

**FINANCIAL LEVERAGE AND PROFITABILITY OF BANKS. A CASE STUDY OF
EQUITY BANK UGANDA LIMITED**

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BBA-FA

**A RESEARCH REPORT SUBMITTED TO THE COLLEGE OF ECONOMICS AND
MANAGEMENT IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE
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DECLARATION

I Bero Oliver, declare that this report is my original work and it has never been submitted to any university, or similar institution of higher learning, for the awarding of a degree, or any other academic award.

Signature: 

Date: 5th / 7 / 2018

APPROVAL

I confirm that the work reported in this report was carried out by the candidate under my supervision.

Signed:

Supervisor's Name: Dr. Emenike Kalu. O

Date: 05/07/2018

DEDICATION

I dedicate this research report to my parents who supported me through my education career.

ACKNOWLEDGEMENT

I would like to acknowledge and express my heartfelt gratitude to all those who helped me complete my report and supported me throughout my studies. First of all, I would like to thank the Almighty God for making it possible for me to complete this report. Secondly I thank my supervisor Dr. Eminike O. Kalu for his timeless guidance and correction in the conduct of this research report. I am extremely grateful for all his valuable comments and guidance throughout the process of writing my report. Further thanks to the management of EBUL for its support in providing me with the data and to the authors whom I have used their references in coming up with this thesis. In addition, many thanks to my family and friends for their moral support and encouragements in helping me accomplish my academic education. At last, I would also like to thank Kampala International University for their excellent and outstanding level of academic education.

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	ix
LIST OF FIGURES.....	x
LIST OF ACRONYMS.....	xi
ABSTRACT	xii
CHAPTER ONE	1
INTRODUCTION.....	1
1.0 Introduction	1
1.1 Background to the study	1
1.1.1 Historical perspective	1
1.1.2 Theoretical perspective	3
1.1.3 Conceptual perspective	4
1.1.4 Contextual perspective.....	5
1.2. Statement of the problem	5
1.3 Purpose of the study	6
1.4 Research objectives.....	6
1.5 Research questions.....	6
1.6 Hypotheses	7
1.7 Scope of study	7
1.7.1 Geographical scope.....	7
1.7.2 Content scope	7

1.7.3 Time scope	7
1.8 Significance of the study	7
1.9 Operational definition of key terms	8
CHAPTER TWO	10
LITERATURE REVIEW	10
2.0 Introduction	10
2.1 Theoretical review	10
2.1.1 Trade-off theory	10
2.1.2 Irrelevancy theory	11
2.1.3 Pecking order theory.....	12
2.2 Concept of financial leverage	12
2.3 Conceptual framework	13
2.3.1 Debt ratio	13
2.3.2 Debt-equity ratio	14
2.3.3 Interest coverage ratio.....	15
2.4 Profitability.....	16
2.4.1 Return On Assets.....	17
2.4.2 Return On Equity	17
2.5 Empirical review	18
2.5.1 Relationship between debt ratio and profitability	18
2.5.2 Relationship between debt-equity ratio and profitability	19
2.5.3 Relationship between interest coverage ratio and profitability.....	21
2.6 Research gaps.....	22
CHAPTER THREE.....	23
METHODOLOGY	23
3.0 Introduction	23

3.1 Research design	23
3.2 Nature and source of data	23
3.3 Method of data analysis	23
3.4 Model Specifications	24
3.5 Ethical considerations	25
CHAPTER FOUR	26
PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA.....	26
4.1 Introduction	26
4.2 Descriptive statistics on research variables	26
4.3 Effect of debt ratio on profitability of Equity Bank Uganda Limited	27
4.4 Effect of debt-equity ratio on profitability of Equity Bank Uganda Limited.....	28
4.5 Effect of interest coverage ratio on profitability of Equity Bank Uganda Limited	30
4.6 Hypotheses testing	31
CHAPTER FIVE.....	33
DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	33
5.1 Introduction	33
5.2 Discussion of findings	33
5.2.1 Effect of debt ratio on profitability of Equity Bank Uganda Limited	33
5.2.2 Effect of debt-equity ratio on profitability of Equity Bank Uganda Limited...	33
5.2.3 Effect of interest coverage ratio on profitability of Equity Bank Uganda Limited	34
5.3 Conclusions of the study	34
5.4 Recommendations	35
5.5 Contribution to knowledge	35
5.6 Areas for future research	36

REFERENCES 37

APPENDICES..... 46

APPENDIX A:EBUL PANEL DATA (In millions of Shillings) 46

APPENDIX B:TIME FRAME 47

APPENDIX C:ACTUAL STUDY BUDGET..... 48

LIST OF TABLES

Table 3.1: Measurement of variables	24
Table 4.1: Descriptive statistics on research variables.....	26
Table 4.2 A: Model summary	27
Table 4.2 B: Analysis Of Variance (ANOVA ^a)	27
Table 4.2 C: Coefficients ^a	28
Table 4.3 A: Model summary	28
Table 4.3 B: Analysis Of Variance (ANOVA ^a)	29
Table 4.3 C: Coefficients ^a	29
Table 4.4 A: Model summary	30
Table 4.4 B: Analysis Of Variance (ANOVA ^a)	30
Table 4.4 C: Coefficients ^a	31

LIST OF FIGURES

Figure 2.1: Conceptual framework of financial leverage and profitability	13
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LIST OF ACRONYMS

DER	Debt-Equity Ratio
DR	Debt Ratio
EBIT	Earnings Before Interest and Tax
EBUL	Equity Bank Uganda Limited
EPS	Earnings Per Share
i.e.	that is
ICR	Interest Coverage Ratio
IE	Interest expense
N.I.I	Net interest Income
N1	one naira
NPM	Net Profit Margin
OLS	Ordinary Least Squares
PLC	Public Limited Company
ROA	Return on Assets
ROE	Return on Equity
TA	Total Assets
TE	Total Equity
TL	Total liabilities
WCC	Weighted Average Cost Of Capital

