) using a CAMEL.A sample of two banks each from both models is picked. He carries out a t-test to establish whether there is any significant difference between the financial performances of the two banking models. Using Ms-excel as a tool for data analyses, he discovers that NIBs overall do better than IBs in terms of financial performances but does not find any significant difference between the two models. Garo (2013) carried out a study on the factors influencing financial performance of IBs and NIBs in Kenya between 2009 and 2012.A sample of two IBs and eight NIBs was taken. The data obtained were analysed using correlation and regression analysis and results presented in tables and graphs. The study reveals that large banks are more profitable than other categories of banks of small sizes as IBs and the IBs are less profitable than NIBs in the same peer group which the study attributes to "relative market power theory". The study however concludes that Islamic banking model has a bright future notwithstanding their current state of affairs. Talam (2014) carried out an assessment of the determinants of financial performance of IBs and CBs in Kenya (2008-2013).A sample of 20 banks listed as "small" by the CBK Bank Annual Supervision Report was used. Two IBs and 18 CBs were studied. The multivariate analysis is applied using statistical package for social sciences (SPSS).The result reported is that CBs show a higher mean than the IBs in terms of financial performance determinants. The study also finds that liquidity plays only a moderate role in the financial performance of the two banking models and that performance is mostly affected by asset quality, capital adequacy, efficiency, and other indicators. The study ends by recommending to the Islamic banking models to find a way of properly managing their risks in order to curtail their probable losses.

3.1 Summary of Literature Review

While there is a mix of results as far as profitability is concerned, there seems to be a consensus that IBs are more liquid than the NIBs. Johnes, Izzeldin & Pappas (2012) investigating the performance of IBs as against NIBs across 18 Muslim dominated countries reported that Islamic model of banking was less efficient compared to the Non-Islamic model. Usman and Khan (2012) in Pakistan concluded that the IBs growth rate was higher and more profitable as compared to their Non-Islamic counterparts. In addition, IBs were found to be more liquid than NIBs. Onakoya and Onakoya (2013) in United Kingdom reported that CBs were more profitable than IBs which however were less prone to liquidity risk and were cost effective. A study by Tanim-Ul-Islam and Ashrafuzzaman (2015) reported higher liquidity associated with the IBs.

On the local scene, Halkano (2012) agrees that IBs are more liquid than their counter parts but seem not to connect the liquidity on the side of IBs as an element contributing to their overall poor performance whereas Talam (2014) concluded that the effect of liquidity on performance is not great but only moderate. Halkano's finding on Risk and Solvency is that IBs are better which is in contrast with Talam's finding which ends by recommending to the Islamic banking models to find a way of properly managing their risks in order to curtail their probable losses. This study investigated liquidity, profitability, risk and solvency aspects of these banking models. This approach is similar to the one adopted by Kakakhel *et al* (2015) in Pakistan during the Global financial crisis of the period 2007-2010.

4. Research Methodology

The study adopted a descriptive research design which was longitudinal in nature spanning six years from 2010 to 2015. The study population comprised 42 commercial banks in Kenya out of which only two banks are fully fledged IBs. These are Gulf African Bank (GAB) and First Community Bank (FCB). The study sample therefore included the only two fully fledged IBs in Kenya (Gulf African Bank with 17 branches and First Community Bank with 18 branches). IBs are under the "*peer group of small banks*" according to the Directory of Commercial Banks and Mortgage Finance Companies of Kenya. NIBs under that category were therefore also selected based on the average of between 10 and 18 branches. Usman & Khan (2012) selected each model on the basis of "*equivalent weight of capital invested and number of branches*". However, as it turned out for our case, only five qualified namely; African Banking Corporation (11 branches), Consolidated Bank of Kenya (18 branches), Guardian Bank Limited (11), Credit Bank Limited (15), and Fidelity Commercial Bank limited (13) (CBK, 2014). One bank (Charterhouse Bank ltd-10 branches) was knocked out as it was under statutory management (CBK, 2015), and another one, Equatorial Commercial Bank Limited with

12 branches, was a perennial loss maker from 2009-2014 making a modest profit only in 2013 and thus also disqualified. Consequently, purposive sampling was considered appropriate for the study.

