

**EFFECT OF CAPITAL STRUCTURE ON THE PROFITABILITY OF FULLY  
FLEDGED ISLAMIC BANKS IN KENYA**

**MOHAMED MOHAMUD HAJI**

**D61/84449/2016**

**A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF  
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS  
UNIVERSITY OF NAIROBI**

**2017**

## **DECLARATION**

This project is my own original work and to the best of my knowledge has not been previously presented for the award of a degree in this and/ or any other university.

**Signed**.....

**Date**.....

**Mohamed Mohamud Haji**

**Reg No.D61/84449/2016**

## **SUPERVISOR**

This project has been presented for examination with my approval as the supervisor duly appointed by the university.

**Signed**.....

**Date**.....

**Mr. James M. Karanja**

Supervisor,

Department of Finance and Accounting,

School of Business, University of Nairobi.

## **ACKNOWLEDGEMENT**

In the name of Allah, Most Gracious and Most Merciful.

Alhamdulillah, All praises to Allah (SWT) for giving me the strength, resources including the life and His blessing in completing this project.

My deepest gratitude goes to my loving parents; mother Amina Mohamed Warsame, father Mohamud Haji Adan and uncles Ahmed Adan, Yussuf Adam and Hassan Warsame for their unconditional support, sponsoring and inspiring me to be a better person throughout life. Special acknowledgment and gratitude goes to Hamdi Mohamed and Nasra Abdulkadir for their moral support.

Special appreciation goes to my supervisor, Mr. James Mwangi Karanja for his guidance, cooperation, continued support and most importantly for his invaluable advice which was not limited to the project but on knowledge techniques and pointing to practical day-to-day use of it.

I would like to express my appreciation to the school of business's lecturers, who taught me, and the supporting staff for their support during my undergraduate and graduate tenures at University of Nairobi.

Lastly, sincere thanks to colleagues; Abdihakim Ebrahim of Texas Energy Ltd, Susanne Martin of European Union Delegation to Somalia and my university classmates; Muzamil Adan, Farah Abdirizak, Abdullahi Mohamed and Ibrahim Adan for the moral support during our study the last 2 years.

## **DEDICATION**

I dedicate this project to my mother and father who have unconditionally supported throughout my life. I love them so much. May Allah (SWT) bless them with a good, long happy, healthy and prosperous life.

# TABLE OF CONTENT

<b>DECLARATION</b> .....	ii
<b>ACKNOWLEDGEMENT</b> .....	iii
<b>DEDICATION</b> .....	iv
<b>LIST OF TABLES</b> .....	vii
<b>LIST OF FIGURES</b> .....	viii
<b>ABBREVIATIONS &amp; ACRONYMS</b> .....	ix
<b>ABSTRACT</b> .....	x
<b>CHAPTER ONE: INTRODUCTION</b> .....	1
1.1 Background .....	1
1.2 Research Problem.....	6
1.3 Research Objectives .....	10
1.4 Value of the Study.....	10
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	12
2.1 Introduction .....	12
2.2 Theoretical Review .....	12
2.3 Determinants of Profitability of Islamic Banks.....	16
2.4 Empirical Review .....	18
2.5 Conceptual Framework .....	20
2.6 Summary of Literature Review .....	21
<b>CHAPTER THREE: RESEARCH METHODOLOGY</b> .....	22
3.1 Introduction .....	22
3.2 Research Design.....	22

3.3 Population.....	22
3.4 Data Collection.....	22
3.5 Data Analysis .....	23
<b>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS .....</b>	<b>25</b>
4.1 Introduction .....	25
4.2 Response Rate .....	25
4.3 Descriptive Statistics.....	26
4.4 Correlation Analysis.....	41
4.5 Regression Analysis .....	45
4.6 Discussions.....	51
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ..</b>	<b>55</b>
5.1 Introduction .....	55
5.2 Summary of the Findings .....	55
5.3 Conclusion.....	58
5.4 Recommendations .....	59
5.5 Limitations of the Study.....	60
5.6 Suggestion for Further Research.....	61
<b>REFERENCES.....</b>	<b>62</b>
<b>APPENDICES.....</b>	<b>66</b>
<b>APPENDIX 1: DATA EXTRACTION EXCEL SHEET .....</b>	<b>66</b>
<b>APPENDIX II: LIST OF CBK LICENSED FULLY FLEDGED ISLAMIC COMMERCIAL BANKS IN KENYA .....</b>	<b>67</b>
<b>APPENDIX III: DATA USED FOR THE STUDY .....</b>	<b>68</b>

## LIST OF TABLES

Table 4.1: Means and Standard Deviations .....	26
Table 4.2: Skewnes and Kurtosis.....	27
Table 4. 3: ROA as a Measure of Profitability .....	42
Table 4.4: ROE as a Measure of Profitability.....	44
Table 4.5: Regression Results Before Controlling for Size and ROA as DV.....	46
Table 4.6: Regression Results after Controlling for Size and ROAs as DV.....	47
Table 4.7: Regression Results Before Controlling for Size and ROE as DV .....	49
Table 4.8: Regression Results after Controlling for Size and ROE as DV.....	50

## LIST OF FIGURES

Figure 2.1: Conceptual Framework .....	20
Figure 4.1: Gulf African Bank GAB Profitability .....	29
Figure 4. 2: Financial Leverage .....	30
Figure 4. 3: Debt Ratio.....	31
Figure 4. 4: Capital Adequacy .....	32
Figure 4. 5: Customer Deposit Leverage .....	33
Figure 4. 6: Retained Earnings Leverage.....	34
Figure 4.7: Size .....	35
Figure 4. 8: First Community Bank FCB Profitability .....	36
Figure 4. 9: Financial Leverage .....	37
Figure 4. 10: Debt Ratio.....	37
Figure 4.11: Capital Adequacy .....	38
Figure 4. 12: Customer Deposit Leverage .....	39
Figure 4. 13: Retained Earnings Leverage.....	40
Figure 4. 14: Size .....	41



## **ABBREVIATIONS & ACRONYMS**

<b>BIMB</b>	Islamic bank Islam Malaysia Berhad
<b>CBK</b>	Central Bank of Kenya
<b>CMA</b>	Capital Market Authority
<b>DE</b>	Debt Equity Ratio
<b>DIBK</b>	Dubai Islamic Bank Kenya
<b>DV</b>	Dependent Variable
<b>FCB</b>	First Community Bank
<b>GAB</b>	Gulf African Bank
<b>IV</b>	Independent Variable
<b>ROA</b>	Return on Asset
<b>ROE</b>	Return on Equity
<b>SPSS</b>	Statistical Package for Social Sciences

## ABSTRACT

Capital structure is very significant aspect for any business sustainability. It is usually challenging for different organizations to establish the right mix of Debt and Equity. Many organizations prefer to utilize debt financing in the capital structure plans in order to increase their levels of performance. The purpose of this project was to investigate the effect of capital structure on the profitability of fully fledged Islamic banks in Kenya. The project specifically sought to examine how financial leverage; debts ratio capital adequacy; customer deposit leverage retained earning leverage and size affected profitability of fully fledged Islamic banks in Kenya. The project adopted descriptive research design. The target population was three Gulf of African Bank, First Community Bank and Dubai Islamic Bank) fully fledged Islamic Banks in Kenya. The project used a census approach. Secondary data was used in the project and it was collected using data extraction excel sheet. The collected data was coded into SPSS and the analysis was done using descriptive and inferential statistics. Descriptive statistics included use of Means, Standard deviations, Skewness and Kurtosis. Inferential statistics involved correlation and regression analysis. The analyzed data was presented using tables and charts. The project established that when Return on Assets (ROA) was used as a measure of profitability of full-fledged Islamic banks in Kenya, correlation results indicated an retained earnings to total assets had significant influence on profitability of fully fledged Islamic banks in Kenya measured by ROA ( $r=.715$ ,  $P=0.000<0.05$ ). Using ROE as a measure of profitability of fully fledged Islamic banks in Kenya, correlation analysis results showed that retained earnings to total assets had significant influence on profitability of fully fledged Islamic banks in Kenya measured by ROA ( $r=.683$ ,  $p=0.000<0.05$ ). From regression analysis results, when ROA was used a measure of profitability and before controlling for size, the effect of customer deposit leverage ( $p=0.041<0.05$ ) and retained earnings leverage ( $p=0.000<0.05$ ) was significant. After controlling for size and ROA as dependent variable, only customer deposit leverage was significant in explaining the effect of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya  $p=0.000<0.05$ . Before controlling for size and ROE as a measure of profitability, both customer deposit leverage  $p=0.019<0.05$  and retained earnings leverage  $p=0.000<0.05$  had significant effect on return on equity as a measure of profitability of full-fledged Islamic banks in Kenya. When the relationship between independent variables and ROE was controlled by size, only retained earning leverage had significant effect on ROE as a measure of profitability of fully fledged Islamic banks in Kenya. In conclusion, return on asset was an efficient measure of profitability of profitability of full-fledged Islamic banks in Kenya  $R^2=58.6\%$  than ROE whose  $R^2=49.2\%$ . The study concludes that retained earnings leverage had strong direct relationship with ROA as a measure of profitability of fully fledged Islamic banks in Kenya; Customer deposit leverage and Retained earnings leverage had significant effect on ROA as a measured of profitability of full-fledged Islamic banks in Kenya before the controlling effect of size. In addition, return on asset was an efficient measure of profitability of profitability of full-fledged Islamic banks in Kenya. However, size has a significant controlling effect in assessment of profitability of fully fledged Islamic banks in Kenya. The study recommends that top management of the Islamic banks in Kenya should enhance their retained earning leverage by expanding their investment strategy that increases profits which transpires into increased retained earnings.

## **CHAPTER ONE: INTRODUCTION**

This chapter covers the background of the study by highlighting how capital structure affects an organization profitability of fully fledged Islamic Banks in Kenya. It also covers the statement problem as well as the research questions and research objectives. Significance of the study is also covered in this chapter as well.

### **1.1 Background**

Capital structure is very significant issue for any business sustainability. It is usually challenging for different organizations to establish the right mix of Debt and Equity. The decision is key because there is need to maximize the return on investment regardless of any industry. Through capital structure, organizations have the capability of dealing with the competitive nature of the business environment that is always dynamic. Any organization is at liberty to choose and implement any form of capital structure arrangement. This involves debt and equity financing of the firm. Other sources include issue of convertible bonds, or trade bond swaps, lease financing as well as use of warrants. A firm can therefore consider any form of capital structure combination at any given time for as long as it caters for the shareholders need for wealth creation and the organizations overall market value. According to Myers (2001), an understanding of capital structure mix of securities and sources of financing is very key to the sustainability of any business.

There is need for an enterprise to consider the importance of capital structure in its day to day operations so that optimal benefits can be achieved from it. Consequently, it is capital structure plans should adhere to the changing demands in the market in order for firms to

maximize returns from any arrangement. Different studies have been done previously with regard to this subject. Harvey (2010) carried out a study on whether corporate plans have any different conditions on determining financial constraint. The feedback of the study held that constraint organizations had reduced investment on new technology, employment and capital spending and reduced credit uptake from commercial banks. This was done by such firms for fear of banks charging high rates on their products. As such they resulted in selling more of their assets to finance their operations. Erasmus (2008) noted that financial performance measures involves liquidity and profitability of any given firm that offers valuable platform for shareholders to determine their past performance relative to their capital infection.

### **1.1.1 Capital Structure**

Capital structure of any firm is regarded as a choice between equity and debt in terms of long-term investment for the benefit of shareholders. The amount of debt an organization utilizes to finance is highly dependent on the terms and conditions of such product; that is the interest rate charged together with different levels of taxes (cost of financial distress, personal income tax, corporate income taxes and withholding taxes). Capital structure for banks and other financial institutions are regulated by Central Bank of Kenya (CBK) since is the regulator for financial institutions and is the bank of the last resort. The regulates on capital structure framework for banks in Kenya so as to enforce law and order, regulate on cases of money laundering such that banks do not use fraudulent means to access capital or to finance their businesses with unclean money. At the same time CBK regulates on sources of funding for banks so as to create a level playing field on financial institutions and markets in Kenya.

According to Hovakimiam, Opler and Titman (2002), when a firm is charged lower interest rates on a product then this motivates such a firm to go for more but if the leverage is higher it encourages financial distress to occur. When the situation is so demanding, organizations are deemed to be unable to meet its obligation as required and this leads to such firms to be rendered redundant because of bankruptcy. In the long-run, such cases leads to different legal and administrative issues raised on cost implication since firms end up selling their assets instead of notwithstanding the high level of bankruptcy can lead to a firm stock levels to be less attractive to potential investors hence affecting their future prospects negatively (Flannery and Rangan, 2004).

According to Barine (2012), it is detrimental for an organization to raise funds that are enough for its operations from its savings. The dilemma arises when lenders of capital demand high interest rates on their products while on the other hand the creditors demand flexible terms of lower rates on the cost of credit. Therefore, for any particular firm, they have to strike a deal among the two case scenarios in order for them to prevail in their endeavors. Increasing the proportion of debt from an organization capital structure allows them to leverage on high returns, however, if the extreme conditions occur in the market then leverage increase the average company cost of capital and eventually affecting the organization market value negatively. Despite this, many firms have conflicting opinions with such cases.

Capital structure and profitability have significant mutual relationship and they give a firm the liberty to grow under any circumstances. Therefore, it is the management's role to see to it that they consolidate their efforts to reach a well-balanced position of combining capital structure and prudent financial resources (Mohammadzadech et al,

2013). That notwithstanding, it is difficult to determine an organization's capital structure when key issues of performance measurement are not addressed. San and Heng (2011) asserted that it is challenging for financial managers to secure optimal capital structure. An organization has to issue various security concerns before setting of a particular mix of capital structure and organizations profit. The optimal capital structure is the minimum weighted average cost of capital which maximizes the value of the firm at all costs (Myers, 2011).

Modigliani and Miller (1958: Miller, 1977) noted that the major goal of any firm is to maximize wealth for their shareholders. However, capital structure and profitability has always been a challenging aspect courtesy of the irrelevance theory. The subject matter is very crucial for any firm since it touches on the very core purpose of business objectives of generating profits. Modigliani and Miller 1958 irrelevance theory states that capital structures have a relationship with the value of an organization. In the wake of corporate tax and cost of capital in MM's (1963), they established that firm's market value has a positive relationship with the long-term debt utilized in its structure of capital (Tudose, 2012).

### **1.1.2 Islamic Banks in Kenya**

Kenya as a nation has fourth three (43) licensed commercial banks. There are three (the Gulf of African Bank, First Community Bank and Dubai Islamic Bank)fully fledged Islamic Banks in Kenya. According to the Central Bank of Kenya, the conventional commercial banks have set up Islamic widows that encourage Islamic products and services in their business items. Islamic Bank itself refers to a system of banking that

follows the Islamic teachings and Shariah (Law) and is also driven by Islamic economies in its functionality.

Islamic Laws restricts the payment and collection of interest to its clients and lenders. The main reason that interest is prohibited is that money according to Islam is not utilized as a product with which profit should be generated but it should be obtained from the sale of products and services only regardless of any circumstances. Features of Islamic Banking are grounded on ethical considerations of all that are involved. Islamic Shariah allows all economic activities should be geared towards protecting and guarding public interest of all the people. The main conditions governing Islamic Investment involves the following:-Investment is subject to the rule of sharing profit and sharing losses, investment in an enterprise is lawful and conformity to Shariah (Islamic law), but prohibitions should not be allowed, contracts must be free of 'gharar' (uncertainty, ignorance and the conditions that lead to conflicts, money does not generate interest, instead it becomes productive if it is involving a task or work.

Islamic Banking is considered to be highly profitable regardless of its policies that are Shariah compliant. It has a better default experience compared to other conventional commercial banks. Islamic Banks has a strong financial base given the nature of its operations. In 2012, the Islamic Banks had a total of US\$ 1.54 Trillion in terms of Shariah compliant asset (Cook, 2006).Campbell (2010) noted that emergency of global financial crisis in 2008 Islamic banks were considered as a better alternative since they were fairing on well compared to the conventional banks that had left a vacuum at that time.