ABSTRACT

The purpose of this study was to investigate the effect of financial leverage on profitability of Equity Bank Uganda Limited. The study was based on the following 3 objectives; (i) to examine the effect of debt ratio on profitability of Equity Bank Uganda Limited; (ii) to determine whether debt-equity ratio have any effect on profitability of Equity Bank Uganda Limited; and (iii) to establish if there is any effect of interest coverage ratio on profitability of Equity Bank Uganda Limited. The study adopted ex post facto research design technique and employed panel data of Equity Bank Uganda Limited over the period of 2006-2015. The method of data analysis used for the study was ordinary least square. The findings revealed that debt ratio is positively ($\beta=2.813$) and statistically and significantly (sig-value=0.000) affect profitability of Equity Bank Uganda Limited; debt-equity ratio is positively ($\beta=0.081$) and statistically and significantly (sig-value=0.002) affect profitability of Equity Bank Uganda Limited; and interest coverage ratio is positively ($\beta=0.023$) and does not statistically and significantly (sig-value=0.426) affect profitability of Equity Bank Uganda Limited. The study concluded that debt ratio statistically and significantly affect profitability of Equity Bank Uganda Limited; debt-equity ratio statistically and significantly affect profitability of Equity Bank Uganda Limited and interest coverage ratio does not statistically and significantly affect profitability of Equity Bank Uganda Limited. The study recommended that management should ensure that financial decisions made by them are in consonance with shareholders' wealth maximization objectives; amount of debt finance in the financial mix of the firm should be at the optimal level; management should monitor the interest charged on debt financing to avoid liquidation of the company. Contribution of knowledge was gained from findings whereby this present study has made a significant contribution to knowledge by revealing not just how financial leverage of commercial banks affect their liquidity and efficiency but also return on assets and return on equity and further the implication of such effects; the researcher consider this study as having significantly contributed to knowledge by providing updated empirical evidence (2006-2015) in Uganda to explain the profitability of banks with respect to their financial leverage.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter included background to the study, the problem statement, the purpose of the study, research objectives, the research questions, the scope and the significance of the study.

1.1 Background to the study

1.1.1 Historical perspective

In the quest to optimize their objective, which hinges primarily on quantifiable performance, financial managers have adopted various capital structures as a means to that goal. A firm can finance its investment by debt and/or equity. The use of fixed-charged funds, such as debt and preference capital along with the owner's equity in the capital structure is described as financial leverage or gearing (David and Olorunfemi, 2010). An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt. Financial leverage takes the form of a loan or other borrowing (debt), the proceeds of which are (re)invested with the intent to earn a greater rate of return than the cost of interest.

Financial leverage offers an alternative way to increase profits by financing a portion of the business through loans or by issuing stock. Akhtar, Javed, Maryam and Sadia (2012) indicates that financial leverage does not guarantee an improvement in profitability. All businesses must cope with a degree of uncertainty regarding future sales, but businesses offering new or untested products and services run much higher risks of failure. Consequently, securing financial leverage for such businesses may come at the cost of unfavourable interest rates and higher dividend payments for stockholders, which makes it more difficult to improve profitability. Businesses offering products or services with a demonstrable track record with consumers can often secure financial leverage at more favourable rates.

Rehman (2013) a firm that successfully uses leverage demonstrates by its success that it can handle the risks associated with carrying debt. This can become an important factor when additional financing is needed. Not only will loans more likely be available, but they will be available at more attractive interest rates. Like individuals, companies with solid financials, but little credit history, sometimes have trouble convincing lenders that they are deserving of a good rate.

Leverage allows a greater potential returns to the investor than otherwise would have been available, but the potential loss is also greater: if the investment becomes worthless, the loan principal and all accrued interest on the loan still need to be repaid (Asogwa and Isinguzo, 2017). It is obligatory that every individual organization has to give especial focus towards the most important questions of amount of financial leverage, associated cost of capital and their impact on the firm's profitability (Bhunja, 2012).

In Uganda, Sunday et al., (2017) leverage under financial strategy planning helps to increase the rate of return by generating a greater return on borrowed money than the cost of using that money. If firms return on assets is greater than the before tax interest rate paid on debt then we can say that leverage is positive. Companies that dislike to borrow funds for the financing of their assets have to rely completely on equity financing therefore they are free from any fixed amount of charges to pay which means there is no financial leverage associated with that company.

Equity Bank Uganda Limited (EBUL), is a commercial bank in Uganda. It is licensed by the Bank of Uganda, the central bank and national banking regulator (BOU, 2015). EBUL is a subsidiary of Equity Group Holdings Limited, a financial services conglomerate with headquarters in Kenya and subsidiaries in six countries of the African Great Lakes Region (Ngigi, 2015). The bank provides banking services to individuals and to small and medium business enterprises. As of 31 December 2017, the bank's total assets were valued at UGX:1 trillion (approximately US\$263 million) (Kiggundu, 2018). In December 2017, shareholders' equity in the bank was valued at KSh5 billion (US\$50 million) (Juma, 2018). Equity Bank Uganda Limited was created in 2005 when the Equity Group Holdings Limited purchased Uganda Microfinance

Limited, a Tier II, Ugandan microfinance company for an all-share price of US\$27 million (Nyambura, 2005). Equity Bank (Uganda) launched under its new brand on 30 March 2006 (Nicoline, 2006).

1.1.2 Theoretical perspective

This research work will be anchored on the trade-off theory (Kraus and Litzenberger, 1973) because it proposes that a firm's optimal debt ratio is determined by a trade-off between the costs and benefits of borrowing. This study sought to find the effects of financial leverage on profitability of banks whether positive (benefits), negative (costs) or neutral. Other capital structure theories relevant to this work were also treated below: the irrelevancy theory (Modigliani and Miller, 1958) and the pecking order theory (Donaldson, 1961).

Trade-off theory was postulated by Kraus and Litzenberger (1973). The trade-off theory of capital structure is the idea that a company chooses how much debt equity finance to use by balancing the cost and benefits. The classical version of the hypothesis goes back to Kraus and Litzenberger (1973) who considered a balance between the dead-weight cost of bankruptcy and the tax saving benefits of debt (Frank & Goyal, 2014).

A firm's optimal debt ratio is determined by a trade-off between the bankruptcy cost and tax advantage of borrowing. Mathematically, it is achieved at the point when the marginal present value of the tax on additional debt is equal to the increase in the present value of financial distress costs. Financial distress costs as used in the previous sentence comprises of the costs of bankruptcy, re-organization or agency costs that arise when the firm has low creditworthiness rating.

According to Modigliani and Miller (1958) posited that without taxes and under assumptions of perfect markets, with no capital market frictions (i.e. no transaction costs, asset trade restrictions or bankruptcy costs), symmetric access to credit markets (commercial banks and investors can borrow or lend at the same rate and commercial bank's financial policy reveals no information), each commercial belongs to a risk class set with common earnings, a commercial bank's debt-equity ratio does not affect its

profitability. Therefore, the value of the levered commercial bank is equal to the value of unlevered commercial bank and hence debt-financing decision is therefore irrelevant for its profitability.