The data was collected from the audited financial statements of the selected banks for the period 2010-2015 (six years) under review. The period between 2010 and 2015 was selected because between these periods, the only Islamic banks to be reviewed were both incorporated in 2008 or thereabout and thus had overgrown their teething problems and therefore able to compete on equal footing with their Non-Islamic counter parts. Harris (2012) as cited by Jamal (2013) noted that the two IBs in Kenya managed to break even within three years of their operations hence it was only fair to evaluate their performances from the year 2010 onwards with the entrenched NIBs. Jamal (2013) after carrying out a comparative study of financial performance of IBs and CBs in Kenya (2010 to 2012-three years) suggested an extended period of study, hence the period covered by this study.

Three broad categories of financial ratios, namely profitability ratios, liquidity ratios and risk and solvency ratios were calculated. This approach is similar to the one adopted by Kakakhel *et al* (2015) and has been similarly used by other researchers. The averages of each ratio were computed for each bank category and a comparison made to evaluate the differences. The averages of the ratios for each model were compared to the industry averages as given in the CBK annual report of 2015. The study used the Discriminant Function Analysis model. The Null Hypothesis was that the means of the two groups on the Discriminant Function, the centroids, are equal. Centroids are the mean discriminant score for each group. The standardized discriminant function coefficients serve the same purpose as beta weights in Multiple Regressions. One Way-Repeated Measures Analysis of Variance (rANOVA) model was another model used in the analysis.

5. Analysis and Findings

The study sought to find out if there is significant difference in financial performance and condition between Islamic banks and Non Islamic Banks. The study hypothesis was formulated as follows:

H_0: There is no significance difference between Islamic Banks and Non Islamic Banks in terms of their financial performances and conditions in Kenya.

Table 1: Descriptive statistics

Bank Type	N	Mean	Sd	Min	Max
Non-Islamic Banks					
DTER	6	7.474667	0.708439	6.342000	8.358000
DTAR	6	0.875333	0.011639	0.854000	0.886000
EM	6	8.235333	0.786160	7.342000	9.358000
ROA	6	1.090667	0.659872	0.326000	1.972000
ROE	6	8.719333	5.168986	2.494000	15.322000
LAR	6	0.593667	0.049176	0.530000	0.660000
LDR	6	0.754000	0.089933	0.658000	0.902000
Islamic Banks					
DTER	6	7.696803	1.017699	6.659821	9.119034
DTAR	6	0.880169	0.015666	0.862829	0.901072
EM	6	8.696803	1.017699	7.659821	10.119030
ROA	6	1.100000	0.844145	-0.380000	2.105000
ROE	6	8.179167	7.919269	-5.605000	18.950000
LAR	6	0.620314	0.062100	0.531591	0.687786
LDR	6	0.733887	0.090723	0.614890	0.848553
Total					
DTER	12	7.585735	0.844018	6.342000	9.119034
DTAR	12	0.877751	0.013398	0.854000	0.901072
EM	12	8.466068	0.899882	7.342000	10.119030
ROA	12	1.095333	0.722390	-0.380000	2.105000
ROE	12	8.449250	6.382088	-5.605000	18.950000
LAR	12	0.606991	0.055189	0.530000	0.687786
LDR	12	0.743944	0.086763	0.614890	0.902000

(DTAR - Debt to asset ratio; **DTER -** Debt to equity ratio; **EM -** Equity multiplier;
ROA - Return on Equity; **ROE -** Return on Asset; **LAR** - Loan to Asset Ratio;
LDR - Loan to Deposit Ratio)

Concerning profitability, the table above shows that NIBs in Kenya are better as measured by ROE (8.72 as against 8.18) but there is no marked difference in terms of ROA (1.090667 as against 1.100000). By looking at the variations as revealed by standard deviations, there seem to be more volatility on the side of IBs as compared to NIBs.