## **1.2 Research Problem**

Capital structure establishes different parameters that an organization finances its activities either through debtor equity or a mixture of both the arrangements (Brigham, 2004). Most banks consider employing debt financing in the form of customer deposits in order for them to maximize on shareholders wealth creation by issuing more assets backed by the liabilities and this meet profit maximization objective. Many organizations prefer to utilize debt financing in the capital structure plans in order to increase their levels of performance. The principle of experiencing high risk shows that with a high adoption of debt financing reduces the levels of organization performance in the long-run.

Capital structure decision is considered as significant as it aids firms in managing their investment opportunities. Therefore, there is need to consider capital structure with a keen interests since it determines the long-term growth of an organization. In a statement of affairs of any firm, the general position of it with regard to every liability and asset is well taken care off (Velnampy & Nivesh, 2012). According to Pandey (2009), the term capital structure of an enterprise includes a mixture of short-term debt, long-term debts, preference shares and equity shares. This goes a long way to safeguard growth of such an enterprise.

All Islamic banks are Shariah compliance and considered as very stable financial institutions than conventional banks. Simply put it speculation is not allowed completely and changing of interest rates is also outlawed as well and therefore Islamic banks only make profits based on profit-sharing model by all stakeholders. That notwithstanding



there is so many determining factors that have aided in the growth of Islamic banking. According to an international monetary fund report (2009), the report was conducted to investigate the determinants of the patterns of Islamic bank diffusion around the world using secondary data for 1992-2006. It was established that there was a huge capital from the oil producing countries and the high oil prices that helped in the development and growth of the Islamic banks especially in the Muslim nations.

Other studies done on Islamic banking by previous researchers indicated different findings based on cases being investigated. There has been a consistent initiative adopted by Islamic International Institutions such as IDB and its subsidiary, Islamic Research and Training Institute that were found in 1981. The World Bank and the International Monetary Fund (IMF) among others conducted studies on Islamic banking as pioneers in that field (Khan 1987, Khan & Mirakhor, 1990). Other studies were done by individuals in different jurisdictions. Chapra (1985) carried out a study on governance on Islamic Financial Governance on Islamic financial institutions. He noted that the element of Shariah compliance a big influence on how governance is handled in Islamic bank compared with other conventional banks across the board. He discussed Islamic corporate governance structure that was enshrined with shareholders. This was a big contrast to conventional banks that considered a different model in corporate governance in their operations.

Chiang Yat Hag, Chan Ping Chuen Albert and HuiChimanEdelie (2002) asserted that high gearing has a positive relationship with asset consolidation while the same has a negative relationship with profitability of firms in Hong-Kong. Kyereboah (2007) noted

that a high debt level has positive relationship with organizational performance of micro-finance firms in Sub-Saharan Africa as a whole.

Locally, Kiogora (2000) noted that a positive relationship between capital structure and the value of firm on different occasions exists. Thitman & Wessels (1998) established that organizations with high profit margins, have equally maintained relatively lower debt levels given that they easily raise funds from retained earnings with the organization itself. Mukunyi (2001) conducted a study on the relationship between working capital investment policy and profit margin of manufacturing organizations in Kenya. The findings of his study showed that there was no relationship between the two variables that is capital investment policy and profit margin. Caffaso, (2011) also carried out a study to establish the existence of a relationship between working capital management, financing policy and profitability among manufacturing entities in Kenya. The findings of the study therefore revealed that there was a negative relationship between working capital policy and profitability among such entities.

Mose (2011) conducted a study to investigate relationship between capital structure and financial performance of institutions in Kenya. The study findings according to his study established that outreach and size of the portfolio of a firm had a positive influence on financial performance of microfinance institutions in Kenya. On other hand, Kweri (2011) conducted a study to find out the influence of working capital management and profitability of manufacturing organizations listed at the National Securities Exchange. The findings of his study indicated that working capital management had an effective influence on profitability of a firm such that when the same is enhanced through prudent management of working capital it can lead to increase in profit margin in the long-run.

Given the findings by other researchers, their findings were only limited to specific context such as manufacturing organizations and other conventional banks. The studies however did not give conclusive findings on other firms such as Islamic banks in Kenya. The studies did not explore the specific influence of capital structure on the profitability of fully fledged Islamic banks in Kenya; thus leaving out a knowledge gap that is to be filled by this study.

To justify the need for this study, the conventional banking systems in Kenya normally adopts a way of charging interest rates on its loan products and this guarantees them the higher levels of returns to investment at the end of financial year keeping other factors constant. While on the other hand, the Islamic Banks that are established under the Shariah Laws have financial systems that do not charge interest on their loan products and also they do not consider collateral issues but only charge administrative costs and yet they still make profits in the long-run. In other jurisdictions, the profitability of Islamic banks is positively influenced by high level of capital and financing deals to total asset ratios and controlling macroeconomic factors. This study therefore seeks to find out if capital structure arrangement has any effects on the profitability of full fledge Islamic banks in Kenya. This study sought to answer the following questions; what is the effect of financial leverage on profitability of fully fledged Islamic banks in Kenya? What is the effect of debts ratio on profitability of fully fledged Islamic banks in Kenya? What is the effect of capital adequacy on profitability of fully fledged Islamic banks in Kenya? What is the effect of customer deposit leverage on profitability of fully fledged Islamic banks in Kenya? What is the effect of retained earning leverage on profitability of fully

fledged Islamic banks in Kenya? And what is the effect of size on profitability of fully fledged Islamic banks in Kenya?

### **1.3 Research Objectives**

The general objective was to determine the effects of capital structure on the profitability of fully fledged Islamic banks in Kenya, while the specific objectives involve the determination of the following:

- i) The effect of financial leverage on profitability of fully fledged Islamic banks in Kenya.
- ii) The effect of debts ratio on profitability of fully fledged Islamic banks in Kenya
- iii) The effect of capital adequacy on profitability of fully fledged Islamic banks in Kenya
- iv) The effect of customer deposit leverage on profitability of fully fledged Islamic banks in Kenya
- v) The effect of retained earning leverage on profitability of fully fledged Islamic banks in Kenya
- vi) The effect of size on profitability of fully fledged Islamic banks in Kenya

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

This research would add value to the field of corporate financial policy in general such that the findings of this project would be utilized as a point of reference and knowledge in policy framework among the corporate organizations in the financial sector. Islamic banking is established on high moral grounds that are Sharia compliant, therefore the ethical aspects of business and finance goes beyond the Islamic world to offer a re-

examination of the core values that are to be adopted by different personalities in the banking industry. Therefore, a deep comprehension on matters of Islamic banking issues in Kenya would help to attract potential investors from the cash rich-Islamic investors from the Gulf and South-East Asia that believe in Islamic banking to invest in Kenya. This would help in building the Islamic banking financial sector and in the long-run boosting the Kenyan economy. To the world of academia, this study would play a significant role in the sense that its findings would be employed by different future researchers as reference material in building up their studies; thus adding more value by providing fresh information on relevant theories about capital structure and profitability in fully fledged Islamic banks in Kenya.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

Chapter two presents literature review to help identify what other earlier scholars have studied so as to inform the undertaking of the current study. It identifies the various theories on which the study anchors on, determinants of financial performance, empirical literature, conceptual framework and summary of the literature reviewed.

### **2.2 Theoretical Review**

#### **2.2.1 Capital Structure Irrelevance Theory**

Modigliani and Miller (1958) established “Capital Irrelevance Theory” by determining the influence of capital structure on an organizations value and they had a reason to consider capital structure as a whole. They proposed that given a perfect market situation, a firm’s value is considered not to be influenced by the capital structure framework at that time. As such, capital structure of an organization is not influenced by selling debt or issuing stocks and cost of capital is retained as a constant.

The emergence of modern capital structure theory by Modigliani and Miller (1958) classical presentation led to the establishment of other more empirical and theoretical presentations on the subject matter. These presentations were more scientific inform of papers that were conducted to investigate capital structure of specific listed firms in the stock market. The major findings of these investigations were that given the restricted assumptions on the same, the firm’s value is considered not to be related to its capital structure. The assumptions excluded taxes, transactions, equality of lending and

borrowing rates, the independence of the functions in the organization as well as bankruptcy costs.

Furthermore, the classical findings of Modigliani and Miller (1958) held the value of an organization is independent from its capital structure as established. The empirical and theoretical investigations have been expanded to involve other factors that include agency costs, information asymmetry issues, bankruptcy, costs as well as taxes. The theory noted that there is no influence of capital structure on an organization's profitability and its general performance. This then gives a contradiction of the presumption of this study that is the existence of an influence of capital structure on the profitability of full fledged Islamic banks in Kenya.

### **2.2.2 Agency Theory**

Banks just like any other business firms are managed by agents in the name of management appointed by board, as has been perfectly presented by the Agency theory credited to its development to Ross (1973) and Mitnick (1976). The economic aspects of the theory is by Mitnick and Ross whereas the theory's institutional aspects (Jensen and Meckling, 1976). Focus the study was on the compensation of agents (Ross 1973) and (Mitnick 1976) presented company aspect of the theory. It was supported that the agents will not only work for the master without due consideration (Fama and Jensen, 1983). This theory is relevant for capital structure of banks since it affirms then notion agents have influence of management of a banks capital structure even when there is optimal ceiling and floor a board may set the agents can make considerable move in the level of capital structure that can affect bank's profitability.

### **2.2.3 Pecking Order Theory**

The theory of pecking order concludes that that firm should use experimental data that they consider to be a different preference for using capital in place of external savings. Where the starting contribution is not enough to start the business, firms has the option of borrowing from elsewhere as long as the borrowing will not alter with the asymmetric. The final charges mostly replicate the “lemon premium” (Akerlof, 1970) that external financiers enquire for the dangers of disappointment for the usual company in that business environment. The resulting pecking mandate for funding include: inside contributed capital mainly, followed by individually low-risk liability funds and bit funding. According to Myers and Majluf model (1984), external financiers rationally discount firm’s standard price as and when administrators give equity rather than of riskless liability. To keep away from the reduction, the administrators will try to keep off from equity at all cost. The Myers and Majluf ideal expects that administrators will survey a pecking order, the first model of funding, follow by risky debt application, and lastly resorting to equity. In case there is no business prospects, companies will recall earnings and come up with financial opportunities to discourage commercial floppy that discourage future loop holes for money. The pecking order theory encourages the market to utilize the market-to-book ratio as an indicator for business chances. With this explanation in thoughts, both Myers (1984) and Fama and French (2000) note that a concurrent association amongst market to book ratio as well as capital structure is hard to resolve with the fixed pecking order ideal. Iteration of static version also advocates that phases of great ventures occasions will incline to raise the debt capacity. To the degree



which high older market-to-book really overlaps with high previous investment, though the researchers' shows that the two models strive to lower leverage.

#### **2.2.4 The Market Timing Theory**

The theory of market timing concludes that companies time their equity before they give fresh stock at the time when the prices are perceived to be overrated, and buy the shares again when the prices drop. Accordingly, the changes in prices impact much on company's capital arrangement. According to previous researchers, there two types of equity markets that result in capital structure of the company. The first presumes financial agents to be balanced. Firms are presumed to distribute equity directly once desirable results about the market are announced.

Baker and Wurgler, (2002) presumes the financial agents to be irrational, as a result of this behavior there is time-varying mispricing stocks of the firm. Administrators issue equity at the time prices are assumes to be irrationally low and sell when it is the reverse. Imperative to note is that, the second type of market timing requires an inefficient market type. The statement suggest that administrators is assumes that they are good in timing the market. Base on Graham and Harvey (2001), held that the administrators perceive that issuing stocks reports "the amount by which our stock is undervalued or over-valued" was a significant concern.

## **2.3 Determinants of Profitability of Islamic Banks**

### **2.3.1 Financial Leverage**

It refers to the use of fixed income securities for example debt instruments and preference shares. An increased in use of debts increases financial leverage of the company. Use of debts is adventitious to a company since it provides an interest tax shield that enhances the wealth of shareholders. However, too many debts in capital structure increases risks of bankruptcy (Rehman, 2013).

### **2.3.2 Capital Adequacy**

Capital adequacy measures capital of an Islamic bank. Commercial banks express their capital adequacy as percentages of their weighted risk exposures. Capital adequacy plays a significant role in protecting deposits of customers while at the same time promoting growth and stability of the entire banking sector (Jarrow, 2013).

### **2.3.3 Retained Earnings Leverage**

Retained earnings are earnings that are not given to shareholders as dividends, but kept for investment. In case of low retained earnings cost, the company will pay less and retain more dividend. Additionally, it is preferably kept for the same since it does not get artificial by floatation expenses and does not dilute ownership and control of the firm, since no new shares are issue. An assumption is made that retained earnings form significant sources for long term capital as it is cheap and readily available. The company does not incur costs of placing and advertising for new shares (Ilhomovich, 2009)

### **2.3.4 Firm Size**

Islamic banks can be categorized into small, medium or large based on some indicators like asset base and the number of employees. Several studies have argued that large size is associated with economies of scale that enhances operations and therefore profitability (Pais& Stork, 2013).

### **2.3.5 Debt Equity (DE) Ratio**

Under any circumstance money that is payable to a firm is referred to Liability. A company accumulates liability when it borrows capital while a government entity accrues liability when it takes bonds. It is partial to price of security and income condition in any state. It is ideal for firms where gearing permit them to increase liabilities level, (Kinsman and Newman, 1998).

### **2.3.6 Measures of Organizational Profitability**

The main objective of every business is to amazed revenue that contributes to its wealth. This therefore means, all the approaches and strategies employed by Islamic banks are for the realization of a desirable profit. Nonetheless, this does not rule out that Islamic Bank has no other objectives and targets. Islamic banks may as well have other economics and social contextualized objectives. Nonetheless, the study focused on the ultimate goal of all businesses, profitability. Measuring profitability of Islamic banks, entails varieties of financial ratios such as Return on Asset (ROA), and Return on Equity (ROE) are the main ones (Murthy and Sree, 2003; Alexandru et al., 2008).

### **2.3.6.1 Return on Assets**

One main ratio used to measure profitability of Islamic banks is the return on assets (ROA). The ROA calculates an Islamic bank's ability to generate revenue by economically making use of its resources that is its assets. The ROA also indicates management efficiency of a firm's productivity, having entirely utilized assets of the firm (Khrawish, 2011). Wen (2010) mentioned that high ROA indicates that a firm has efficiently used its resources.

### **2.3.6.2 Return on Equity**

Return on equity (ROE) is the other ratio that shows how the firm generates dividends to its shareholders. The ROE is what the shareholders are concerned about since it impacts on their savings. It is evidence from researchers that a company that has a high ROE is capable of generating a high profit margin. This therefore, means, the higher the ROE, the better the firm's profit earning, Khrawish (2011); ROE is the ratio of Net Profit after taxes deducted divided by Total shareholders equity.