The pecking order theory was first suggested by Donaldson (1961) and further developed by Myers and Majluf (1984). It argues that commercial banks have a preferred hierarchy for financing decisions with the highest preference being to use internal financing before resorting to any form of external funds. This is because internal funds of commercial banks incur no flotation costs and require no additional disclosure of financial information that may lead to low financial performance (Mwangi, 2017). Castro, Tascón and Amor-Tapia (2012) also contend that this hierarchy is necessary in order to minimize commercial bank's adverse selection costs of security issuance as a result of the existence of asymmetric information.

1.1.3 Conceptual perspective

Abor (2005) defines financial leverage as the amount of debt that an entity uses to buy more assets. Financial leverage is employed to avoid using too much equity to fund operations. Financial leverage refers to the extent to which firms make use of their money, borrowings (debts financing) to increase profitability and is measured by total liabilities to equity. Financial leverage refers to the proportion of debt to equity in the capital structure of a firm. Financial leverage is viewed as a result of events that determines companies' source of financing to run the business (Alkhatib, 2012). Operationally, financial leverage mean debt ratio, debt to equity ratio and interest coverage ratio.

Penman (2007) defines profitability as the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. Profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit. Profitability is 'the ability of a given investment to earn a return from its use (Srivastava & Srivastava, 2006). Profit maximization is said to be the main objective of all firms. In

a competitive marketplace, a business owner must learn to achieve a satisfactory level of profitability. Increasing profitability involves determining which areas of a financial strategy are working and which ones need improvement.

Subedi and Maheshwari (2007) explains that profitability is the final measure of economic success achieved by a company in relation to the capital invested. This economic success is determined by the magnitude of the net profit. To achieve an appropriate return over the amount of risk accepted by the shareholders is the main objective of companies operating in capitalist economies. After all, profit is the propulsive element of any investments in different projects. The assessment of profitability is usually done through the Return on Assets (ROA) which equals to Net Income divided by Total Assets and ROE (Return on Equity) that is equal to Net Income divided by Equity, which is the ultimate measure of economic success.

Operationally, profitability included Return on Assets (ROA) and ROE (Return on Equity).

1.1.4 Contextual perspective

In Equity bank Uganda limited, profitability is one aspect that has not been given the attention it deserves. The bank have a difficult task for bank managers to ensure that banks operate on the optimal mix of equity and debt and due to this, Equity bank had continuously used debt financing in financing its assets, which had created some level of financial risk (Equity Bank Annual Report, 2017). This has directly affected its capital and financial structure/leverage. Majorly Equity bank finance its overall operations and growth by using long-term debt and short-term debt that takes long to be recovered and at times fall bad debts and this have not yielded higher profits (Musa, 2014).

1.2. Statement of the problem

An important financing decision that firms must take is to decide the proportion of debt and equity that will constitute their capital structure. It is usually a difficult task for bank managers to ensure that banks operate on the optimal mix of equity and debt. They are in constant struggle of ensuring the adequate sources of long-term

financing that will maximise the wealth of shareholders (Njeri and Kagiri, 2013). Equity bank had continuously used debt financing in financing its assets, which had created some level of financial risk, and this is directly related to the firm's capital and financial structure/leverage (Equity Bank Annual Report, 2017). Equity bank finance its overall operations and growth by using long-term debt and short-term debt and this have not yielded higher profits (Equity Bank Annual Report, 2017). This is because the long-term debt and short-term debt granted by the bank takes long to be recovered and at times fall bad debts and this finally had affected bank's profitability (Musa, 2014). This has influenced the researcher to conduct a study on financial leverage and profitability of banks.

1.3 Purpose of the study

The purpose of the study was to investigate the relationship between financial leverage and profitability of Equity Bank Uganda Limited.

1.4 Research objectives

- (i) To examine the effect of debt ratio on profitability of Equity Bank Uganda Limited.
- (ii) To determine whether debt-equity ratio have any effect on profitability of Equity Bank Uganda Limited.
- (iii) To establish if there is any effect of interest coverage ratio on profitability of Equity Bank Uganda Limited.

1.5 Research questions

- (i) What is the effect of debt ratio on profitability of Equity Bank Uganda Limited?
- (ii) What is the effect of debt-equity ratio on profitability of Equity Bank Uganda Limited?
- (iii) What is the effect of interest coverage ratio on profitability of Equity Bank Uganda Limited?

1.6 Hypotheses

H₀₁: There is no significant effect of debt ratio on profitability of Equity Bank Uganda Limited.

H₀₂: There is no significant effect of debt-equity ratio on profitability of Equity Bank Uganda Limited.

H₀₃: There is no significant effect of interest coverage ratio on profitability of Equity Bank Uganda Limited.

1.7 Scope of study

1.7.1 Geographical scope

The study was carried out in Equity Bank Uganda Limited. Equity Bank Uganda Limited has its headquarters in Uganda's capital city, Kampala. It is located at Plot 390 Muteesa 1 Road, Kampala.

1.7.2 Content scope

In terms of content, financial leverage (independent variable) was conceptualized in terms of debt ratio, debt-equity ratio and interest coverage ratio. Dependent variable (profitability) was measured in terms of return on equity and return on assets.

1.7.3 Time scope

This study was conducted from March 2018 to June, 2018, whereby proposal writing took place from March 2018 to April 2018, data collection and analysis was done in May 2018, and then the final report was written and submitted in June 2018.

1.8 Significance of the study

The study was relevant to certain groups of people. They include:

Finance Managers: This study will act as a policy guideline to finance managers involved in managing firms on the contribution of financial leverage and its association

with return on equity to maximize shareholder wealth. It will aid decision-making relating to the proper mix between debt and equity that will be of advantage to the firm. This will in turn establish a proper financial planning that will bring about improvement in the overall rate of return of the firm since cost of debt capital is lower than that of equity.

Policy Makers: Policy makers in the industry would be able to formulate appropriate debt and profitability management policy that would put the company above others in the same industry because the use of debt increases the earnings on equity capital as long as the rate of return on the firm's investment exceeds the explicit cost of financing the investment.

Academic Community: The study would add more updated empirical evidence to existing financial literature in Nigeria regarding relationship between financial leverage and corporate performance and would be of great benefit to the academic field as it will serve as a reference point for students and future researchers who will want to research more on the topic.

1.9 Operational definition of key terms

Debt ratio; is a solvency ratio that measures a firm's total liabilities as a percentage of its total assets. This ratio measures the financial leverage of a company. Companies with higher levels of liabilities compared with assets are considered highly leveraged and more risky for lenders.