In terms of liquidity, the table shows that NIBs are worse off as measured by LDR (0.754000 as against 0.733887) but are better when measurement is in terms of LAR (0.593667 as against 0.620314). Here the lower the ratio the better the liquidity position and the higher the ratio the danger it heralds to the bank. When a bank gives out more loans relative to the deposits it possesses, it exposes itself in case of a bank rush by the deposit holders which may and do occur at times. So LDR at 75.4% means that the NIBs may be fiddling with financial risk compared to IBs if they are not prepared for the back

lash should depositors decide to withdraw in mass. IBs at 73.33887% are relatively better. LAR reveals the position when loans granted are compared with total assets.

Concerning risk and solvency, the table shows that IBs are worse off with respect to risk and solvency ratios (DTER, DTAR and EM: 7.697, 0.880 & 8.697 as against 7.475, 0.875 and 8.235). The solvency position of IBs is confirmed by the wide variations of the relevant variables (DTER, DTAR, and EM: 1.017699, 0.015666 & 1.017699 for IBs and 0.708439, 0.011639 and 0.786160 for NIBs) when compared against each other in terms of standard deviations. So the higher debt ratios proved that IBs had aggressively financed its growth with outsiders' funds which might have had negative consequences on their solvency position were the debt holder to demand for immediate settlement of their dues.

Table 2: Ratios for Comparison with Industry

Detail	Islamic banks averages	Non Islamic banks averages	Industry ratios as at 2015	Minimum statutory ratios
ROA	1.10%	1.09%	3.86%	N/A
ROE	8.18%	8.72%	24.4%	N/A
LAR=liquidity ratios	100-62.03 = 37.97%	100-59.38=40.62%	38.3%	20%
LDR=liquidity ratios	100-73.39 = 26.61%	100-75.25 = 24.75%	38.3%	20%

The table above shows that both categories of the banks (both under peer group of small banks) are performing poorly by making profits below the industry averages. This supports the finding that bank size positively affects the financial performance of both categories of the banks in Kenya (see for example Talam, 2014 and Thomi, 2014). In terms of Liquidity as measured by LAR, IBs at 37.97 % are slightly below the Industry Averages (38.3%) while NIBs at 40.62% performed better. Both of the models are far better than the Minimum Statutory Requirements (20%). However, when liquidity is measured by LDR, they perform less than industry averages but remain more liquid than statutorily imposed.

Table 3: Correlation analysis of the dependent and independent variables

	DTER	DTAR	EM	ROA	ROE	LAR	LDR
DTER	1						
DTAR	0.9763*	1					
EM	0.8812*	0.8906*	1				
ROA	-0.4612	-0.4708	-0.4816	1			
ROE	-0.3319	-0.3297	-0.3459	0.9766*	1		
LAR	-0.5312	-0.3876	-0.4872	0.0877	0.0051	1	
LDR	-0.5814	-0.4562	-0.5745	-0.0359	-0.0992	0.9058*	1

The table above indicates that there is a strong positive linear relationship between DTAR and DTER, EM and DTER, EM and DTAR, ROA and ROE, as well as LDR and LAR across the banks. The table also indicates that there is a negative correlation between ROA and DTAR. This shows that as debt to asset ratio increases, it brings pressure to bear on the generated bank assets which have to be consumed in order to settle the debts and thus resulting to lowering of the profits at a proximate rate of 47.08 % as measured by the ROA. There is also a negative correlation-ship between ROE and DTER. This means that as DTER increases, it lowers ROE by approximately 33.19%.It means too much debt in the capital structure of banks can have adverse effects on the earnings of Equity holders.

It can also be seen that there is a negative linear correlation between LAR and LDR on one hand and DTER and DTAR on the other hand. This means that debt negatively affects a bank liquidity position. LAR is weakly positively correlated with ROA and ROE (8.77% and 0.51%) respectively. It means that liquidity position has less effect on the banks in terms of their profitability when considered against the backdrop of LAR. But when the comparison is reduced to LDR, the equation changes and we witness weak negative linear relation-ship with ROA and ROE (3.59% and 9.92%) respectively. It still boils down to one thing that liquidity has less effect on the banks performance. Also noted is the existence of a negative linear relationship between DTAR, DTER, and EM on one hand and ROA and ROE on the other side. The lesson being learnt is that as the bank increases debts in its capital structure, it is likely to face volatile earnings due to interest expenses (Onakoya & Onakoya, 2013).