## **2.4 Empirical Review**

Following the studies that were conducted by other researchers shows that there is a conflict on the facts there is a correlation amongst capital structure and productivity of firms. The research that was also conducted by Abor (2005) on the impact of capital structure on productivity of firms' listed at Ghana Stock Exchange covering duration of five-years confirmed a relationship exists. Samad and Hassan (1999) gauged the inter-temporal and interbank presentation of Islamic bank Islam Malaysia Berhad (BIMB) for the period 1984-1997 through the employment of relevant performance by using same performance came up with the conclusion that the inter temporal judgment Islamic bank

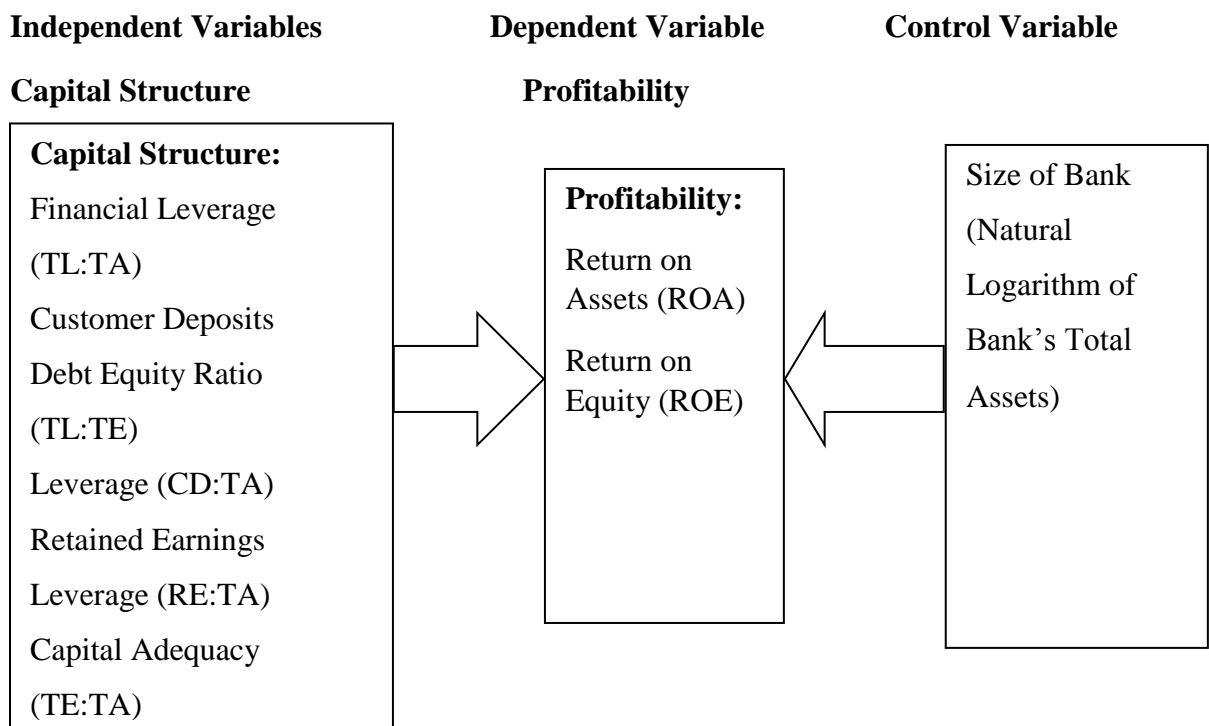
BIMB's made statistically important development on productivity while the BIMB peril grew. In interbank assessment the study concluded that BIMB is fairly more liquid and less risky unlike 8 Conventional banks.

Chiang et al., (2002) during the research conducted, concluded that there is a strong correlation between productivity and capital structure; the research covered 35 companies in scheduled in Hong Kong Stock Exchange. Gill, et al., (2011) pursued to cover Abor's (2005) findings associated with capital structure on effectiveness by analyzing the impacts of capital arrangements on productivity of the American service and manufacturing companies. The experiential results of the research show a positive association concerning short-term debt to total assets as well as efficiency between total liability to total resources and productivity in the service industry. Matibe (2005) used correlation analysis to brings out the correlations between ownership structure and capital arrangement for firms listed at NSE (excluding financial institutions and alternative investment markets segment) for the period 1998- 2002. The study found a negative correlation between distinct, formal and external ownership and capital structure while state ownership was absolutely connected with capital structure. However, theory forecasts optimistic relationship concerning foreign ownership and capital structure

Musili (2005) used vivid statistics to review the investment structure among industrial firms listed at the NSE (which is also members of Kenya Association of Manufacturers) for unspecified period using a sample of fifty firms. The research findings indicate that industrial companies shadowed hierarchy in funding choices than target debt ratios. Also, since funding shows features of resources presentation, studies based on corporate and individual taxes, bankruptcy and leverage linked costs are less significant in finding out

capital structure. The research results indicated that, the planning financial principles are so vital in financing choices. Nevertheless, the study is reliable with pecking order regarding decisions of finances by manufacturing companies. Nyaboga (2008) used regression study to expound on the affiliation involving capital structures for the company's recorded at the NSE for the period 2000 to 2007 by the use of 20 companies as a sample of the study. The research findings indicated that liabilities lower expenses in developed companies but it acts as utilization in developing companies. Nevertheless the research study refutes theoretical forecasts since a weak affiliation amongst capital structure besides support cost was recognized.

## 2.5 Conceptual Framework



**Figure 2.1: Conceptual Framework**

**Source: Author, (2017)**

## **2.6 Summary of Literature Review**

The conceptual literature review has detailed considerations of different theories that included capital structure irrelevance theory, agency theory, pecking order theory and market timing theory all explain the capital structure and its influence on a firm's profitability and consequently a number of theories can be used to predict the possible influence of capital structure on profitability of fully fledged Islamic Banks in Kenya. The empirical studies segment have cited different studies done by other researchers both locally and internationally related to this study and as such giving different outcomes and explanations depending on specific cases.

The above mentioned theoretical and empirical studies were the basis to further expand on in the areas of capital structure effects on profitability of companies. It was found that capital structure negatively impacts on firm profitability that is the total liability and short term liabilities on return on equity (Salim&Yadav, 2012). Ebaid (2009) results were also the same, company profitability measured by return on assets have resulted in capital structure negatively impacts and were supported by studies Abor (2007), Zeitun&Tian (2007) and Rajan&Zingales (1995). However, there are other studies that identified relationship of positive nature between capital structure and firm's profitability such as Frank &Gayol, (2003), Hadlock& James (2002), Champion (1999), Ghosh, Nag&Sirmans (2000). There are no recent studies on effects of capital structure on Islamic Bank profitability and the old studies have were done in Asia and middle east and not East Africa and Kenya in particular. Locally there are no studies on this topic on Islamic banks, thus the need to identify and research on these gaps

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter focuses on research design, data analysis method and data collection method that were used to carry out the research project.

### **3.2 Research Design**

A research design defines a plan that is systematic for investigating a given research problem. Research design is an interrelated framework established for seeking answers to given research questions (Creswell, 2013). The research was conducted through a census of all fully fledged Islamic banks in Kenya. Best and Kahn (2005) state that descriptive research seeks to description of attributes of variables in a situation and is concerned with conditions or associations that exist, ideas that are held, ongoing processes, effects that are evident or developing trends

### **3.3 Population**

This study's population involved two fully fledged Islamic commercial banks in Kenya which is Gulf African Bank (GAB) and First Community Bank (FCB). Dubai Islamic Bank Kenya Limited (DIBK) was not considered because of its new into Kenyan Market -July 2017. This study employed a census survey due to the small number of the subject of analysis.

### **3.4 Data Collection**

This study was based on secondary data obtained from the banks' quarterly published financial statements of the two full-fledged Islamic banks in Kenya and/or Central Bank



of Kenya (CBK) for eight years from January 2009 to December 2016. The coverage period was eight years in quarters. The panel data was for sixty-four (64) observations.

### 3.5 Data Analysis

The data was extracted from the quarterly financial statements of GAB and FCB using data extraction excel sheet. These were edited, coded and cleaned. Statistical package for social sciences (SPSS) deployed to analyze the data through appropriate statistical tools, which included descriptive statistics, linear regression model and trend analysis.

In the comparative study, ordinary regression equation was employed to measure, evaluate and observe the effects of capital structure on profitability of fully fledged Islamic banks in Kenya. This study conducted regression analysis by using SPSS software program to estimate the equation. The regression of two banks was meaningful because it showed the relationship between capital structure and its effects on the profitability of full-fledged Islamic banks in Kenya.

#### 3.5.1 Model Specification

$$Y(a,b) = \alpha + \beta_1 FL_1 + \beta_2 DE_2 + \beta_3 CA_3 + \beta_4 CDL_4 + \beta_5 REL_5 + \beta_6 S_6 + \varepsilon$$

Where:

**Y<sub>a</sub>** = Return on Assets

**Y<sub>b</sub>** = Return on Equity

**α** = constant

**β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub>, β<sub>4</sub>, β<sub>5</sub>, β<sub>6</sub>** = regression coefficients

**FL<sub>1</sub>** = Financial Leverage Ratio measured as Total Liabilities to Total Assets(TL:TA)

**DE<sub>2</sub>** = Debt Ratio measured as Total Liabilities to Total Equity(TL:TE)

$CA_3$  = Capital Adequacy Ratio measured as Total Equity to Total Assets(TE:TA)

$CDL_4$  = Customer Deposits Leverage Ratio measured as Customer Deposits to Total Assets(CD:TA)

$REL_5$  = Retained Earnings Leverage Ratio measured as Retained Earnings to Total Assets(RE:TA)

$S_6$  = Size of Bank measured as Natural Logarithm of Bank's Total Assets( NL TA)

$\epsilon$  = Error term

This model was utilized to test whether the independent variables were capable of predicting relationship between capital structure and profitability of full fledged Islamic banks in Kenya.

## **CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS**

### **4.1 Introduction**

This chapter presents an analysis of data collected by researcher. The purpose of the research was to determine effects of capital structure on profitability of fully fledged Islamic banks in Kenya. The researcher collected secondary data on total liabilities, retained earnings, ordinary shares, preference shares, profit / (loss) after tax & exceptional items, total interest income, total interest expense, customer deposit, total shareholders' funds, deposits and balances due from local banking institutions, deposits and balances due from banking institutions abroad and total assets. Collected data was used to generate ratios that acted as independent variables of the study. The obtained means were coded into SPSS software after which the analysis was done using both descriptive and inferential statistics.

### **4.2 Response Rate**

The study targeted two (2) fully fledged commercial banks in Kenya established for Islamic Banking i.e. Gulf of African Bank (GAB) and First Community Bank (FCB). The researcher obtained complete data on an eight year period 2009-2016 from all these two banks and therefore the response rate was 100%. According to Babbie (2004) rates of return greater than 50% are acceptable to analyse and publish, 60% is good and 70% is very good and above 80% is excellent. Therefore, the response rate was good for the study.

### 4.3 Descriptive Statistics

The researcher used means and standard deviations, skewness and kurtosis to describe the effects of capital structure on profitability of full-fledged Islamic banks in Kenya. The findings are indicated in subsequent tables.

#### 4.3.1 Means and Standard Deviations

Means were used to determine central tendency of the data while standard deviations indicated the spread of observations in the data set. The findings are indicated in Table 4.1.

**Table 4.1: Means and Standard Deviations**

<b>Descriptive Statistics</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
ROA	64	-.03	.03	.0038	.01366
ROE	64	-.23	.27	.0322	.09746
Financial Leverage	64	.33	.91	.8580	.07487
Debt ratio	64	2.10	10.29	6.8872	1.86556
Capital Adequacy	64	.09	.26	.1330	.03496
Customer Deposit Leverage	64	.70	.90	.8330	.04511
Retained Earnings Leverage	64	-.11	.07	-.0235	.04455
Size	64	12.53	17.12	16.0223	.97506

From the findings, ROA had a minimum value of -0.03, maximum of 0.03, mean of 0.0038 and standard deviation of 0.01366. ROE had a minimum of -0.23, maximum of 0.27, mean of 0.0322 and standard deviation of 0.09746. Financial Leverage had a minimum value of 0.33, maximum of 0.91, mean of 0.8580 and standard deviation of 0.07487. Debt ratio had a minimum of 2.10, maximum of 10.29, mean of 6.8872 and standard deviation of 1.86556. Capital Adequacy had a minimum value of 0.09; maximum value was 0.26, mean of 0.1330 and standard deviation of 0.03496. Customer

Deposit leverage had a minimum value of 0.70, maximum value of 0.90 mean of 0.8330 and standard deviation of 0.04511. Retained Earnings leverage had a minimum value of -0.11, maximum of 0.07, mean of -0.0235 and standard deviation of 0.04455. Size as a control variable indicated a minimum value of 12.53 with maximum value of 17.12, mean was 16.0223 with standard deviation of 0.97506.

The findings about means and standard deviation indicate that size was the most centered observations of all the variables while debt ratio was widely spread across the entire observations of the data set.

#### 4.3.2 Skewness and Kurtosis

The researcher further used Skewness and Kurtosis to test Normality of the data set. The findings are indicated in Table 4.2.

**Table 4.2: Skewness and Kurtosis**

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
ROA	64	-.780	.299	.496	.590
ROE	64	-.683	.299	.879	.590
Financial Leverage	64	-5.644	.299	38.779	.590
Debt ratio	64	-.403	.299	-.688	.590
Capital Adequacy	64	1.090	.299	1.268	.590
Customer Deposit Leverage	64	-.701	.299	-.060	.590
Retained Earnings Leverage	64	-.069	.299	-.746	.590
Size	64	-2.242	.299	5.533	.590

ROA had skewness of -0.780 and Kurtosis of 0.590. For ROE Skewness was -0.683 and Kurtosis of 0.879. Financial Leverage had Skewness of -5.644 and Kurtosis of 38.779. Debt ratio indicated skewness of -0.403 and Kurtosis of -0.688. Capital Adequacy had Skewness of 1.090 and Kurtosis of 1.268. Customer deposit leverage showed Skewness of

-0.701 and Kurtosis of -0.060. Retained Earnings Leverage had Skewness of -0.069 and Kurtosis of -0.746. Size had Skewness of -2.242 and Kurtosis of 5.533. The above findings suggest that the dataset statically deviated towards normal distribution as most of Kurtosis and Skewness lie between -2 and +2 ( Kothari, 2004).

### **4.3.3 Graphical Illustration of Study Variables per Bank**

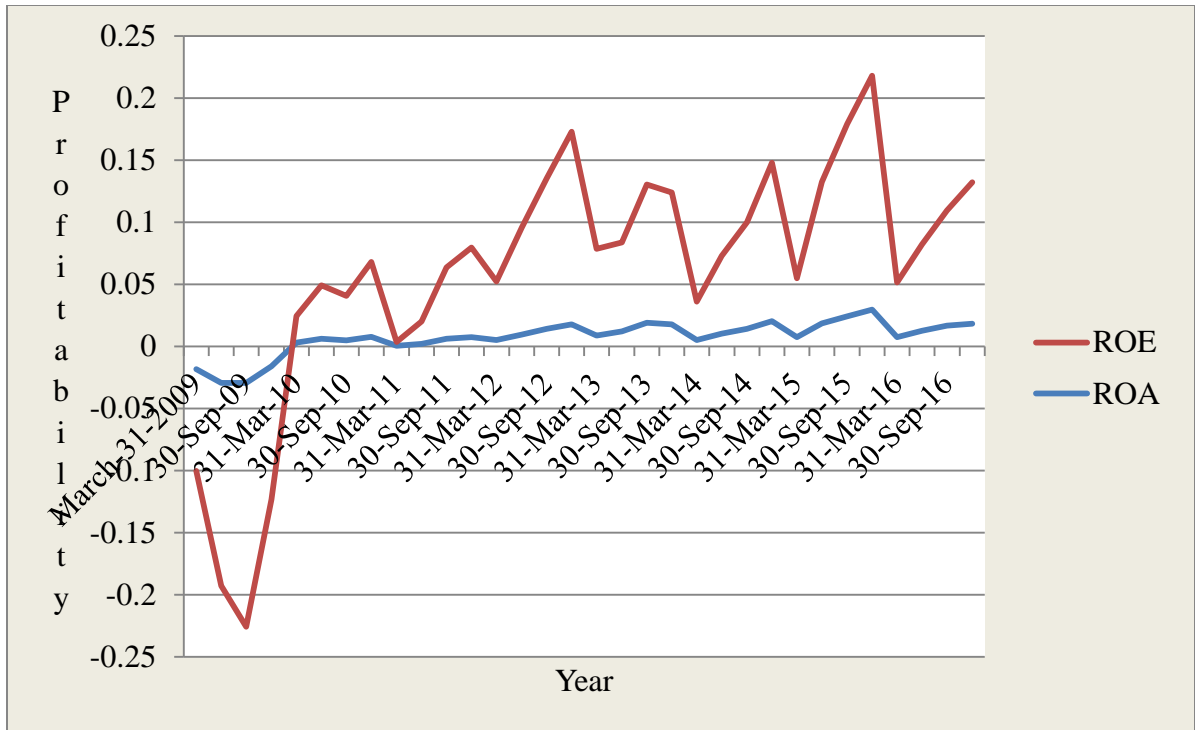
The researcher sought to establish the trend in movement and interrelationship between the study variables on each of the studied banks. The banks studied were Gulf African Bank GAB and the First Community Bank FCB. The independent variables of the study were financial leverage, debt ratio, capital adequacy, customer deposit leverage, retained earnings leverage while size acted as a control variable. The findings are indicated in subsequent sections.

#### **Gulf African Bank GAB**

The trend in movement between the variables for GAB is indicated in this section.

#### **Profitability**

This was measured by ROA and ROE as indicated in Figure 4.1 and 4.2.