Debt to equity ratio; is a financial, liquidity ratio that compares a company's total debt to total equity. The debt to equity ratio shows the percentage of company financing that comes from creditors and investors.

Interest coverage ratio; is a financial ratio that measures a company's ability to make interest payments on its debt in a timely manner.

Return on assets (ROA): A firm's net income divided by total assets or the amount earned on each dollar of assets invested.

Return on equity (ROE) is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the company. In other words, the return on equity ratio shows how much profit each dollar of common stockholders' equity generates.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presented different subjects that included concept of financial leverage, theoretical review, conceptual framework, profitability, literature review and research.

2.1 Theoretical review

This research work was anchored on the trade-off theory because it proposes that a firm's optimal debt ratio is determined by a trade-off between the costs and benefits of borrowing. This study sought to find the effects of financial leverage on profitability of banks whether positive (benefits), negative (costs) or neutral. Other capital structure theories relevant to this work were also treated below: the irrelevancy theory and the pecking order theory.

2.1.1 Trade-off theory

This theory was postulated by Kraus and Litzenberger (1973). The trade-off theory of capital structure is the idea that a company chooses how much debt equity finance to use by balancing the cost and benefits. The classical version of the hypothesis goes back to Kraus and Litzenberger (1973) who considered a balance between the dead-weight cost of bankruptcy and the tax saving benefits of debt (Frank and Goyal, 2014).

A firm's optimal debt ratio is determined by a trade-off between the bankruptcy cost and tax advantage of borrowing. Mathematically, it is achieved at the point when the marginal present value of the tax on additional debt is equal to the increase in the present value of financial distress costs. Financial distress costs as used in the previous sentence comprises of the costs of bankruptcy, re-organization or agency costs that arise when the firm has low creditworthiness rating.

The trade-off theory says that the firm will borrow up to the point where the marginal value of tax shields on additional debt is just offset by the increase in the present

value of possible cost of financial distress. The value of the firm will decrease because of financial distress (Myers, 2001). The theory also weights the benefits of debt that result from shielding cash flows from taxes against the costs of financial distress associated with leverage. It claims the total value of a levered firm equals the value of the firm without leverage plus present value tax savings from debt, less the present value of financial distress costs. The theory assumes that a firm has an optimum capital structure based on trade-off between costs and benefits of using debt. However, Mule and Mukras (2015) argued that this theory does not explain the conservative nature of firms when using debt finance and the consistency of leverage in most countries despite divergent taxation systems.

2.1.2 Irrelevancy theory

This proposition was advanced by Modigliani and Miller (1958). According to Rodrigo (2015), the Miller and Modigliani capital structure of a firm is irrelevant to the firm's current investment and financing decisions. The theory is based on the assumption that markets are efficient, investors neither incur transaction costs nor pay taxes when buying and selling securities. In addition, there are no information asymmetries between shareholders and managers (Myers and Brealey, 2002). The capital structure of a firm is the mix of equity and debt that the company uses to finance its investments (Aggarwal, Drake, Kobor and Noronha, 2011). The objective of the firm is to figure out the financial leverage or capital structure that minimises the weighted average cost of capital (WCC) so as to maximise the value of the firm.

If a firm uses cheaper debt, the risk of the firm will increase and consequently the stock holders will demand higher dividend to compensate them for the high risk in their investments (Mule and Mukras, 2015). Modigliani and Miller theorized that the market value of a firm is determined by its ability to earn and the risk of its underlying assets. Thus the weighted average cost of capital should remain constant. They also argued that the value of a firm is not affected by capital structure but by the earning ability of the assets. The assumptions of this theory however, do not hold in the real world since perfect markets do not exist.

2.1.3 Pecking order theory

According to De Miguel and Pindado (2001) the theory was first suggested by Donaldson in 1961 and further developed by Myers and Majluf (1984). The pecking order theory posits that financing can be obtained from three different sources which are: internal funding which is the least expensive, debt financing, which is more expensive and external equity sources which is the most expensive of all. Gweyi and Karanja (2014) state that firms would rather have their source of funds raised internally as their first choice, the second choice would be through raising debts from external sources, and the last choice would be through external equity. It is also argued that the standard pecking order is a special case of adverse selection. When there is adverse selection about firm value, firms prefer to issue debt over outside equity and standard pecking order models apply. This theory explains why internal finance is more popular than external finance and why debt is considered the best option for firms. Debt finance is considered attractive, cheap and more profitable as it is considered flexible.

The pecking order theory states that financial oriented companies would not opt for debt financing for their new projects because of the availability of sizeable amounts of internal funds (Jalal, 2007). Unlike static trade-off theory, which emphasises that financially sound companies would give preference to the use of debt financing in view of the attraction of tax shield benefit available on borrowed funds. The static trade off theory predicts a direct relationship between profitability and leverage while the pecking order theory expects an inverse-relationship between them (De Jong, Verbeek and Verwijmeren, 2011). The static trade-off theory postulates that larger size companies have a higher preference for debt financing because of a lower probability of bankruptcy due to their tendency for diversification (Gatsi et al, 2013).

2.2 Concept of financial leverage

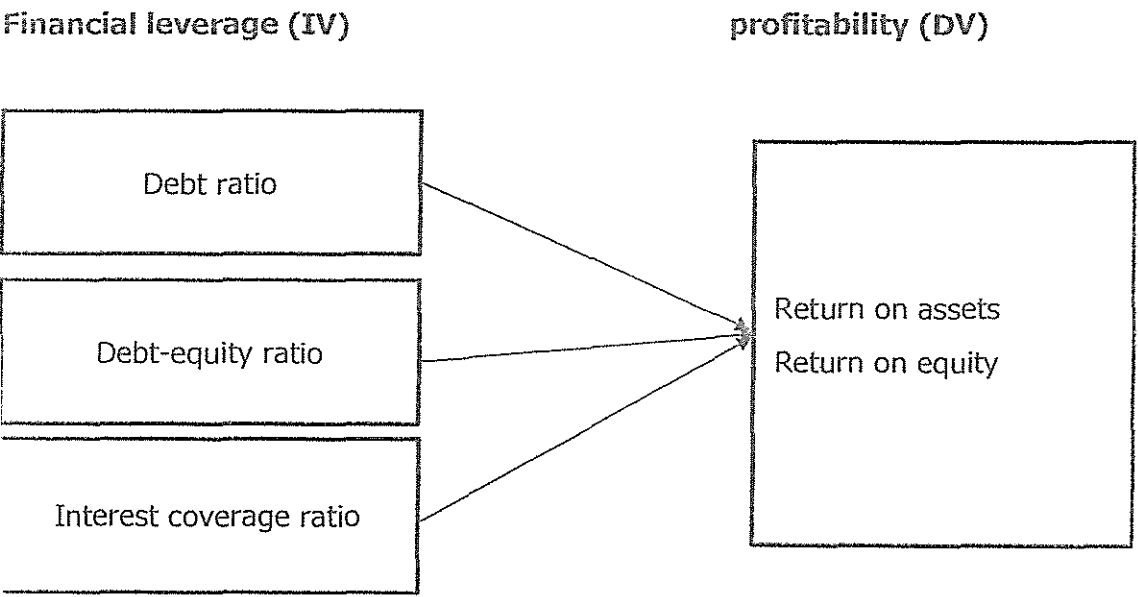
Financial leverage is a measure of how much firm uses equity and debt to finance its assets. It takes the form of a loan or other borrowing (debt), the proceeds of which are re-invested with the intent to earn a greater rate of return than cost of interest.