One-way repeated measures analysis of variance (rANOVA) was used to determine if there was a significant difference in the means of each of the seven ratios between the two types of banks over its time course (6-year period). The significance of the difference was measured at 95% confidence level. The results showed that there were no significant differences in the means of the ratios DTER, DTAR, EM, ROA, ROE and LAR between Islamic and Non-Islamic banks over the six-year period, $F(5,5) = 0.63$, $p=0.758$; $F(5,5) = 0.56$, $p=0.729$; $F(5,5) = 1.35$, $p=0.374$; $F(5,5) = 0.22$, $p=0.938$; $F(5,5) = 0.37$, $p=0.850$; $F(5,5) = 4.23$, $p=0.070$.The results however showed that there was a statistical significant difference in the means of the LDR between Islamic and Non-Islamic banks over the six-year period, $F (5,5) = 8.79$, $p=0.016$.This indicates that IBs show good financial condition in terms of liquidity as compared to NIBs as measured by Loan to Deposit Ratio (LDR).

Table 4: Profitability under ROA Analysis

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. anova profitability_roa bank_type years, repeated(years)

                           Number of obs =       12     R-squared     =  0.1820
                           Root MSE      = .969086     Adj R-squared = -0.7996

                  Source |  Partial SS    df       MS           F     Prob > F
-------------------------+------------------------------------------------------
                   Model |  1.04467999     6   .174113331       0.19     0.9682
                         |
                bank_type |   .000261332     1   .000261332       0.00     0.9873
                   years |  1.04441866     5   .208883731       0.22     0.9377
                         |
                Residual |  4.69563874     5   .939127749
-------------------------+------------------------------------------------------
                   Total |  5.74031873    11   .521847157


Between-subjects error term:  bank_type
                     Levels:  2          (1 df)
     Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                     Huynh-Feldt epsilon        =     .
                                     Greenhouse-Geisser epsilon =  0.2000
                                     Box's conservative epsilon =  0.2000

                                                  ---------- Prob > F ----------
                  Source |     df       F      Regular     H-F      G-G       Box
-------------------------+------------------------------------------------------
                   years |      5    0.22       0.9377       .      0.7195    0.7195
                Residual |      5
-------------------------+------------------------------------------------------
```

ROA---F(5,5) = 0.22, p = 0.938; There is no significant difference in terms of return on assets as indicated by the output above.0.938>0.05

Table 5: Profitability under ROE Analysis

```
. anova profitability_roe bank_type years, repeated(years)

                         Number of obs =      12     R-squared     =  0.2721
                         Root MSE      = 8.07605     Adj R-squared = -0.6013

                  Source | Partial SS    df       MS           F     Prob > F
              -----------+----------------------------------------------------
                   Model |  121.928965     6  20.3214942       0.31     0.9059
                         |
               bank_type |  .875339405     1  .875339405       0.01     0.9123
                   years |  121.053626     5  24.2107251       0.37     0.8496
                         |
                Residual |  326.112526     5  65.2225053
              -----------+----------------------------------------------------
                   Total |  448.041491    11  40.7310447


Between-subjects error term:  bank_type
                     Levels:  2         (1 df)
     Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                          Huynh-Feldt epsilon        =       .
                                          Greenhouse-Geisser epsilon =       .
                                          Box's conservative epsilon =  0.2000

                                            ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
              -----------+----------------------------------------------------
                   years |      5     0.37   0.8496      .        .     0.6516
                Residual |      5
              -----------+----------------------------------------------------
```

ROE -----F(5,5) = 0.37, p = 0.850; similarly, the output indicates no significant difference between the banks when profits are measured by return on equity.0.850>.05

Table 6: Liquidity under LDR Analysis

```
. anova liquidity_ldr bank_type years, repeated(years)

                         Number of obs =      12     R-squared     =  0.8993
                         Root MSE      =  .04083     Adj R-squared =  0.7785

                  Source |  Partial SS    df       MS           F     Prob > F
              -----------+----------------------------------------------------
                   Model |  .074471226     6  .012411871       7.45     0.0218
                         |
               bank_type |   .00121357     1   .00121357       0.73     0.4325
                   years |  .073257657     5  .014651531       8.79     0.0162
                         |
                Residual |  .008335254     5  .001667051
              -----------+----------------------------------------------------
                   Total |   .08280648    11  .007527862