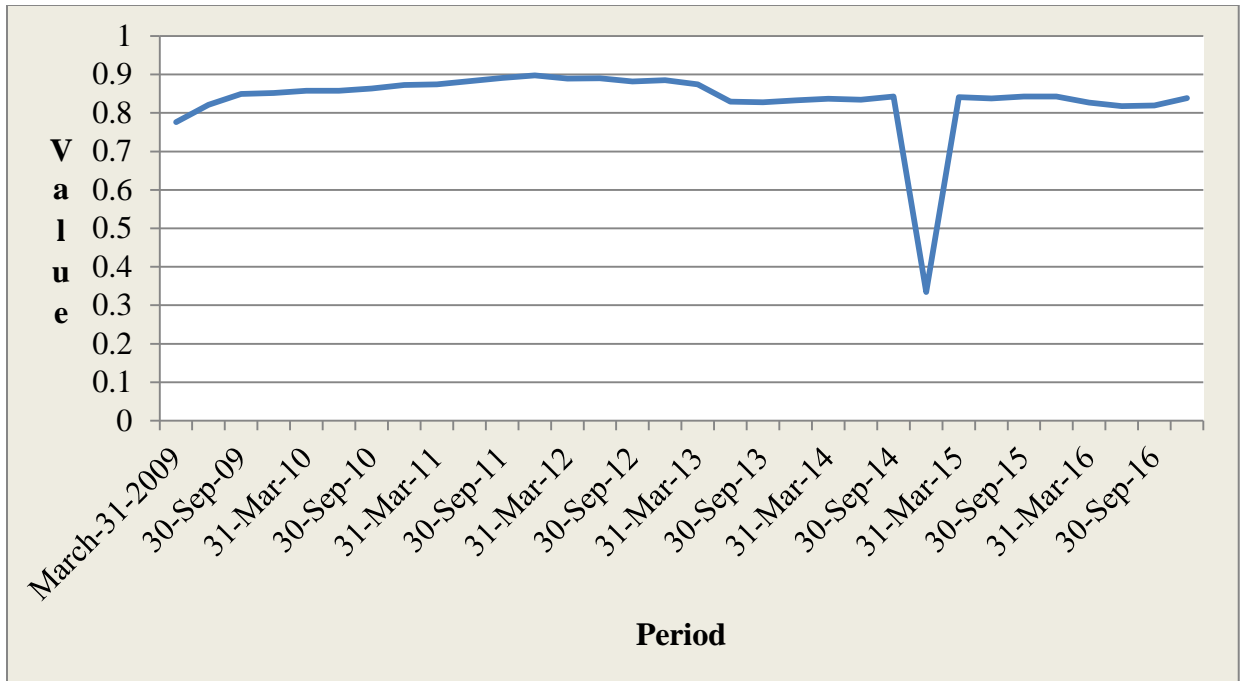


**Figure 4.1: Gulf African Bank GAB Profitability**

From the findings, ROA was stable over the period of consideration. ROE on the other hand was erratic over the period of consideration. Erratic trend in ROE is due to fluctuations in business activities and challenging operating environments that reduces net income of banks and therefore during some times of the year. Around November 2015 witnessed a significant rise in ROE due to stable economic environment.

### **Financial Leverage**

Figure 4.2 graphically depicts the movement of financial leverage across the studied period.



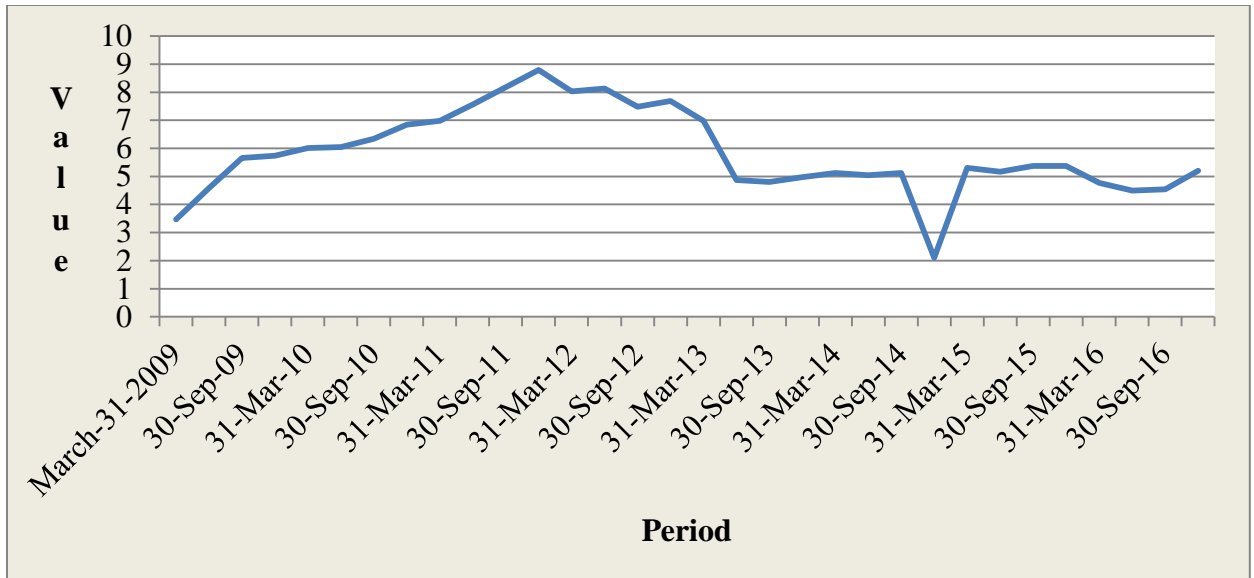
**Figure 4. 2: Financial Leverage**

From the findings, financial leverage generally moved on an increasing trend except nearly at the start of 2015 when there was a significant drop. An increasing trend of the financial leverage indicates that GAB relied on financial leverage to enhance its capital structure.

**Debt Ratio**

Figure 4.3 depicts the movement of Debt ratio for GAB over an 8 year study period.



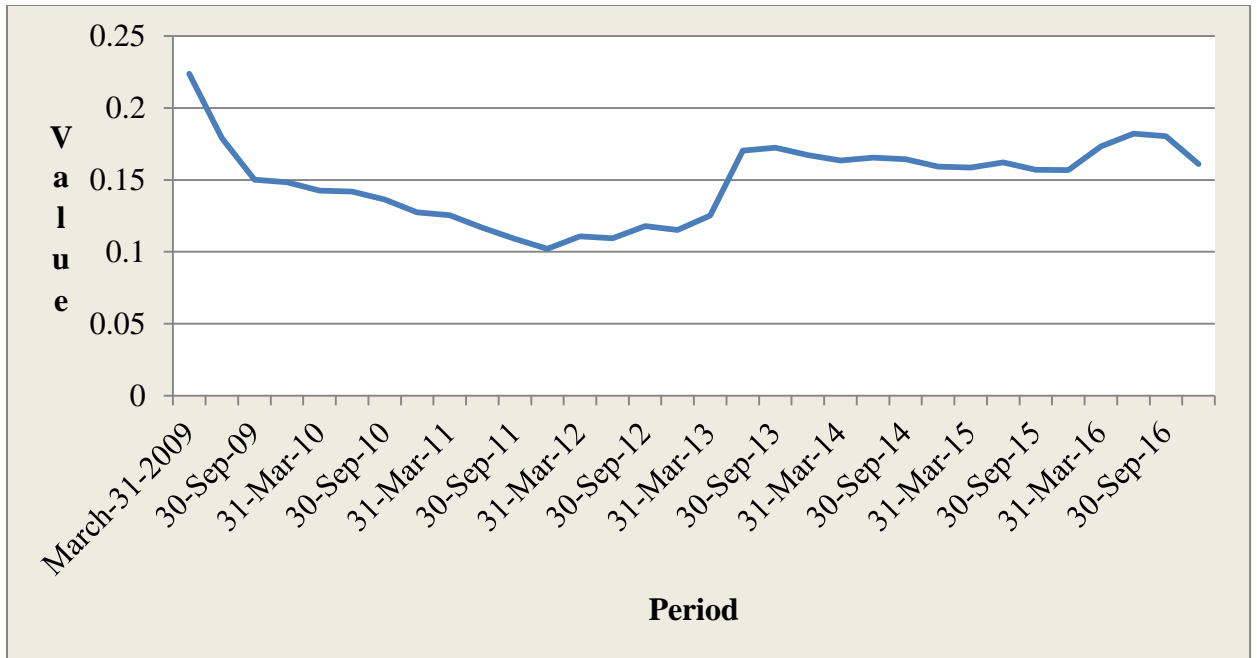


**Figure 4. 3: Debt Ratio**

Generally, debt ratio for GAB moved with an increasing trend over the studied period. The trend however was unstable and unsteady across the studied period. During periods when debt ration was high, the bank enhanced its capital structure.

### **Capital Adequacy**

The graphical representation in movement of capital adequacy for GAB is indicated in Figure 4.4.

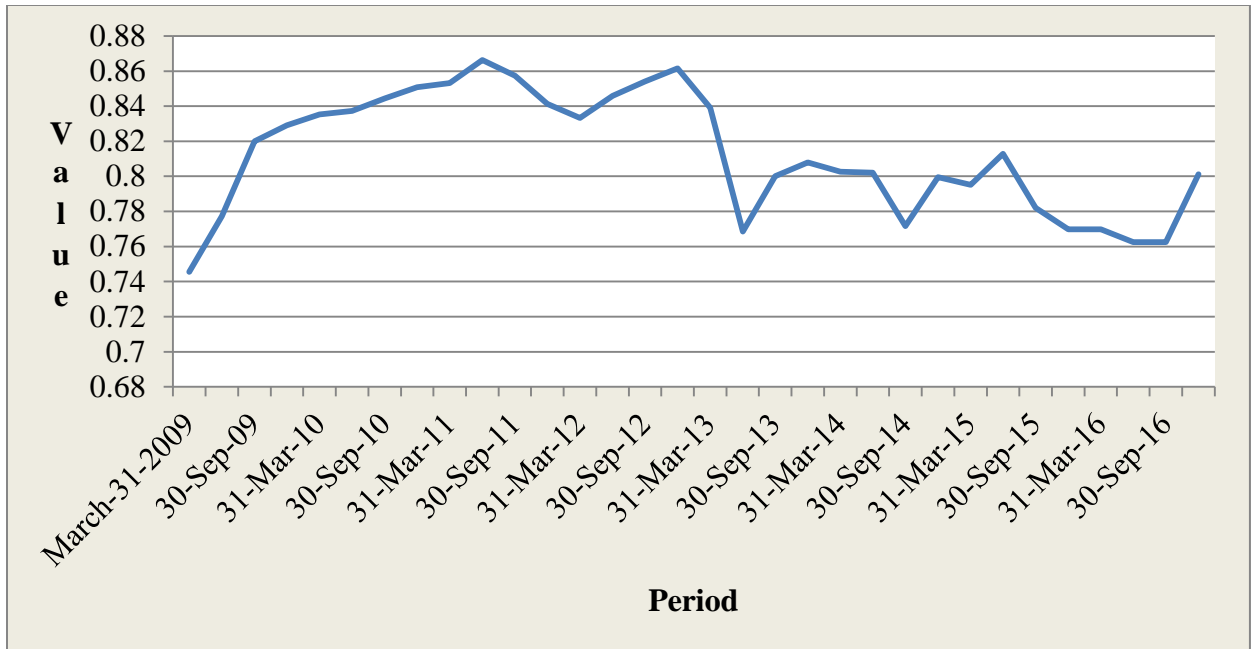


**Figure 4. 4: Capital Adequacy**

From the findings, capital adequacy moved with an unstable trend across the studied period. It rose and dropped across the studied period which can be attributed to changes in regulatory environment by the Central Bank of Kenya CBK.

#### **Customer Deposit Leverage**

The findings on customer deposit leverage across the studied period are shown in Figure 4.5.

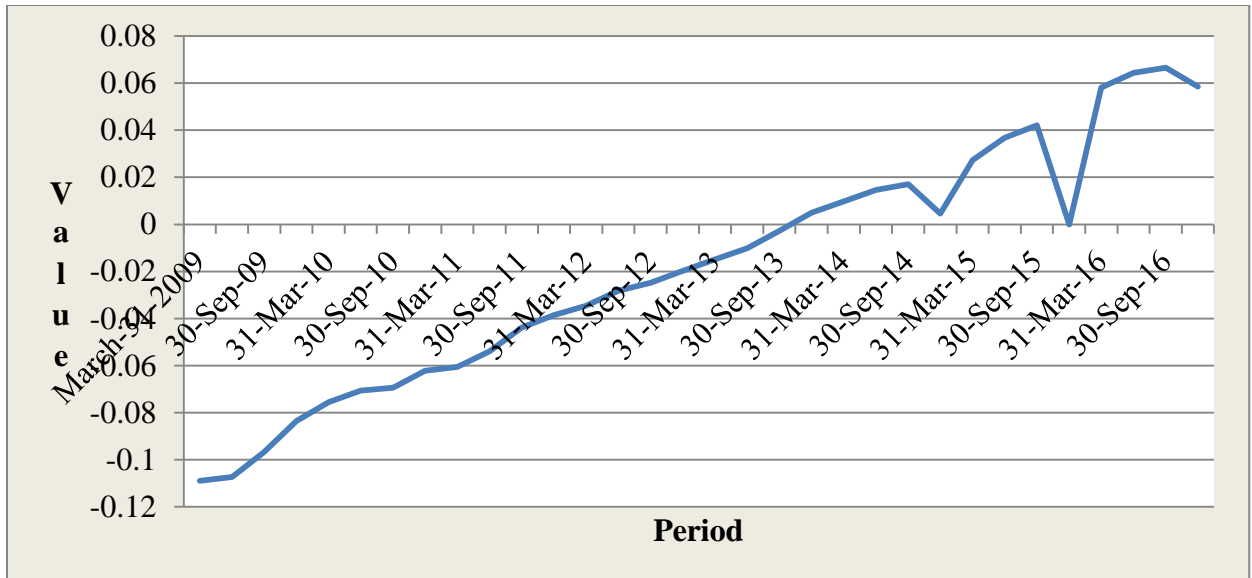


**Figure 4. 5: Customer Deposit Leverage**

From the findings, customer deposit leverage was unstable across the studied period. The movement was not steady across the studied period. This shows that measures put in place to grow deposits have not realized much in terms of growth of deposits of the bank.

**Retained Earnings Leverage**

Figure 4.6 indicate the retained earnings leverage for GAB over the 8 years period of the study.

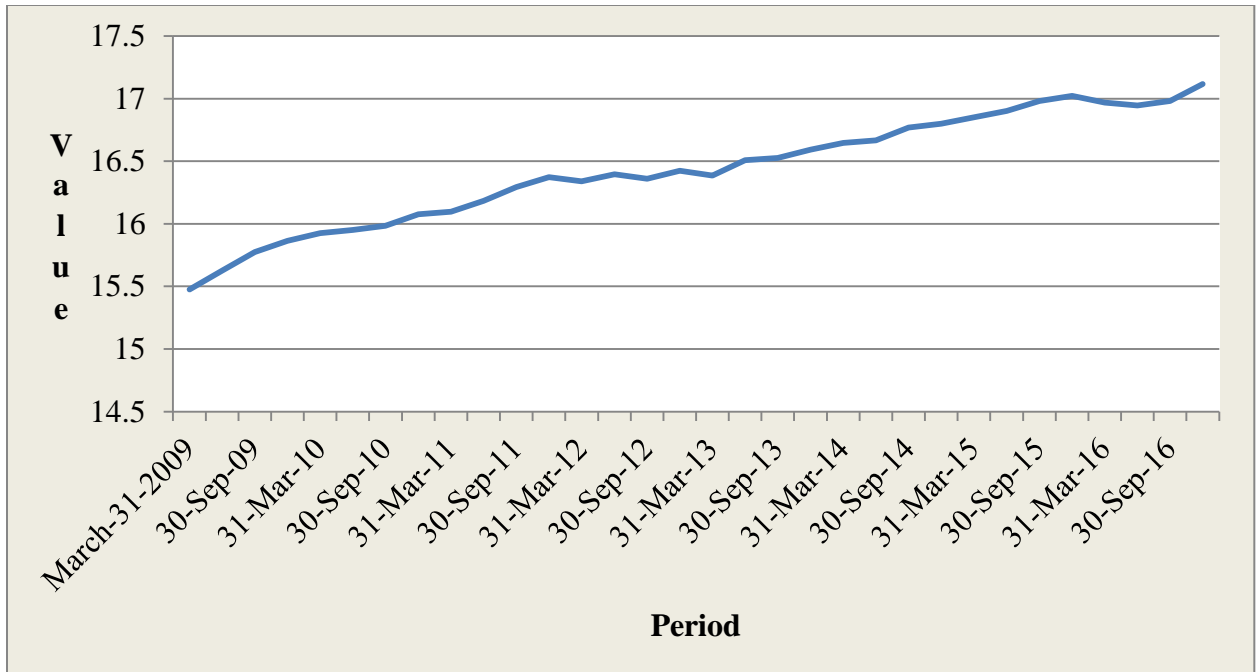


**Figure 4. 6: Retained Earnings Leverage**

From the findings, retained earnings leverage moved with an increasing trend over the studied period. The growth was stable over the period of consideration. This indicates that GAB had a significant appetite for retained earnings in its capital structure which maximized the wealth of shareholders.