Financial leverage is the use third party funds in financing in order to increase operating profit and taxes, which is loans ratio to total liabilities. It is the firm's ability to use fixed financial charges to magnify the effects of changes in the earnings before interest and tax on the firm's earnings per share (Abdul & Adelabu, 2015).

Pandey (2010) states that financial leverage occurs when there are no fixed financial charges (interest and preference dividend). Firms are either levered or unlevered. An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt (Chui, Lloyd and Kwok, 2002). As debt increases, financial leverage increases.

2.3 Conceptual framework

Figure 2.1: Conceptual framework of financial leverage and profitability



Source: Pandey (2010)

2.3.1 Debt ratio

Ezeamama (2010) states that debt ratio (DR) measures the amount of the total funds provided by creditors in relation to the total assets of the firm. This is measured by the total debt to total assets and is a proxy to leverage.

Debt ratio = Total debt/Total Assets. The formula is given below as the ratio of Total debt to Total Assets

Enekwe, Agu and Eziedo (2014) say it is assumed that when external funds are borrowed, example, from banks at a fixed rate, they can be invested in the company and gain a higher invested paid to the bank. This is measured by the total debt to total assets and is a proxy to leverage. Debt ratio = Total debt /Total Assets

2.3.2 Debt-equity ratio

Enekwe, Agu and Eziedo (2014) posits that debt to equity ratio is a financial ratio indicating the relative proportion of equity and debt used to finance a company's assets which is an indicator of the financial leverage. Nwude (2003) defines debt to equity ratio as a measure of the proportion of debt to shareholders funds (Net Worth) in the total financing of a business. The ratio indicates how much naira was raised as debt per naira of equity. Debt-equity ratio has implications for the shareholders' dividends and risk, this affect the cost of capital and the market value of the firm (Pandey, 2010).

Nwude (2003) defines debt to equity ratio as a measure of the proportion of debt to shareholders funds (i.e Net Worth) in the total financing of a business. Items such as accumulated losses and deferred expenditures are eliminated from the shareholders' funds before using it as the denominator. The ratio indicates how much naira was raised as debt for N1 of equity. Enekwe, Agu and Eziedo (2014) continues that debt to equity ratio is a financial ratio indicating the relative proportion of equity and debt used to finance a company's assets which is an indicator of the financial leverage. It is equal to total debt divided by shareholders' equity. The two components are often taken from the firm's statement of financial position (Balance Sheet). When used to calculate a company's financial leverage, the debt usually includes only the total debt. This is a useful measure as it helps the investor see the way management has financed operations. A high debt to equity ratio generally means that a company has been aggressive in financing its growth with debt. This can result volatile earnings as a result of the additional interest expenses as well as volatile cash flow as principal

payments on debt come due. If a lot of debt is used to finance increased operations (high debt to equity), the company could potentially generate more earning per share than it would have without this outside financing. If this were to increase earning by a greater amount than the interest on debt, then the shareholders benefit as more earning are being spread among the same amount of stock. However, as stated increased interest and the need to repay the principal on borrowed fund can for outweigh the benefit, it is used to measure the net worth of the organization.

Debt to equity ratio = $\frac{\text{Total Liabilities}}{\text{Shareholder's Funds or Total equity}}$

This is one of the most important metrics to measure and manage as you create strategic plans.

2.3.3 Interest coverage ratio

This measure of financial leverage is also commonly known as coverage ratio. It indicates the capacity of a firm to meet fixed financial charges. Interest coverage ratio is a ratio that recognizes that many firms lease assets and incur long-term obligations under lease contracts for the payment of lease premium (Ezeamama, 2010). Pandey (2010) states that it indicates the ratio of net operating income (or EBIT) to interest charges. Investors usually have an idea of financial risk of a firm by comparing the coverage ratios of similar firms with an accepted industry standard, the investors.

Ezeamama (2010) defines interest coverage ratio as a ratio similar to time interest earned ratio, but it is more inclusive in that it recognizes that many firms lease assets and incur long-term obligations under lease contracts for the payment of lease premium. Nowadays, leasing is becoming widespread in financing business; this ratio is preferable to the time interest earned ratio for making financial analysis.

Pandey (2010) indicates the ratio of net operating income (or EBIT) to interest charges i.e, Interest coverage ratio = $\frac{\text{EBIT}}{\text{Interest charges}}$

Pandey (2010) continues that these relationships indicate that both these measures of financial leverage will rank companies in the same order. However, the first measure

(Total debt/Total Assets) is more specific as its value ranges between zeros to one. The value of the second measure (ie total debt/shareholder funds or total equity) may vary from zero to any large number. The debt-equity ratio, as a measure of financial leverage, is more popular in practice. There is usually an accepted industry standard to which the company's debt-equity ratio is compared. The company will be considered risky if its debt-equity ratio exceeds the industry standard. The first two measures of financial leverage (debt ratio and debt to equity ratio) are also measures of capital gearing. They are static in nature as they show the borrowing position of the company at a point of time. These measures, thus, fail to reflect the level of financial risk, which is inherent in the possible failure of the company to pay interest and repay debt. The third measure of financial leverage (interest coverage ratio) commonly known as coverage ratio, indicates that capacity of the company to meet fixed financial charge. The reciprocal of interest coverage, that is, interest divided by EBIT, is a measure of the firms' income gearing. Again by comparing the companies coverage ratio with an accepted industry standard, the investors, can get an idea of financial risk.