Between-subjects error term:  bank_type
                     Levels:  2         (1 df)
     Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                          Huynh-Feldt epsilon        =       .
                                          Greenhouse-Geisser epsilon =  0.2000
                                          Box's conservative epsilon =  0.2000

                                            ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G       Box
              -----------+----------------------------------------------------
                   years |      5     8.79   0.0162      .      0.2071   0.2071
                Residual |      5
              -----------+----------------------------------------------------
```

Here F(5,5) = 8.79, p = 0.0162; and therefore there is statistical significant difference in liquidity between the banks as measured by LDR. This shows that IBs are more liquid than their counter parts (0.0162<0.05).

Table 7: Liquidity under LAR Analysis

```
. anova liquidity_lar bank_type years, repeated(years)

                         Number of obs =      12     R-squared     =  0.8210
                         Root MSE      = .034634     Adj R-squared =  0.6062

                  Source |  Partial SS    df       MS           F     Prob > F
              -----------+----------------------------------------------------
                   Model |  .027506221     6   .00458437       3.82     0.0814
                         |
               bank_type |  .002130307     1  .002130307       1.78     0.2401
                   years |  .025375914     5  .005075183       4.23     0.0697
                         |
                Residual |  .005997602     5   .00119952
              -----------+----------------------------------------------------
                   Total |  .033503823    11  .003045802


Between-subjects error term:  bank_type
                     Levels:  2          (1 df)
     Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                          Huynh-Feldt epsilon        =     .
                                          Greenhouse-Geisser epsilon =  0.2000
                                          Box's conservative epsilon =  0.2000

                                            ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
              -----------+----------------------------------------------------
                   years |      5     4.23   0.0697      .      0.2881   0.2881
                Residual |      5
              -----------+----------------------------------------------------
```

F (5, 5) = 4.23, 0.0697 this indicates that there is no statistical significant difference in liquidity between the means of the ratios of the banks as measured by LAR (0.0697>0.05).

.

Table 8: Risk and Solvency under DTAR Analysis

```
. anova risksolvency_dtar bank_type years, repeated(years)

                         Number of obs =      12     R-squared     =  0.3826
                         Root MSE      = .015615     Adj R-squared = -0.3582

                  Source |  Partial SS    df       MS           F     Prob > F
              -----------+----------------------------------------------------
                   Model |  .000755509     6  .000125918       0.52     0.7778
                         |
               bank_type |  .000070154     1  .000070154       0.29     0.6147
                   years |  .000685355     5  .000137071       0.56     0.7287
                         |
                Residual |  .001219064     5  .000243813
              -----------+----------------------------------------------------
                   Total |  .001974573    11  .000179507


Between-subjects error term:  bank_type
                     Levels:  2          (1 df)
     Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                          Huynh-Feldt epsilon        =      .
                                          Greenhouse-Geisser epsilon =      .
                                          Box's conservative epsilon =  0.2000

                                            ------------ Prob > F ------------
                  Source |     df      F    Regular    H-F      G-G      Box
              -----------+----------------------------------------------------
                   years |      5    0.56   0.7287      .        .     0.5904
                Residual |      5
              -----------+----------------------------------------------------
```

F(5,5) = 0.56, p = 0.729 this is an indication that there was no statistical significant difference between the means of the ratios as measured by DTAR between the two banking models (0.7287>0.05).

Table 9: Risk and Solvency under DTER Analysis

```
. anova risksolvency_dter bank_type years, repeated(years)

                           Number of obs =      12     R-squared     =  0.3968
                           Root MSE      = .972304     Adj R-squared = -0.3271

                  Source |  Partial SS    df       MS           F     Prob > F
-------------------------+----------------------------------------------------
                   Model |  3.10914434     6  .518190723        0.55     0.7576
                         |
                bank_type |  .148033447     1  .148033447        0.16     0.7086
                   years |  2.96111089     5  .592222178        0.63     0.6899
                         |
                Residual |  4.72687694     5  .945375388
-------------------------+----------------------------------------------------
                   Total |  7.83602128    11  .712365571