**Size**

The findings about the size of GAB are indicated in Figure 4.7.



**Figure 4.7: Size**

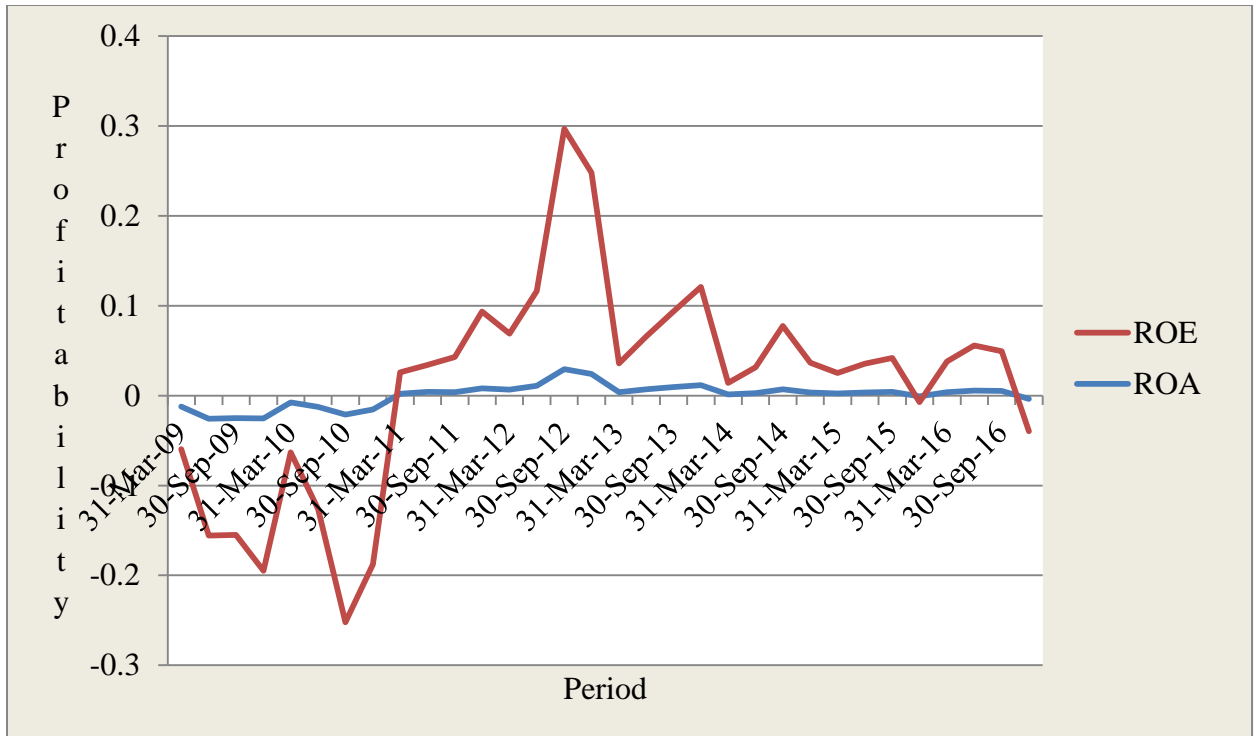
From the findings, size of GAB moved with an increasing trend. The movement was stable and steady across the studied period. This indicates that adequate measures had been put in place to enhance size of GAB.

**First Community Bank FCB**

The researcher the independent and the dependent variables used for FCB.

**Profitability**

ROA and ROA for FCB are shown in Figure 4.8.

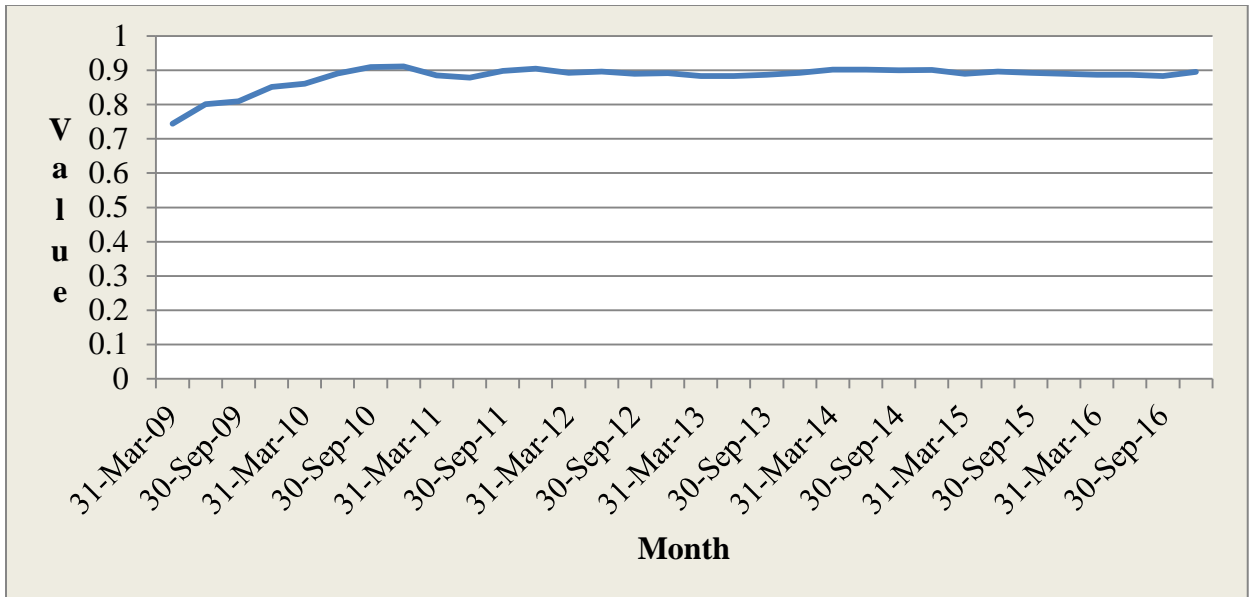


**Figure 4. 8: First Community Bank FCB Profitability**

From the findings, ROA of FCB was stable as compared to ROE which was erratic under the period of review. There was a significant surge in the ROE and ROA around July 2012. This could perhaps be explained by the effects of election where people rush to save or rather insure their wealth and thus a rise in deposits which affects profitability of the bank.

**Financial Leverage**

The finding on financial leverage for FCB is shown in Figure 4.9.

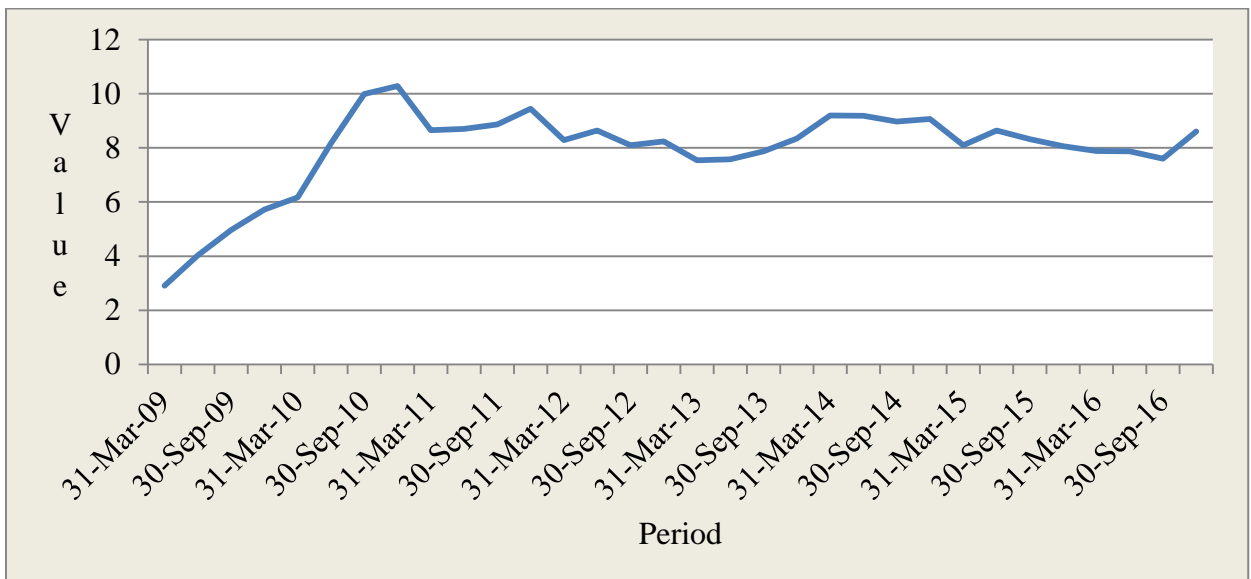


**Figure 4. 9: Financial Leverage**

From the findings, financial leverage for FCB was stable under the period of consideration. This indicates that FCB capitalized on financial leverage to enhance its capital structure and therefore operational efficiencies.

**Debt Ratio**

Figure 4.10 illustrates the trend in movement of debt ratio for FCB.

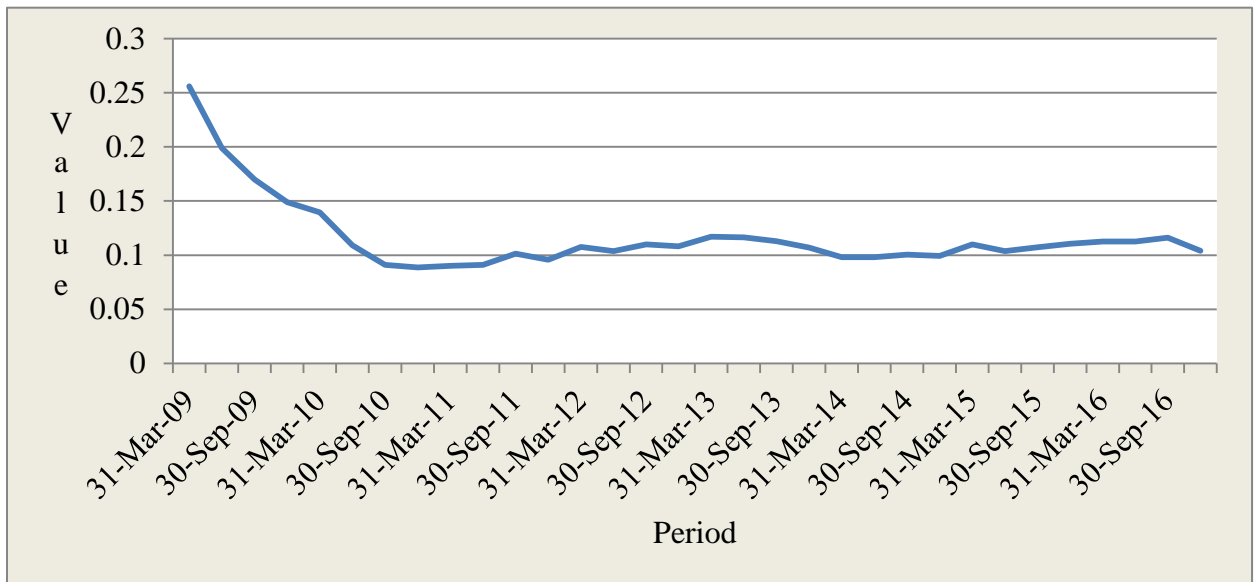


**Figure 4. 10: Debt Ratio**

The debt ratio for FCB generally moved on an increasing manner and was stable across the studied period. This shows that adequate measures had been in place to ensure appropriate debts levels in the capital structure of FCB.

### Capital Adequacy

The findings on Capital adequacy are indicated in Figure 4.11.



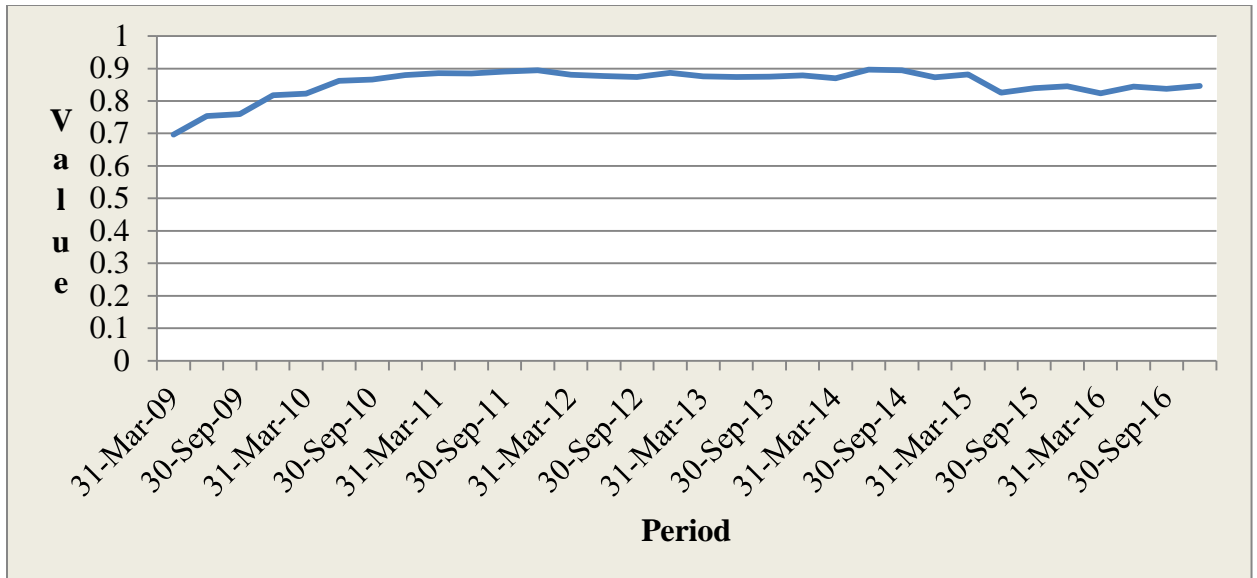
**Figure 4.11: Capital Adequacy**

The findings indicate the capital adequacy at first moved on a decreasing trend from 2009 to around 2011 before stabilizing.

### Customer Deposit Leverage

Figure 4.12 graphically illustrates the trend in movement of capital adequacy leverage over a period of consideration.