2.4 Profitability

Profitability is generally defined as an organization's ability to earn financial profit or gain (Tauringana and Afrifa, 2013). The success and growth of any business substantially depend on its profitability (Onwumere, Ibe & Ugbam, 2012). Here, one can deduce that the long-term survival of a firm is very much dependent on its profitability. A firm's net profit is the difference between the revenue and all its operating expenses (Oladipupo & Okafor, 2013). The key goal of any commercial entity is profit (Al-Debi'e, 2011). The main point here is that, without making a profit, the business is likely to collapse at some point (Tauringana & Afrifa, 2013). This then underlines the importance of profitability in a commercial entity. According to Mathuva (2010), although present profitability of an organization may be good, opportunities for growth should always be explored, since this offers opportunities for greater overall profitability and keeps or moves the corporation into the line of sight of analysts and potential or current investors. A further interesting point is made by Al-Mwalla (2012) who argues that an understanding of a firm's present profitability position is the key to the development of an effective growth strategy. Supporting this proposition,

Oladipupo and Okafor (2013), as well as Mathuva (2010) underscore that it is imperative for a firm to identify and enhance the drivers of its profitability if it hopes to successfully achieve its goals.

2.4.1 Return On Assets

Enekwe, Agu and Eziedo (2014) opines that return on assets (ROA) was used as dependent variables, because it is an indicator of managerial efficacy. Lazaridis and Trynidis (2006), Delof (2003), Falope and Ajilore (2009), Singh and Pandey (2008) and Karaduman et al., (2011) agrees that the formula for return on Assets (ROA) is expressed as Profit before tax /Total Assets

The return on asset ratio (ROA) indicates the business's effectiveness in generating profits from its available assets and is literally used to assess the profit-earning performance of the business's assets. It relates the net profit after tax in income statement to the assets in the business's balance sheet. A high ratio on return on asset shows effective management and good opportunities for future business growth and therefore, ROA reflects "Operating Decisions" over buying, selling, expense control and asset management which should always be examined in conjunction with the gross profit margin and net profit margins (Gitman, Juchau and Flanagan, 2015). Enekwe, Agu and Eziedo (2014) says that return on assets (ROA) is a dependent variable. It is the quotient of dividing profit after tax by total assets. Emekekwe (2008) sees return on assets (ROA) as a ratio which seeks to measure the amount of profit generated from the entire assets of the firm. It is expressed as Profit before tax /Total Assets

2.4.2 Return On Equity

Higgins (2012) contend that the return on equity ratio or ROE is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the company. In other words, the return on equity ratio shows how much profit each dollar of common stockholders' equity generates. So a return on 1 means that every dollar of common stockholders' equity generates 1 dollar of net

income. This is an important measurement for potential investors because they want to see how efficiently a company will use their money to generate net income.

ROE is also an indicator of how effective management is at using equity financing to fund operations and grow the company. According to Damodaran (2007), return on equity measures the return the business earned on its owner's investment in the business.

2.5 Empirical review

2.5.1 Relationship between debt ratio and profitability

Anarfo and Appiahene (2017) investigate the effects of capital structure on profitability using 100 Iranian listed firms from 2001 to 2007. They found short-term and total debts are positively related to profitability (ROE) which indicate a negative relation between long-term debts and ROE. Huang and Song (2004) studies on Chinese companies found a negative relationship between long-term debt and return on assets, as well as between all the liability and return of assets.

Salim and Yadav (2012) suggest corporations with high level of profitability use high level of debts. Abor (2005) reports a positive relation between capital structure, which measured by STD and TD, and performance over the period 1998-2002 in the Ghanaian firms. Bhardwaj (2018) found a significantly positive association between profitability and debt ratios in a study designed to investigate the relationship. Musah (2017) argues that profitable firms are more attractive to financial institutions as lending prospects. The reason is that, those firms are expected to have higher tax shields and low bankruptcy costs. Furthermore, Bibi and Amjad (2017) has reported a significantly positive relationship between the ratios of short term debt to total assets & profitability but a negative association between the ratio of long term debt to total assets and profitability.

Vieira (2017) found out that debt contributes negatively to firms' performance, which is consistent with the pecking order prediction, and that the relationship between debt and performance do not differ significantly between firms.

A study by Saedi and Mahmoodi (2011) examines the relationship between capital structure and firm performance. The study used a sample of 320 firms listed on Tehran Stock exchange over the period 2002-2009. Except all of the financial companies and banks, the study uses four performance measures (including ROA, ROE, EPS and Tobin's Q) as dependent variable and three capital structures (including long-term debt short term debt and total debt ratio) as independent variable. The study indicated that firm performances, which is measured by EPS and Tobin's Q, is significantly and positively associated with capital structure, while reported a negative relation between capital structure and ROA, and no significant relationship between ROE and Capital structure.

The study conducted by Bui (2017), investigated the effects of debt ratios on the firm performance through employing a data of 99 financial statements of 18 British Gas and Oil companies from 2009 to 2014. There were two dependent variables used in this research including ROA (return on assets), ROE (return on equity), while three independent variables were STD (short term debt to total asset), LTD (long term debt to total asset), TD (total debt to total asset). Besides, the author also used one control variable which is GROWTH (growth of assets). The result revealed that there were strong negative impacts of financial leverage measured by LTD and TD on performances of ROA and ROE, while STD had insignificant effects on ROA and ROE of these firms. Based on the results, the firms having high level of long term debt and total debt tend to show poorer performance of return on assets and return on equity.

2.5.2 Relationship between debt-equity ratio and profitability

Abubakar (2015) examines the relationship between financial leverage and financial performance, evidence from fuel and energy sector of Pakistan. The result shows that there is a general perception that a relationship exists between the financial leverage and the performance of the companies' i.e most of the financial performance indicators have positive relationship among leverage and the financial performance when compare with debt to equity ratio while the gearing ratio indicates negative relationships with the leverage indicators. The gearing ratio also takes into account the effect of capital with return numerator which not only accommodates the debt but

also the outstanding shares of preferred stock. The result adds that gearing ratio may differ from that of debt to equity ratio while debt equity ratio takes into account the long term debt. Rehman (2013) studies the relationship between financial leverage and financial performance in listed sugar companies of Pakistan. The results shows positive relationship of debt equity ratio with return on asset and sales growth, and negative relationship of debt equity ratio with earning per share, net profit margin and return on equity. This negative relationship between debt equity ratio and earnings per share (EPS) support the fact that as debt increases, the interest payment will also rises, so EPS will decrease.