Between-subjects error term:  bank_type
                     Levels:  2          (1 df)
      Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                     Huynh-Feldt epsilon        =     .
                                     Greenhouse-Geisser epsilon =  0.2000
                                     Box's conservative epsilon =  0.2000

                                                  ---------- Prob > F ----------
                  Source |     df       F      Regular     H-F      G-G       Box
-------------------------+----------------------------------------------------
                   years |      5    0.63       0.6899       .      0.5738    0.5738
                Residual |      5
-------------------------+----------------------------------------------------
```

The result shows that there was no significant difference in the means of the ratios of DTER between Islamic and Non-Islamic banks over the six-year period, F(5,5) = 0.63, p=0.6899 (0.6899>0.05).

Table 10: Risk and Solvency under EM Analysis

```
. anova risksolvency_em bank_type years, repeated(years)

                       Number of obs =      12     R-squared     =  0.6053
                       Root MSE      = .838562     Adj R-squared =  0.1316

                Source | Partial SS    df       MS           F     Prob > F
            -----------+----------------------------------------------------
                 Model |  5.3917275     6  .898621251       1.28     0.4029
                       |
             bank_type |  .638862054    1  .638862054       0.91     0.3843
                 years |  4.75286545    5   .95057309       1.35     0.3744
                       |
              Residual |  3.5159298     5  .703185961
            -----------+----------------------------------------------------
                 Total |  8.90765731   11  .809787027

Between-subjects error term:  bank_type
                     Levels:  2         (1 df)
     Lowest b.s.e. variable:  bank_type

Repeated variable: years
                                          Huynh-Feldt epsilon        =     .
                                          Greenhouse-Geisser epsilon =  0.2000
                                          Box's conservative epsilon =  0.2000