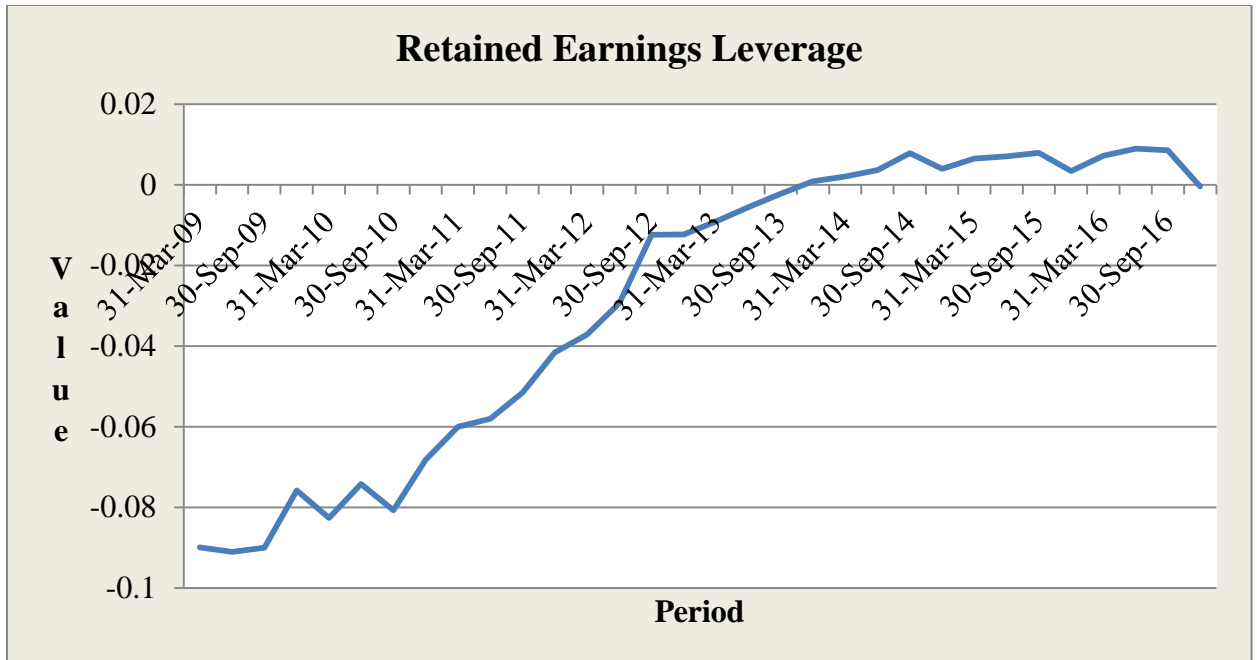


**Figure 4. 12: Customer Deposit Leverage**

From the findings, customer deposit leverage generally moved with an increasing trend over the period of consideration. This indicates that FCB had put in place adequate measures to grow the volume of deposits from customers and therefore enhancing capital structure.

**Retained Earnings Leverage**

The finding of retained earning leverage for FCB under the period of consideration is reported in Figure 4.13.

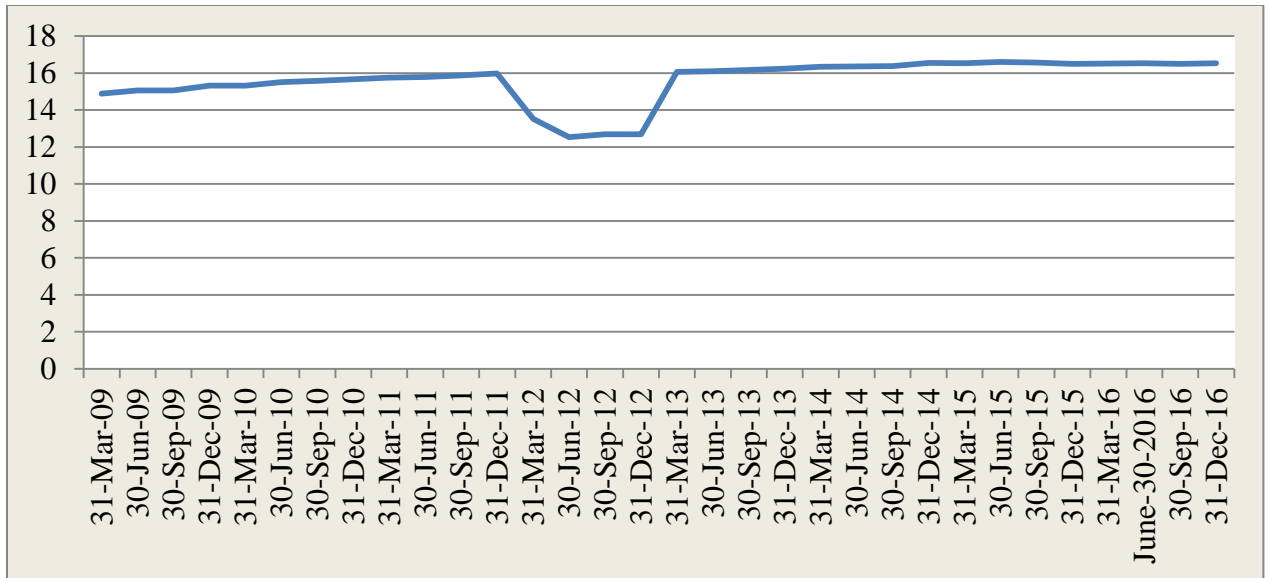


**Figure 4. 13: Retained Earnings Leverage**

The findings indicate that retained earnings leverage generally moved with an increasing trend over the studied period. Generally, there was steady rise in retained earnings leverage for the 8years period the study was undertaken.

**Size**

The graphical representation of size for FCB over the 8 year study period is shown in Figure 4.14.



**Figure 4. 14: Size**

From the findings, size generally moved with an increasing trend across the studied period except in the year 2012 when there was significant drop. This could be attributed to changes in the regulatory environment by the Central Bank of Kenya. It could also be explained by political environment due to elections held during that period.

#### **4.4 Correlation Analysis**

In order to establish relation and strength of relationship between the study variables, the researcher carried out correlation analysis. Pearson correlation coefficient was used to test for strength of the relationship between the variables while p values indicated significance of this relationship at 5%.

##### **4.4.1 ROA as a Measure of Profitability**

The researcher measured profitability of full-fledged Islamic banks in Kenya using Return on Assets. The findings of the correlation analysis are shown in Table 4.3.

**Table 4. 3: ROA as a Measure of Profitability**

		ROA	Financial Leverage	Debt ratio	Capital Adequacy	Customer Deposit Leverage	Retained Earnings Leverage	Size
ROA	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	64	64					
Financial Leverage	Pearson Correlation	-.053	1					
	Sig. (2-tailed)	.678						
	N	64	64					
Debt ratio	Pearson Correlation	.026	.707**	1				
	Sig. (2-tailed)	.837	.000					
	N	64	64	64				
Capital Adequacy	Pearson Correlation	-.141	-.537	-.941	1			
	Sig. (2-tailed)	.266	.000	.000				
	N	64	64	64	64			
Customer Deposit Leverage	Pearson Correlation	.135	.503**	.875**	-.925	1		
	Sig. (2-tailed)	.286	.000	.000	.000			
	N	64	64	64	64	64		
Retained Earnings Leverage	Pearson Correlation	.715	-.033	-.032	-.038	-.051	1	
	Sig. (2-tailed)	.000	.796	.803	.763	.691		
	N	64	64	64	64	64	64	
Size	Pearson Correlation	.167	-.132	-.190	.117	-.239	.464	1
	Sig. (2-tailed)	.188	.299	.133	.355	.057	.000	
	N	64	64	64	64	64	64	64

The study established an inverse insignificant relationship between Financial Leverage and profitability of full-fledged Islamic banks in Kenya ( $r=-0.053$ ,  $p=0.678$ ). This means that decrease in Financial Leverage strengthens profitability of full-fledged Islamic banks in Kenya

There was a direct but insignificant relationship between debt ratio and profitability of full-fledged Islamic banks in Kenya ( $r=.026$ ,  $p=.837>0.05$ ). Capital adequacy had an inverse relationship with profitability of full-fledged Islamic banks in Kenya ( $r=-.141$ ,  $p=.266$ ). The study established a direct relationship between Customer Deposit leverage and profitability of full-fledged Islamic banks in Kenya ( $r=.135$ ,  $p=0.286$ ). Retained Earnings leverage had significant influence on profitability of full-fledged Islamic banks in Kenya measured by ROA ( $R=.715$ ,  $P=0.000<0.05$ ). Size directly moderated the relationship between capital structure and profitability of full-fledged Islamic banks in Kenya relationship with ( $r=.167$ ,  $p=.188$ ).

#### **4.4.2 ROE as a Measure of Profitability**

The researcher further conducted correlation analysis to establish relationship between capital structure and Return on Equity as a measure of profitability of full-fledged Islamic banks in Kenya. The findings are indicated in Table 4.4.

**Table 4.4: ROE as a Measure of Profitability**

		ROE	Financial Leverage	Debt ratio	Capital Adequacy	Customer Deposit Leverage	Retained Earnings Leverage	Size
ROE	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	64						
Financial Leverage	Pearson Correlation	-.039	1					
	Sig. (2-tailed)	.758						
	N	64	64					
Debt ratio	Pearson Correlation	.022	.707	1				
	Sig. (2-tailed)	.864	.000					
	N	64	64	64				
Capital Adequacy	Pearson Correlation	-.123	-.537	-.941	1			
	Sig. (2-tailed)	.335	.000	.000				
	N	64	64	64	64			
Customer Deposit Leverage	Pearson Correlation	.143	.503	.875	-.925	1		
	Sig. (2-tailed)	.259	.000	.000	.000			
	N	64	64	64	64	64		
Retained Earnings Leverage	Pearson Correlation	.638	-.033	-.032	-.038	-.051	1	
	Sig. (2-tailed)	.000	.796	.803	.763	.691		
	N	64	64	64	64	64	64	
Size	Pearson Correlation	.042	-.132	-.190	.117	-.239	.464	1
	Sig. (2-tailed)	.741	.299	.133	.355	.057	.000	
	N	64	64	64	64	64	64	64

From the findings, an inverse relationship was established between financial leverage and profitability of full-fledged Islamic banks in Kenya ( $r=-0.039$ ,  $p=0.758$ ). This means that decrease in financial leverage strengthens Return on equity which transpires into profitability of full-fledged Islamic banks in Kenya. The study established a direct relationship between debt ratio and profitability of full-fledged Islamic banks in Kenya

( $r=.022$ ,  $p=.864>0.05$ ). There was an inverse relationship between capital adequacy and profitability of full-fledged Islamic banks in Kenya ( $r=-.123$ ,  $p=.335$ ). The findings of the study indicated a direct relationship between Customer Deposit leverage and profitability of full-fledged Islamic banks in Kenya ( $r=.143$ ,  $p=0.259$ ). Retained Earnings leverage had significant influence on profitability of full-fledged Islamic banks in Kenya measured by ROA ( $r=.683$ ,  $p=0.000<0.05$ ). Size directly moderated the relationship between capital structure and profitability of full-fledged Islamic banks in Kenya relationship with ( $r=.042$ ,  $p=.741$ ).

#### **4.5 Regression Analysis**

Regression analysis was conducted to establish the effect of capital structure on profitability of full-fledged Islamic banks in Kenya. Profitability in this regard was measured using both Returns on Assets ROA and Return on Equity ROE. Size was used to control the relationship between the study variables. The findings are indicated in subsequent sections.

##### **4.5.1 Regression Results Before Controlling for Size and Return on Assets as Dependent**

The researcher conducted regression analysis using ROA as a measure of profitability of full-fledged Islamic banks in Kenya. The researcher excluded size as a control variable.

The findings are summarized in Table 4.5.

**Table 4.5: Regression Results Before Controlling for Size and Return on Assets as Dependent**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.077	.074		-1.046	.300
Financial Leverage	.006	.026	.034	.239	.812
Debt Leverage	-.004	.003	-.583	-1.616	.112
Capital Adequacy	-.079	.146	-.202	-.540	.591
Customer Deposit Leverage	.145	.069	.478	2.088	.041
Retained Earnings Leverage	.219	.027	.714	8.003	.000
	<b>R=.766</b>	<b>R<sup>2</sup>=.586</b>	<b>Adjusted R<sup>2</sup>=.550</b>	<b>F=16.430</b>	<b>Sig=.000</b>

From the findings, the coefficient of correlation R was 0.766, an indication that capital structure had far reaching positive relationship with ROA as a measured of profitability of full-fledged Islamic banks in Kenya. The coefficient of determination R square is 0.586, showing that the independent variables only account up to 58.6% of financial performance of full-fledged Islamic banks in Kenya.

The ANOVA findings at 5% level of Significance shows an F calculated of 16.430 while F critical  $F_{(5, 58)}$  is 2.374. As F calculated is greater than F critical, this shows that the overall regression model was significant predictor of the relationship between capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya.

The established regression equation therefore becomes:

$$Y(a) = -0.077 + 0.145CDL_4 + 0.219REL_5$$

Where:

**Ya** = Return on Assets



**REL<sub>5</sub>**= Retained Earnings Leverage (Retained Earnings to Total Assets)

**CDL<sub>4</sub>**= Customer Deposits Leverage (Customer Deposits to Total Assets)

This shows that holding other factors constant, of profitability of full-fledged Islamic banks in Kenya. A unit increase in Customer deposit leverage would lead to 14.5% increase in profitability of full-fledged Islamic banks in Kenya. A unit change in retained earnings leverage would result into 21.9% change in profitability of full-fledged Islamic banks in Kenya. At 5% level of significance, the effect of Customer deposit leverage ( $p=0.041<0.05$ ) and retained earnings leverage ( $p=0.000<0.05$ ) was significant.

#### **4.5.2 Regression Results after Controlling for Size and Return on Assets as Dependent**

The researcher sought further to examine the moderating effect of size in the relationship between of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. According to Fairchild and MacKinnon (2009), the difference in the r square ( $r^2_1 - r^2_2$ ) represents the moderating effect to the study variables.

**Table 4.6: Regression Results after Controlling for Size and Return on Assets as Dependent**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.014	.085		.162	.872
Financial Leverage	.011	.025	.059	.420	.676
Debt Leverage	-.005	.003	-.713	-1.989	.052
Capital Adequacy	-.159	.148	-.407	-1.070	.289
Customer Deposit Leverage	.105	.071	.347	1.487	.142
Retained Earnings Leverage	.241	.029	.787	8.303	.000
Size	-.003	.001	-.196	-1.956	.055
	<b>R=.782</b>	<b>R<sup>2</sup>=.612</b>	<b>Adjusted R<sup>2</sup>=.571</b>	<b>F=14.997</b>	<b>Sig=.000</b>

After controlling for size, the coefficient of correlation R changed from .766 to .782 showing that size had strong effect in the relationship between of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. Coefficient of determination changed from 58.6% to 61.2 which was an increase. F critical however decreased from 16.430 to 14.997 although it was significant as compared with F critical 2.263. At 5%, only the ratio of Customer Deposit Leverage was significant in explaining the effect of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya  $p=0.000<0.05$ .

The established equation changes to:

$$Y (a) = 0.014 + 0.241REL_5$$

Where:

$Y_a$  = Return on Assets

$REL_5$  = Retained Earnings Leverage (Retained Earnings to Total Assets)

#### **4.5.3 Regression Results Before Controlling for Size and Return on Equity as Dependent Variable**

The researcher sought further to investigate the effect of capital structure on Return on equity as a measure of profitability of full-fledged Islamic banks in Kenya. Size had not been introduced in the model to control the relationship between these variables. The findings are indicated in Table 4.7

**Table 4.7: Regression Results Before Controlling for Size and Return on Equity as Dependent Variable**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.897	.581		-1.544	.128
Financial Leverage	.061	.205	.047	.296	.768
Debt Leverage	-.028	.021	-.532	-1.329	.189
Capital Adequacy	-.014	1.155	-.005	-.012	.991
Customer Deposit Leverage	1.325	.548	.613	2.420	.019
Retained Earnings Leverage	1.430	.216	.654	6.621	.000
	<b>R=.702<sup>a</sup></b>	<b>R<sup>2</sup>=.492</b>	<b>Adjusted R<sup>2</sup>=.449</b>	<b>F=11.251</b>	<b>Sig=.000</b>

From the findings, the coefficient of determination  $R^2=$  is 0.492 the independent variables of the study contributes 49.2% of profitability of full-fledged Islamic banks in Kenya. The ANOVA statistics of the processed data indicates an F calculated of 11.251 while F critical is 5.58. As F calculated is greater than F critical, this shows that the overall regression model had significant prediction of the effect of capital structure on profitability of full-fledged Islamic banks in Kenya. Both customer deposit leverage  $p=0.019<0.05$  and Retained earnings leverage  $p=0.000<0.05$  had significant effect on return on equity as a measure of profitability of full-fledged Islamic banks in Kenya.

The resultant equation becomes:

$$Y (b) = -0.897-1.325CDL_4+1.430REL_5$$

Where:

$Y_b$ = Return on Equity

$REL_5$ = Retained Earnings Leverage (Retained Earnings to Total Assets)

**CDL<sub>4</sub>**= Customer Deposits Leverage (Customer Deposits to Total Assets)

#### 4.5.4 Regression Results after Controlling for Size and Return on Equity as Dependent Variable

The researcher sought to examine the moderating effect of size in the relationship between capital structure and Return on equity as a measure of profitability of full-fledged Islamic banks in Kenya. The findings are clearly indicated in Table 4.8.