Hovakimian and Tehranian (2004) concluded that the importance of stock returns in studies of corporate financing choices is unrelated to target leverage and is likely to be due to the correlation between Pecking order theory and Market timing behavior theory. This study also found that profitability has no effect on target leverage. Unprofitable firms issue equity to offset the excess leverage due to accumulated losses. A study conducted by Joh (2003) found out that the combination of high debt-equity ratios produced low profitability which was not sustainable. Alcock et al., (2013) examines the role of financial leverage in the performance of private equity real Estate funds. The results indicates that funds overall are unable to deliver significant positive out performance on the basis of managerial skill that is unrelated to the exposure to the variation in the underlying market return.

A study conducted by Muritala (2018) found negative relationship between ROA and debt ratio at 1% level. Further, Abel (2018) found a negative relationship between profitability and leverage and this was found empirically.

Thaddeus and Chigbu (2012) studied the effect of financial leverage on bank performance using six banks from Nigeria. The study made use of secondary data from Nigerian Stock Exchange fact book and the financial statements of the sampled banks. Debt-equity and coverage ratios were used to measure financial leverage which was the independent variable, while earning per share (EPS) represented performance as the dependent variable. Multiple regression technique was used to establish whether relationship exist between financial leverage and performance of sampled

banks. The findings showed mixed results. While some banks reported positive relationship between leverage and performance, others revealed negative relationship between leverage and performance.

2.5.3 Relationship between interest coverage ratio and profitability

Haung and song (2006), found a negative correlation between leverage and performance (earning before interest and tax to total assets is China firms). Chakraborty (2010) employed two performance measures, including ration of profit before interest, tax and depreciation to total assets and ratio of cash flows to total assets and two leverage measures, including ration of total borrowing to assets and ratio of liability and equity, and reported a negative relation between these ones. Mburu (2017) examined the effect of capital structure to the company's financial performance of listed banking institutions in Nairobi Securities Exchange. The study determined whether capital structure have effect on financial performance of the firm by considering the debt, leverage risk, debt equity ratio and interest rates and how they are related to Return on Equity (ROE), Return on Assets (ROA), Gross Profit Margin and Net Profit Margin (NPM) at determined significant level. Data were also collected using questionnaires administered to the management of the selected banks and analysed with correlation and multiple regression statistical technique. The study targeted thirty five respondents but managed to obtain responses from thirty of them thus representing 86% response rate. The findings indicated that debt had a coefficient of 0.747; leverage risk had a coefficient of 0.751, interest rate had a coefficient of 0.781, and debt-equity proportion had a coefficient of 0.791.

Enekwe, Agu and Eziedo (2014) determined the effect of financial leverage on financial performance of the Nigeria pharmaceutical companies over a period of twelve (12) years (2001-2012) for the three companies. This work employed three financial leverage ratios for the independent variable which were: debt ratio (DR); debt-equity ratio (DER) and interest coverage ratio (ICR). Financial performance on the other hand was measured using Return on Assets (ROA). The ex-post facto research design was used for this study. Secondary data were obtained from the financial statements of the selected pharmaceutical companies' quoted on the Nigerian Stock Exchange

(NSE). Descriptive statistics, Pearson correlation and regressions were employed and used for this study. The results of the analysis showed that debt ratio (DR) and debt-equity ratio (DER) have negative relationship with Return on Assets (ROA) while interest coverage ratio (ICR) has a positive relationship with Return on Assets (ROA) in Nigeria pharmaceutical industry.

In a study conducted by Kumar (2017) on the relationship between degree of financial leverage and earnings per share of two leading Indian steel companies-Steel Authority of India Limited, and Tata Steel Limited for a period since 2006-07 to 2014-15, found a negative correlation between degree of financial leverage and earnings per share in SAIL, whereas no relationship was found between degree of financial leverage and earnings per share in Tata Steel Limited.

2.6 Research gaps

Although banks are different from other corporate entities, they are still faced with the similar challenge of choosing the optimal capital structure that would minimize the cost of capital and increase profits. It is apparent from the existing literature that many surveys are either deficient of adequate variables or the scope of study is wanting. According to surveys of Perinpanathan (2014) and Khan, Ur-Rehman, & Dodhy, (2013) conducted their studies by relating the impact of financial leverage and financial performance and none of these was conducted purely on profitability. Further, these studies were conducted in holdings company (Perinpanathan, 2014) and Oil and Gas Sector (Khan et al., 2013). In view of the foregoing, this study therefore will try to address some of these deficiencies. Perinpanathan (2014) study was intended to test the hypothesis and to measure a relationship between the financial leverage and the financial performance of the John Keells Holdings PLC in Sri Lanka during the periods of 2006-2012. Whereas Khan et al., (2013) the study emphases was on effect of financial leverage on firm's efficiency of quoted oil and gas sector in Pakistan over the period of 2007 to 2011. This period was not enough to base the valid conclusions, therefore this study with fill the gaps by considering more years.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter summarized the methodology that was adopted by the study; it consisted of research design, target population, method of data collection, method of data analysis, model specifications and ethical considerations.

3.1 Research design

The research was carried out using the ex post facto research design technique. The ex-post facto research design seeks to retrieve and study data for events which have already occurred (Simon and Goes, 2013). It is also known as “after the fact” research design because it is a method in which groups that already exist are compared on some dependent variables. Testing the reliability and validity of the data was deemed unnecessary since the data has been published and thus seen as certified by external auditors.

3.2 Nature and source of data

The researcher used only secondary data that were extracted from the Annual Reports and Statements of Account (Statement of Comprehensive income and Statement of Financial Position) of Equity Bank Uganda Limited. These reports are from a reliable source, which is the company’s website for the period of ten years from 2006 to 2015. The source of data is <https://www.equitybankgroup.com/index.php/files/download>.

3.3 Method of data analysis

Descriptive analysis was firstly applied to describe relevant aspects of financial leverage and provided detailed information about each relevant variable. Correlation models, specifically Pearson correlation was applied to measure the degree of association between different variables under consideration and to achieve the purpose of the study.

Regression analysis was applied to examine the effect of independent variables on dependent variable and to achieve the objectives of the study. By using this method, researcher was able to identify the significant of each explanatory variable to the model and also the significance of the overall model. The model used was simple regression. The researcher also used p-value for the test of hypotheses. The decision was to reject the null hypothesis if the p-value is less than 0.05, and accept otherwise.