                                            ------------ Prob > F ------------
                Source |     df      F    Regular    H-F      G-G      Box
            -----------+----------------------------------------------------
                 years |      5     1.35   0.3744      .      0.4522   0.4522
              Residual |      5
            -----------+----------------------------------------------------
```

The result shows that there was no significant difference in the means of the ratios of EM between Islamic and Non-Islamic banks over the six-year period, $F(5,5) = 1.35$, $p=0.374$ ($0.374>0.05$).

6. Discussion of Findings

The objective of the study was to compare the financial performance and condition of IBs and NBs in Kenya. Secondary data was used originating from the audited financial statements of the relevant banks under the study. The ratios calculated revealed varied results. On financial performance, the Profitability ratios reveal that NIBs are better as measured by ROE (8.72 as against 8.18) but there is no marked difference in terms of ROA (1.090667 as against 1.100000). Discriminant Function Analysis model also corroborated the results by indicating that ROE has a higher absolute value and thus more predictive than the other variables. Jamal (2013) in Kenya also discovered that NIBs overall do better than IBs in terms of financial performances but does not find any significant difference between the two models which is also supported by Tanim-Ul-

Islam and Ashrafuzzaman (2015) in Bangladesh. The Industry ratios confirm that small banks do not perform as well as large banks and that the IBs are less profitable than NIBs in the same peer group which Garo (2013) study attributes to "relative market power theory". Therefore, Bank size positively affects the financial performance of both categories of the banks in Kenya [(see for example Talam (2014) and Thomi (2014)]. According to Bhattacharyya et al., (1997) as cited by Onakoya & Onakoya (2013), size normally has a positive correlation with the technical efficiency in the firms' performance in the banking industry and therefore leads to better profitability prospects.

The liquidity position of IBs was better off on the basis of LDR although slipped on the basis of LAR. It also came out that there was statistical significant difference in liquidity conditions between the banks. LDR between IBs and NIBs over the six-year period was found under analysis thus; F (5,5) = 8.79, p=0.016.This indicated that IBs showed good financial condition in terms of liquidity as compared to NIBs as measured by Loan to Deposit Ratio. This corroborates Halkano (2012) and Jamal (2013) in Kenya, though to both of them there was no statistical significance difference in liquidity between the two models. Usman and Khan (2012) in Pakistan also found IBs to be more liquid than their counter parts and this was also reported by Kakakhel *et al* (2015) in the same country. Tanim-Ul-Islam and Ashrafuzzaman (2015) on the financial performance between IBs and NIBs in Bangladesh also found Islamic Banks to be more liquid than the NIB. Kamaruddin & Mohd (2013) in Malaysia after a similar result attributed it to the need of IBs to be necessarily conformist and strictly adhere to the Islamic laws in safe-guarding the concern of their clients.

Onakoya & Onakoya (2013) study in the United Kingdom similarly found IBs to be less prone to liquidity risk as compared to NIBs. Ali (2011) tried to explain the reasons behind large amount of liquidity on the side of IBs and gave two reasons. First, IBs don't have lender of last resort facility and given that they cannot access interbank market and secondly, that excess liquidity is predominant also due to "*lack of interest free short term investment*". We also found that LAR is weakly positively correlated with ROA and ROE (8.77% and 0.51%) respectively. It means that liquidity position has less effect on the banks in terms of their profitability when considered against the backdrop of LAR.But when the comparison is reduced to LDR, the equation changes and we witness weak negative linear relation-ship with ROA and ROE (3.59% and 9.92%) respectively. It still boils down to one thing that liquidity has less effect on the banks performance. The financial conditions as revealed by Risk and Solvency ratios indicate that IBs are less solvent as compared to NIB (DTER, DTAR and EM: 7.697, 0.880 & 8.697 as against 7.475,0.875 and 8.235).This is not good news as it confirms the contention of Damodaran (2003) and Fisher (1989) as cited by Ng'ang'a (2013) if it turns out to be true, that an increase in debt level naturally aggravates a firm's financial wellbeing.

Nevertheless, this study did not find any statistical significant difference in solvency between the two models. This corroborates the finding of Halkano (2012) in Kenya.

7. Conclusions

The study found out that NIBs were better off on the basis of ROE (8.72% as against 8.18%) but failed to replicate the same on the basis of ROA (1.09% as against 1.10%). On Liquidity aspect, there were mixed results as IBs were better in terms of LDR (73.39% as against 75.40%) but failed to maintain the position on the basis of LAR (62.03% as against 59.38%).But it turned out that the Liquidity position of IBs was statistically significant in terms of LDR. The question now is, does the liquidity position of IBs have something to do with their poor performance?, the answer however is not an emphatic no but found in the correlations matrix that indicated weak linear correlation between ROA and ROE on one hand and LAR and LDR on the other hand. This however only implies that liquidity has less effect but it cannot be concluded that it has no effect at all. On Liquidity as measured by LAR, IBs at 37.97% perform below Industry Averages (38.3% as at 2015) but NIBs at 40.62% are better off. On the other hand, the liquidity of both streams is better than Minimum Statutory Requirement of 20%. However, when liquidity is measured by LDR, both categories (26.61% and 24.75% for IBs and NIBs respectively) scored less than industry averages of 38.3% but still more liquid than statutorily imposed. The data also revealed that IBs were less solvent and thus faced more risk as compared to NIBs which were better off. On the basis of the data; (DTER, DTAR and EM: 7.697, 0.880 & 8.697 as against 7.475, 0.875 and 8.235).

What came out of the study is that IBs seem to be relatively more liquid but less solvent. That means as much as they are able to attract funds from outside which enhances their liquidity, they are not able in equal measure to identify viable investment opportunities in which to invest those funds and as a result they become heavily indebted and as a consequence, the degree of their solvency is reduced. Some people have attributed this to lack of interest free investments in which they are allowed to engage in the IBs have more debts in their capital structure than their counter parts. Financial leverage portends both benefits and risks at the same time thus act as a double-edged sword because it has the potential of increasing shareholders earnings as well as intensifying their risk exposures. As long as return on capital employed is higher than the interest rate, a firm can borrow more funds as this will benefit the shareholders as they “trade on equity”. Conversely, if rate of interest is higher than return on capital employed, the risk outweighs the benefits. The IBs seem to be acting in the contrary in this respect as they are relatively geared but perform below par. There is a negative linear relationship between DTAR, DTER, and EM on one hand and ROA and ROE on the other side. As the bank increases debts in its capital structure,

the earnings become volatile due to interest expenses. This is witnessed in both categories of the banks.

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