**Table 4.8: Regression Results after Controlling for Size and Return on Equity as Dependent Variable**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.121	.652		.185	.854
Financial Leverage	.111	.194	.085	.572	.570
Debt Leverage	-.038	.020	-.736	-1.919	.060
Capital Adequacy	-.910	1.133	-.326	-.803	.425
Customer Deposit Leverage	.881	.539	.408	1.635	.108
Retained Earnings Leverage	1.682	.222	.769	7.587	.000
Size	-.031	.011	-.307	-2.874	.006
	<b>R=.746<sup>a</sup></b>	<b>R<sup>2</sup>=.557</b>	<b>Adjusted R<sup>2</sup>= .510</b>	<b>F=11.927</b>	<b>Sig=.000</b>

After introducing size as a control variable in the regression model, the coefficient of correlation R changed from .702 to .746 while coefficient of determination increased from .492 to .557 showing the size was a significant moderator of the relationship between capital structure and Return on equity as a measure of profitability of full-fledged Islamic banks in Kenya. The value of F calculated 11.927 as compared to F critical 2.263 still indicates that the overall model was significant predictor of this relationship between the variables of the study. At 5% significance level, only Retained earnings leverage had significant effect on ROE as a measure of profitability of full-fledged Islamic banks in Kenya.

The resultant equation therefore becomes:

$$Y (b) = 0.121+1.682REL_5-0.031S_6$$

Where:

$Y_b$  = Return on Equity

$REL_5$ = Retained Earnings Leverage (Retained Earnings to Total Assets)

$S_6$ = Size of Bank (Natural Logarithm of Bank's Total Assets)

#### **4.6 Discussions**

When Return on Assets ROA was used as a measure of profitability of full-fledged Islamic banks in Kenya, correlation results indicated an retained earnings leverage had significant influence on profitability of full-fledged Islamic banks in Kenya measured by ROA ( $r=.715$ ,  $P=0.000<0.05$ ). Using ROE as a measure of profitability of full-fledged Islamic banks in Kenya, correlation analysis results showed that retained earnings leverage had significant influence on profitability of full-fledged Islamic banks in Kenya measured by ROA ( $r=.683$ ,  $p=0.000<0.05$ ). These findings suggest that increase in retained earning leverage of full-fledged Islamic banks in Kenya increases ROA and ROE which transpires into profitability. This finding concurs with Khrawish (2011) who established that the higher the ROE, the better the firm's profit earning that ROE is the ratio of Net Income after Taxes divided by Total Equity Capital.

From regression analysis results, when ROA was used a measure of profitability and before controlling for size, the coefficient of correlation R was 0.766, an indication that capital structure had far reaching positive relationship with ROA as a measured of

profitability of full-fledged Islamic banks in Kenya. The coefficient of determination  $R^2$  is 0.586, showing that the independent variables only account up to 58.6% of financial performance of full-fledged Islamic banks in Kenya. The ANOVA findings at 5% level of Significance shows an F calculated of 16.430 while F critical  $F_{(5, 58)}$  is 2.374. As F calculated is greater than F critical, this shows that the overall regression model was significant predictor of the relationship between capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. At 5% level of significance, the effect of Customer deposit leverage ( $p=0.041<0.05$ ) and retained earning leverage ( $p=0.000<0.05$ ) was significant. In view of the theory of market timing, companies time their equity before they give fresh stock at the time when the prices are perceived to be overrated, and buy the shares again when the prices drop. This way, retained earnings are enhanced which improves profitability (Baker & Wurgler, 2002).

After controlling for size and ROA as dependent variable, the coefficient of correlation R changed from .766 to .782 showing that size had strong effect in the relationship between of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. Coefficient of determination changed from 58.6% to 61.2 which was an increase. At 5%, only the ratio of customer deposit leverage was significant in explaining the effect of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya  $p=0.000<0.05$ . This showed that customer deposit leverage was a critical capital structure element of Islamic banks that enhanced their profitability.

Before controlling and ROE as a measure of profitability, the study established the coefficient of determination  $R^2$  is 0.492 the independent variables of the study contributes 49.2% of profitability of full-fledged Islamic banks in Kenya. The ANOVA

statistics of the processed data indicates an F calculated of 11.251 while F critical is 5.58. As F calculated is greater than F critical, this shows that the overall regression model had significant prediction of the effect of capital structure on profitability of full-fledged Islamic banks in Kenya. Both customer deposit leverage  $p=0.019<0.05$  and retained earning leverage  $p=0.000<0.05$  had significant effect on return on equity as a measure of profitability of full-fledged Islamic banks in Kenya. The argument of the significance of retained earning leverage is explained by (Ilhomovich, 2009).

When the relationship between independent variables and ROE was controlled by size, the coefficient of correlation R changed from .702 to .746 while coefficient of determination increased from .492 to .557 showing the size was a significant moderator of the relationship between capital structure and Return on Assets as a measure of profitability of full-fledged Islamic banks in Kenya. The value of F calculated 11.927 as compared to F critical 2.263 still indicates that the overall model was significant predictor of this relationship between the variables of the study. At 5% significance level, only retained earnings leverage had significant effect on ROE as a measure of profitability of full-fledged Islamic banks in Kenya. According to (Ilhomovich, 2009), retained earnings are the best source of long term capital since it is readily accessible and cheap.

The study established that using both ROA and ROE as measures of performance indicated that the customer deposit leverage and retained earnings leverage all had significant influence on profitability of full-fledged Islamic banks in Kenya. However, financial leverage, debt ratio and Capital Adequacy all had insignificant effect on profitability of full-fledged Islamic banks in Kenya. The findings of financial leverage and profitability contradicts Abor's (2005) who established a positive association

concerning short-term debt to total assets as well as efficiency between total liability to total resources and productivity in the service industry.

Overall, return on asset was an efficient measure of profitability of full-fledged Islamic banks in Kenya  $R^2=58.6\%$  than ROE whose  $R^2=49.2\%$ . According to Wen (2010) high ROA indicates that a firm has efficiently used its resources. The ROA calculates an Islamic bank ability to generate revenue by economically making use of its resources that is its assets. Khrawish (2011) on the other hand posits that ROA indicates management efficiency of a firm's productivity, having entirely utilized assets of the firm. According to Murthy and Sree (2003) and Alexandru et al., (2008), measuring profitability of Islamic banks, entails varieties of financial ratios such as Return on Asset, Return on Equity and Net Profit Margin.



## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter summarizes the findings of the analyzed research data in line with the objectives. The summarized key findings of the study are used by the researcher in drawing relevant conclusions of the study. The findings of the study also informed recommendations of the study to relevant policy makers and theory. The chapter further presents limitations of the study which were encountered in the entire research exercise. The chapter concludes by suggestions for further research that help future researcher and scholars to advance the topic further.

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

The purpose of this study was to examine the effect of capital structure on the profitability of fully fledged Islamic banks in Kenya, while the specific objective involved to determine how financial leverage, debts ratio, capital adequacy, customer deposit leverage, retained earning leverage and firm size affected profitability of fully fledged Islamic banks in Kenya. The study used secondary data collected using data collection sheet. The collected data was analyzed using SPSS software. A summary of the analyzed findings is presented in this subsection.

When Return on Assets ROA was used as a measure of profitability of full-fledged Islamic banks in Kenya, correlation results indicated an retained earning leverage had significant influence on profitability of full-fledged Islamic banks in Kenya measured by ROA ( $r=.715$ ,  $P=0.000<0.05$ ). Using ROE as a measure of profitability of full-fledged

Islamic banks in Kenya, correlation analysis results showed that retained earnings leverage had significant influence on profitability of full-fledged Islamic banks in Kenya measured by ROA ( $r=.683$ ,  $p=0.000<0.05$ ).

From regression analysis results, when ROA was used a measure of profitability and before controlling for size, the coefficient of correlation R was 0.766, an indication that capital structure had far reaching positive relationship with ROA as a measure of profitability of full-fledged Islamic banks in Kenya. The coefficient of determination R square is 0.586, showing that the independent variables only account up to 58.6% of financial performance of full-fledged Islamic banks in Kenya. The ANOVA findings at 5% level of Significance shows an F calculated of 16.430 while F critical  $F_{(5, 58)}$  is 2.374. As F calculated is greater than F critical, this shows that the overall regression model was significant predictor of the relationship between capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. At 5% level of significance, the effect of customer deposit leverage ( $p=0.041<0.05$ ) and retained earnings leverage ( $p=0.000<0.05$ ) was significant.

After controlling for size and ROA as dependent variable, the coefficient of correlation R changed from .766 to .782 showing that size had strong effect in the relationship between of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. Coefficient of determination changed from 58.6% to 61.2 which was an increase. At 5%, only customer deposit leverage was significant in explaining the effect of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya  $p=0.000<0.05$ .

Before controlling and ROE as a measure of profitability, the study established the coefficient of determination  $R^2 = 0.492$  the independent variables of the study contributes 49.2% of profitability of full-fledged Islamic banks in Kenya. The ANOVA statistics of the processed data indicates an F calculated of 11.251 while F critical is 5.58. As F calculated is greater than F critical, this shows that the overall regression model was a significant predictor of the effect of capital structure on profitability of full-fledged Islamic banks in Kenya. Both customer deposit leverage  $p=0.019 < 0.05$  and retained earnings leverage  $p=0.000 < 0.05$  had significant effect on return on equity as a measure of profitability of full-fledged Islamic banks in Kenya.

When the relationship between independent variables and ROE was controlled by size, the coefficient of correlation R changed from .702 to .746 while coefficient of determination increased from .492 to .557 showing the size was a significant moderator of the relationship between capital structure and Return on Assets as a measure of profitability of full-fledged Islamic banks in Kenya. The value of F calculated 11.927 as compared to F critical 2.263 still indicates that the overall model was significant predictor of this relationship between the variables of the study. At 5% significance level, only retained earnings leverage had significant effect on ROE as a measure of profitability of full-fledged Islamic banks in Kenya. Overall, return on asset was an efficient measure of profitability of full-fledged Islamic banks in Kenya  $R^2=58.6\%$  than ROE whose  $R^2=49.2\%$ .

Regression analysis using both ROA and ROE as measures of performance indicated that the ratio of customer deposit leverage and retained earnings leverage all had significant influence on profitability of full-fledged Islamic banks in Kenya. However, financial

leverage, debt ratio and Capital Adequacy all had insignificant effect on profitability of full-fledged Islamic banks in Kenya

### **5.3 Conclusion**

Retained earnings leverage had strong direct relationship with ROA as a measure of profitability of full-fledged Islamic banks in Kenya. Moreover, Retained Earnings leverage had strong direct relationship with ROE as a measure of profitability of full-fledged Islamic banks in Kenya. The positive effect of Retained Earnings Leverage on profitability implies that in order for Islamic Banks and all other companies in Kenya to enhance their profitability, a considerable portion of profits generated should be set aside for retained earnings while the rest for investment purposes. In other words, there should be a tradeoff between retained earnings portion and investment projects generally called capital budgeting. There are several benefits associated with use of retained earnings to an Islamic bank for example reduced floatation costs of new shares, reduced chances of dilution of the shares among other benefits and this enhances profitability. The argument of use of retained earning leverage in enhancing profitability is well illustrated by the Pecking Order Theory formulated by Myers and Majluf's (1984). The Market Timing Theory by Baker and Wurgler (2002) further supports the argument of use of retained earning capital structure of Islamic banks.

Capital structure had far reaching positive relationship with ROA as a measured of profitability of full-fledged Islamic banks in Kenya. Customer deposit leverage and Retained earnings leverage had significant effect on ROA as a measured of profitability of full-fledged Islamic banks in Kenya before the controlling effect of size. When size

controls this relationship, only the ratio of customer deposit leverage was significant in explaining the effect of capital structure and ROA as a measure of profitability of full-fledged Islamic banks in Kenya. Islamic banks should therefore strengthen their capital structures (by increasing customer deposits and retaining a substantial portion of the comprehensive income) which transpire into improved performance. The argument of whether capital structure is relevant or irrelevant can be explained in the Capital Structure Irrelevance Theory by Modigliani and Miller (1958).

Both customer deposit leverage and retained earnings leverage had significant effect on return on equity as a measure of profitability of full-fledged Islamic banks in Kenya. However, after controlling for size, only retained earnings leverage had significant effect on ROE as a measure of profitability of full-fledged Islamic banks in Kenya. In deciding whether to increase their customer deposits or retained earnings for improved profitability, companies including Islamic banks should consider their relative size in the entire banking industry among other factors.

Overall, return on asset was an efficient measure of profitability of full-fledged Islamic banks in Kenya. However, size has a significant controlling effect in assessment of profitability of full-fledged Islamic banks in Kenya. Broadly, there are financial and non financial measures of profitability of an institution. Different measures of performance should be used for comparison of results.

#### **5.4 Recommendations**

The study recommends that the top management of full-fledged Islamic banks in Kenya should enhance their retained earning leverage by expanding their investment strategy

that increases profits which transpires into increased retained earnings. Investment strategy calls for sound capital budgeting techniques in these institutions.

The Central bank of Kenya should formulate sound and efficient rules and regulations that favor establishment and performance of full-fledged Islamic banks in Kenya. The policies and regulations formulated by CBK should be geared towards growing the customer deposits of these full-fledged Islamic banks in Kenya.

Profitability and financial performance of decisions of all full-fledged Islamic banks and other banks generally operating in Kenya should be based numerous factors including the size of the institution in the entire banking industry. This is because diverse factors affect profitability of firms in a given industry.

All financial institutions in Kenya including the full-fledged Islamic banks should determine their profitability using ROA as compared to Return on Equity; however proper care should be exercised in making this decision since other factors like size have an effect on profitability of these firms.

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

This study was specifically done with reference to full-fledged Islamic banks and therefore the findings may not directly apply to other financial institutions in the normal trading activity. This is because Islamic banks are guided by specific Islamic Laws that restrict the payment and collection of riba (interest) to its clients and lenders. The researcher collected secondary data from financial statements of the studies banks. However, banks like Gulf of African Bank (GAB) had been structured into a group and

the bank itself. Data from the group and the bank differed and the researcher overcame this by simply using information from the bank but not the Gulf Group.

### **5.6 Suggestion for Further Research**

The current study was done among Islamic banks; future similar studies should be conducted in listed commercial banks on NSE or East Africa Security Exchange, non financial firms and other segments of the NSE listed firms. The researcher mainly used secondary data in the current study, future studies should use both primary and secondary. Regression analysis indicated R square of 58.6% and 49.2% for ROA and ROE respectively, showing that other capital structure factors affect profitability of full-fledged Islamic banks which future studies should be done to establish.

## REFERENCES

- AhmFama, E., & French, K. R. (2002). Testing trade-off and Pecking order predictions about dividends and debt. *Review of financial studies*, 1-33.ad, K.
- (1952). *Economics of Islam: A Comparative Study*.
- Akerlof, G. A. (1970). The Market for 'emons': Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics*, 488-500.
- Badr-El-Din, A., Ibrahim, & Vijaykumar, K.C. (2003). *Some Aspects of Liquidity in Islamic Banks (ISBS) A Case Study of Selected Banks in the Mena Region*. Research report 422 sponsored by the ERF Research Program.
- Baker, M., & Wurgler, J. (2002). *Market timing and capital structure*. *Journal of Finance*, 57.
- Berens, James L. and Cuny, C. J (1995), *The Capital Structure Puzzle Revisited*, *The Review of Financial Studies*, 8.
- Berger, A. N. & Udell, P. (2006), "Capital structure and firm performance: a new approach testing agency theory and an application to the banking industry", *Journal of Banking & Finance*, 30 (4), 1065-102.
- Brander, J. A., & Lewis, T. R., (1986). *Oligopoly and financial structure: the limited liability effect*
- Campbell A. (2010). Middle East maelstrom. *Risk magazine*.
- Campello, M., Graham, J. R., & Harvey, C. R. (2010). The Real Effects of Financial Constraints: Evidence from a Financial Crisis. *Journal of Economic*, 97(3), 470-487.
- Chapra, M. U. (1985). *Towards a Just Monetary System, London*. The Islamic Foundation.
- Chiang, Y. H., Chan, P. C., & Hui, C. M. (2002). Capital Structure of the Property and Construction Sectors in Hong Kong. *Journal of Property Investment and Finance*, 434-454.
- Cook C. (2006). Is Islamic banking religiously sound? *Financial Times Correction, The American Economic Review*, 53: 433-443.



- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications, Incorporated.
- Drobetz, W., & Fix, R. (2003). *What are the Determinants of the Capital Structure? Some Evidence for Switzerland*. Working Paper, 88.
- Erasmus, P. D. (2008). *Evaluating Value Based Financial Performance Measures*.
- Flannery, M. & Rangan, K. (2004). *Partial Adjustment Toward Target Capital Structures*, Working paper, University of Florida.
- Graham, J. & Harvey, C. (2001). The theory and practice of corporate finance: evidence from the field. *Journal of financial economics*, 50, 187-243.
- Gul, S., Faiza, I., Khalid, Z. (2011). Factors Affecting Bank Profitability in Pakistan. *The Romanian Economic Journal*, 2(3).6-9.
- Hasan, M. M. & Dridi, J. (2010). *The Effects of the Global Crisis on Islamic and Conventional Banks: A Comparative Study*. IMF Working Papers.
- Hassan, M. K. & Bashir, A. M. (2003). *Determinants of Islamic banking profitability*. ERF paper.
- Hovakimian, A., Opler, T. & Titman, S. (2002). The Capital Structure Choice: New Evidence for a Dynamic Trade-Off Model, *Journal of Applied Corporate Finance*, (Spring 2002), 15(1).
- Ilhomovich. (2009). *Factors affecting the performance of foreign banks in Malaysia*. Malaysia international Monetary Fund. (2009). IMF Annual Report.
- Jarrow, R. (2013). A leverage ratio rule for capital adequacy. *Journal of Banking & Finance*, 37(3), 973-976.
- Jensen, M., & Meckling, W., (1976). *Theory of the firm: managerial behavior, agency*
- Khan, M.S. & Mirakhor, A. (1990). Islamic Banking: Experiences in the Islamic Republic of Iran and in Pakistan. *Economic Development and Cultural Change*.
- Khan, S. R. (1987). *Profit and Loss Sharing – An Islamic Experiment in Finance and Banking*. Oxford University Press
- Khrawish, H.A. (2011). Determinants of Commercial Banks Performance: Evidence from Jordan International Research. *Journal of Finance and Economics*. Zarqa University, 5(5).19-45.
- Kinsman, M., & Newman, J. (1998). *Debt tied to lower firm performance*. Pepperdine.

- Kochhar, R. (1997). Strategic assets, capital structure and firm performance. *Journal of financial and strategic decisions*, 10, 23-36.
- Kweri, S. M. (2011). *The relationship between working capital management and profitability of manufacturing firms listed at the Nairobi Stock Exchange*, MBA project University of Nairobi.
- Kyereboah-Coleman, A. (2007), "The impact of capital structure on the performance of microfinance institutions" *The Journal of Risk Finance*, Emerald Group Publishing Limited, 8 (1), 56-84.
- Margaritis, D. &. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 621-632.
- Miller, M. H. (1977). *Debt and taxes*. *Journal of Finance*. (32): 261–76
- Modigliani, F. & Miller, M., (1958). *The cost of capital, corporation finance and theory*
- Modigliani, F. & Miller, M., (1963). Corporate Income Taxes and the Cost of Capital: A Correction, *The American Economic Review*, 53: 433-443.
- Mohammadzadeh, M., Rahimi, F., Rahimi, F., Aarabi, S.M., & Salamzadeha, J. (2013). The Effect of Capital Structure on the Profitability of Pharmaceutical Companies: The Case of Iran *Iranian Journal of Pharmaceutical Research*. Summer; 12(3): 573–577.
- Mose, O. K. (2011). *The relationship between capital structure and financial performance of microfinance institutions in Kenya*, MBA project University of Nairobi.
- Murthy, Y., Sree, R. (2003). *A Study on Financial Ratios of major Commercial Banks* *Research Studies*. College of Banking & Financial Studies, Sultanate of Oman.
- Myers, S. C. (2001). Capital Structure. *Journal of Economic Perspectives*. 15: 81–102. *ct, American Economic Review*, 76 (5): 956–970.
- Myers, S., & Majluf, N., (1984). Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics*, 13: 187–221.
- Pais, A., & Stork, P. A. (2013). Bank size and systemic risk. *European Financial Management*, 19(3), 429-451.

- Reddy, K. K. (2012). Capital Structure and its Impact on Profitability in Select Software.
- Rehman, S. S. F. U. (2013). Relationship between financial leverage and financial performance: Empirical evidence of listed sugar companies of Pakistan. *Global Journal of Management and Business Research*.
- Ryan, B. (2007). *Corporate Finance and Valuation*. Cengage Learning EMEA.
- Samad, A. & Hassan, K. (1998). The Performance of Malaysian Islamic banks during 1984-1997: An Exploratory Study. *International Journal of Islamic Financial Services*.
- Samad, A. (2004). Performance of interest-free Islamic Banks vis-à-vis interest-based conventional banks of Bahrain. *IIUM Journal of Economics and Management*.
- Samad, Abdus, (1999) Comparative Efficiency of the Islamic Bank Malaysia vis-à-vis Conventional Banks. *IIUM Journal of Economics and Management* 7 (1) 1-25
- San, O. T. & Heng, T. B. (2011). Capital Structure and Corporate Performance of Malaysian Construction Sector, *International Journal of Humanities and Social Science*, 1(2): 28-36.
- Shyam-Sunder, & Myers. (1999). Testing static trade-off against pecking order models of capital structure. *Journal of Financial Economics*, 51.
- Smith, Clifford, W., & Watts, R. L. (1992). The Investment Opportunity Set and Corporate Financing, Dividend, And Compensation Policies. *Journal of Financial Economics*, 32: 263-92.
- Titman, & Wessels. (1988). The determinants of Capital Structure choice. *Journal of Finance*, 43.
- Tudose, M. B. (2012). Capital Structure and Firm Performance, *Economy Trans disciplinarily Cognition*, 15 (2): 76-82
- Uzair, M. (1955). An Outline of Interestless Banking.
- Velnampy, T. & Niresh, J. A. (2012). The Relationship between Capital Structure and Profitability, *Global Journal of Management and Business Research*, 12(13): 67-74

## APPENDICES

### APPENDIX 1: DATA EXTRACTION EXCEL SHEET

Financial Ratio against Q. Year	2009,2010	2011,2012	2013,2014	2015,2016
	Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4
ROA				
ROE				
TL: TA				
TL: TE				
TE: TA				
CD: TA				
RE: TA				
Size (LN TA)				

**APPENDIX II: LIST OF CBK LICENSED FULLY FLEDGED ISLAMIC  
COMMERCIAL BANKS IN KENYA**

1. Dubai Islamic Bank Kenya
2. First Community Bank Ltd
3. Gulf African Bank Ltd

**Source: (Central Bank of Kenya, 2017)**

**APPENDIX III: DATA USED FOR THE STUDY**

ROA (Dependent Variable)	ROE (Dependent Variable)	Total Liabilities to Total Assets - Independent	Total Liabilities to Equity-Independent	Capital Adequacy (Equity to Total Assets)-Independent	Customer Deposit to Total Assets-Independent	R Earnings to Total Assets - Independent	Size (LN of Total Assets) - Control Variables
-0.018329371	-0.08191709	0.776244901	3.469171899	0.223755099	0.745496701	-0.10896	15.4756
-0.029279047	-0.163435928	0.820853059	4.582009896	0.179146941	0.77729886	-0.1073088	15.6253
-0.029466121	-0.196167731	0.849791194	5.657399292	0.150208806	0.820040456	-0.0967321	15.7737
-0.01591921	-0.107271807	0.851599316	5.738513394	0.148400684	0.829131468	-0.0834739	15.8631
-0.01212158	-0.047330627	0.743902089	2.904760489	0.256097565	0.696794157	-0.0899078	14.8768
-0.025843135	-0.129992085	0.801194552	4.03004325	0.198805448	0.753447234	-0.0909938	15.0541
-0.025	-0.13	0.81	4.96	0.17	0.76	-0.09	15.06
-0.025255491	-0.169636579	0.851120242	5.716821223	0.148879982	0.818165542	-0.075757	15.3088

0.003 0699	0.021 5198 78	0.857345 844	6.00996 0527	0.14265415 6	0.8353866 7	- 0.07544 48	15.9243
0.006 1065	0.043 0505 27	0.858155 04	6.04995 0861	0.14184496	0.8373198 96	- 0.07060 35	15.9523
0.004 8853 24	0.035 8552 91	0.863748 876	6.33938 9005	0.13625112 4	0.8444559 32	- 0.06935 39	15.985
0.007 7020 57	0.060 3787 09	0.872437 542	6.83929 7066	0.12756245 8	0.8507868 57	- 0.06224 06	16.0767
- 0.007 7366 37	- 0.055 5046 17	0.860612 727	6.17425 613	0.13938727 3	0.8225088 13	- 0.08259 99	15.3206
- 0.012 4293 6	- 0.114 0171 58	0.890986 937	8.17321 2557	0.10901306 3	0.8616442 15	- 0.07422 43	15.5125
- 0.021 0318 26	- 0.231 2046 78	0.909033 735	9.99308 6258	0.09096626 5	0.8662822 9	- 0.08068 15	15.5778
- 0.015 2828 82	- 0.172 5005 76	0.911403 81	10.2871 7537	0.08859611 9	0.8793777 47	- 0.06814 13	15.6687
0.000 4028 52	0.003 2130 98	0.874622 039	6.97588 3439	0.12537796 1	0.8532528 26	- 0.06057 53	16.0971
0.002 1143 16	0.018 0898 58	0.883121 483	7.55589 2262	0.11687851 7	0.8663885 96	- 0.05388 17	16.1824
0.006 2638 7	0.057 4505 68	0.890969 391	8.17173 6348	0.10903060 9	0.8574112 15	- 0.04387 83	16.2928

0.007 3816 27	0.072 2685 43	0.897858 364	8.79032 6848	0.10214163 6	0.8412792 58	- 0.03848 5	16.3739
0.002	0.024	0.885	8.656	0.09	0.886	-0.06	15.754
0.004	0.03	0.879	8.701	0.091	0.885	-0.058	15.776
0.003 9551 36	0.039 0264 66	0.898655 034	8.86728 8364	0.10134496 6	0.8902667 32	- 0.05153 81	15.8745
0.008 1647 74	0.085 2568 45	0.904779 6	9.44773 8694	0.09576678 9	0.8942276 45	- 0.04160 28	15.9829
0.005 2135 95	0.047 0419 62	0.889171 399	8.02294 1625	0.11082860 1	0.8333294 9	- 0.03458 03	16.3405
0.009 4333 65	0.086 1869 75	0.890547 673	8.13639 7768	0.10945232 7	0.8458911 5	- 0.02825 21	16.3949
0.014 2729 17	0.121 0561 91	0.882096 758	7.48153 0984	0.11790324 2	0.8540532 16	- 0.02477 31	16.3594
0.017 8605 11	0.155 1308 51	0.884868 091	7.68568 9363	0.11513190 9	0.8615601 54	- 0.01974 91	16.4228
0.006 7048 79	0.062 2902 86	0.892360 756	8.29029 1937	0.10763924 4	0.8808351 75	- 0.03714 29	13.5217
0.010 9108 14	0.105 2142 23	0.896299 059	8.64311 4018	0.10370094 1	0.8770886 12	- 0.02939 89	12.5289
0.029 4010 28	0.267 4871 07	0.890084 317	8.09788 282	0.10991568 3	0.8740195 49	- 0.01235 97	12.6809
0.024 2304 1	0.223 8698 15	0.891765 671	8.23920 9051	0.10823437 9	0.8869433 75	- 0.01226 25	12.6866



0.008 7634 92	0.069 9294 33	0.874680 927	6.97963 1349	0.12531907 3	0.8391890 43	- 0.01482 32	16.3845
0.012 2005 88	0.071 5712 95	0.829532 39	4.86621 7042	0.17046761	0.7685502 08	- 0.01017 78	16.5095
0.019 1749 17	0.111 2746 23	0.827679 331	4.80313 4383	0.17232066 9	0.8001234 28	- 0.00275 61	16.5257
0.017 7823 29	0.106 2862 49	0.832693 98	4.97707 1222	0.16730602	0.8078877 18	0.00491 57	16.5915
0.003 7531 31	0.032 0731 07	0.882981 994	7.54569 3378	0.11701800 6	0.8758498 19	- 0.00907 78	16.0685
0.006 8516 59	0.058 8059 76	0.883487 029	7.58273 5396	0.11651297 1	0.8740403 84	- 0.00556 81	16.1009
0.009 4599 04	0.083 8880 38	0.887231 793	7.86774 7617	0.11276820 7	0.8752389 15	- 0.00223 78	16.1606
0.011 6936 79	0.109 2490 25	0.892963 054	8.34257 0975	0.10703691 4	0.8785397 64	0.00089 29	16.2408
0.005 0685 6	0.031 0096 73	0.836549 053	5.11804 3477	0.16345094 7	0.8026469 85	0.00971 74	16.6463
0.010 3438 16	0.062 5296 24	0.834577 349	5.04512 1348	0.16542265 1	0.8021240 53	0.01463 08	16.6674
0.014 0977 22	0.085 7893 85	0.842533 811	5.12710 1777	0.16432944 9	0.7715471 48	0.01701 38	16.7677
0.020 3188 81	0.127 5539 99	0.334468 061	2.09965 9864	0.15929630 6	0.7995751 37	0.00461 05	16.7988

0.001 2480 22	0.012 7317 96	0.901975 943	9.20157 7335	0.09802405 7	0.8696175 63	0.00205 44	16.3416
0.002 8220 3	0.028 7583 12	0.901870 815	9.19064 8105	0.09812918 6	0.8967043 08	0.00361 62	16.3569
0.007 0797 36	0.070 5729 76	0.899682 048	8.96830 5614	0.10031795 2	0.8943289 95	0.00785 67	16.3788
0.003 3012 84	0.033 2321 13	0.900659 808	9.06641 9063	0.09934019 2	0.8730572 53	0.00396 13	16.5419
0.007 5112 35	0.047 3388 01	0.841330 275	5.30239 9516	0.15866972 5	0.7950847 97	0.02720 73	16.8513
0.018 4896 5	0.114 0267 69	0.837848 163	5.16705 9346	0.16215183 7	0.8128476 33	0.03674 66	16.9021
0.024 3100 25	0.154 8883 8	0.843048 105	5.37137 8939	0.15695189 5	0.7821088 15	0.04209 97	16.982
0.029 5666 2	0.188 4524 78	0.843108 351	5.37382 5562	0.15689164 9	0.7697594 81	0	17.0229
0.002 4903 2	0.022 6670 06	0.890134 569	8.10204 4123	0.10986543 1	0.8816637 85	0.00649 25	16.5317
0.003 3395 6	0.032 2068 73	0.896309 091	8.64404 7044	0.10369090 8	0.8256809 64	0.00708	16.5993
0.004 0743 58	0.037 9642 22	0.892679 004	8.31784 1221	0.10732099 6	0.8391782 77	0.00792 26	16.5709
- 0.000 7240	- 0.006 5589	0.889607 989	8.05862 6565	0.11039201 1	0.8451461 58	0.00341 76	16.4974

54	39						
0.007 6112 5	0.043 9139 36	0.826678 034	4.76960 9156	0.17332196 6	0.7697562 36	0.05813 19	16.9682
0.012 6595 92	0.069 5022 46	0.817853 488	4.49008 5918	0.18214651 2	0.7624742	0.06433 15	16.9457
0.016 7239 41	0.092 7531 84	0.819694 161	4.54613 2078	0.18030583 9	0.7625331 89	0.06659 55	16.9811
0.018 3501 31	0.113 8835 39	0.838869 33	5.20614 3144	0.16113067	0.8011021 69	0.05856 1	17.1171
0.003 8253 35	0.033 9675 16	0.887382 564	7.87961 9661	0.11261743 6	0.8238922 65	0.00719 33	16.512
0.005 6386 5	0.050 0377 17	0.887312 014	7.87406 0475	0.11268798 6	0.8443149 88	0.00895 27	16.5282
0.005 1268 85	0.044 1105 72	0.883771 974	7.60377 6868	0.11622802 6	0.8374811 79	0.00856 64	16.491
- 0.003 7250 09	- 0.035 7863 42	0.895909 749	8.60704 7657	0.10409025 1	0.8458351 15	- 0.00038 72	16.521