Table 3.1: Measurement of variables

The variables chosen were calculated thus:

No	Variables	Method used for Calculation
1	Debt Ratio (DR)	Total Liabilities/Total Assets
2	Debt Equity Ratio (DER)	Total Liabilities/Shareholders' Funds or Total Equity
3	Interest Coverage Ratio (ICR)	Earnings before interest and tax/Interest expense
4	Return on Assets (ROA)	Net Income/Total Assets
5	Return on Equity (ROE)	Net Income/Total Equity

3.4 Model Specifications

The choice of ordinary least squares (OLS) for this research work was guided by the fact that its computational procedure is simple and the estimates obtained from this procedure have optimal properties which include: linearity, Unbiasedness, Minivariance and Mean square error estimation (Koutsoyianis, 2003). In carrying out this research study on the effect of financial leverage on profitability, the model was developed as follows:

$$(ROA)_t = \beta_0 + \beta_1(DR)_t + \beta_2(DER)_t + \beta_3(ICR)_t + \varepsilon_i$$

$$(ROE)_t = \beta_0 + \beta_1(DR)_t + \beta_2(DER)_t + \beta_3(ICR)_t + \varepsilon_i$$

Where;

ROA = Return on Assets

ROE = Return on Equity

DR = Debt Ratio for bank in year t

DER = Debt-Equity-Ratio for bank in year t

ICR = Interest Coverage Ratio for bank in year t

ε_i = Error term

β_0 = the constant whose influence on the model is insignificant

β_1 = the slope which represents the degree with which profitability change as the financial leverage change by one unit

3.5 Ethical considerations

Equity Bank Uganda Limited's panel data collected was only used for research purposes. The researcher acknowledged the authors quoted in her study through citations and referencing.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

From this chapter the researcher presented, interpreted and analyzed the findings according to the research objectives of the study by using tables to present and analyze the findings. The study investigated panel data that was collected from Equity Bank Uganda Limited's annual reports for ten years (2006-2015). The chapter was divided into four major sections of descriptive statistics, regression analysis, correlation analysis and hypotheses testing.

4.2 Descriptive statistics on research variables

This section discusses the descriptive statistics on research variables from Equity Bank Uganda Limited's panel data analysed for ten-year period. The descriptive statistics for dependent variable that is profitability and the independent variable that is financial leverage are indicated in the table 4.1;

Table 4.1: Descriptive statistics on research variables

	N	Minimum	Maximum	Mean	Std. Deviation
Debt Ratio	10	.7190	.8901	.805310	.0473405
Debt Equity Ratio	10	2.5581	8.1018	4.446180	1.5069021
Interest Coverage Ratio	10	2.5305	8.6850	4.118790	1.7575312
Return on Assets	10	.0501	.0985	.082260	.0133905
Return on Equity	10	.1783	.6855	.450580	.1339644
Valid N (listwise)	10				

Table 4.1 indicate a summary of descriptive statistics of the constructs of dependent and independent variables used in the study. Descriptive statistics show the mean of debt ratio, debt-equity ratio and interest coverage ratio as 0.805310, 4.446180 and 4.118790 respectively. The mean of Return on Assets (ROA) and Return on Equity

(ROE) are approximately 0.082260 and 0.450580 respectively. This implies that Equity Bank Uganda Limited use debt ratio, debt-equity ratio and interest coverage ratio in achieving its profitability constructs of return on assets and return on equity.

4.3 Effect of debt ratio on profitability of Equity Bank Uganda Limited

The regression results shown in table 4.2A, 4.2B and 4.2C, below indicate the effect of debt ratio on profitability of Equity Bank Uganda Limited.

Table 4.2 A: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.938 ^a	.881	.866	.05197

a. Predictors: (Constant), Debt Ratio

From table 4.2A, results indicate that $R^2 = 0.938$, therefore, debt ratio contribute towards profitability of Equity Bank Uganda Limited by 93.8% (0.938×100).

Table 4.2 B: Analysis Of Variance (ANOVA^a)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.160	1	.160	59.093	.000 ^b
	Residual	.022	8	.003		
	Total	.181	9			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Debt Ratio

From table 4.2B, results indicated that the sig-value of debt ratio is 0.000. This value is less than the level of statistical significance of 0.05. This implies that the regression analysis of debt ratio statistically and significantly affect profitability of Equity Bank Uganda Limited.

Table 4.2 C: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.733	.295		-5.870	.000
Debt Ratio	2.813	.366	.938	7.687	.000

a. Dependent Variable: Profitability

The results in table 4.2C, indicated that debt ratio is positively ($\beta=2.813$) and statistically and significantly (sig-value=0.000) affect profitability of Equity Bank Uganda Limited. The sig. value of debt ratio is 0.000 and this is less than the level of statistical significance value of 0.05. This implies that debt ratio significantly affect Equity Bank Uganda Limited's profitability. This further implies that an increase in debt ratio increases profitability of Equity Bank Uganda Limited and a decrease in debt ratio decreases profitability of Equity Bank Uganda Limited.

4.4 Effect of debt-equity ratio on profitability of Equity Bank Uganda Limited

The effect of debt-equity ratio on profitability of Equity Bank Uganda Limited is indicated by the regression results shown in table 4.3A, 4.3B and 4.3C.

Table 4.3 A: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857 ^a	.735	.702	.07751

a. Predictors: (Constant), Debt Equity Ratio

From the table 4.3A, $R^2 = 0.857$, therefore, debt-equity ratio account for 85.7% (0.857×100) of the variance in profitability of Equity Bank Uganda Limited. This implies that debt-equity ratio contribute towards profitability of Equity Bank Uganda Limited by 85.7%.

4.5 Effect of interest coverage ratio on profitability of Equity Bank Uganda Limited

The regression results shown in table 4.4A, 4.4B and 4.4C, below indicate the effect of interest coverage ratio on profitability of Equity Bank Uganda Limited.

Table 4.4 A: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.284 ^a	.081	-.034	.14431

a. Predictors: (Constant), Interest Coverage Ratio

From table 4.4A, $R^2 = 0.284$, therefore, interest coverage ratio contribute towards profitability of Equity Bank Uganda Limited by 28.4%.

Table 4.4 B: Analysis Of Variance (ANOVA^a)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.015	1	.015	.702	.426 ^b
	Residual	.167	8	.021		
	Total	.181	9			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Interest Coverage Ratio

From the table 4.4C, the sig-value of interest coverage ratio is 0.426. This value is greater than the level of statistical significance of 0.05 and this implies that interest coverage ratio does not statistically and significantly contribute towards profitability of Equity Bank Uganda Limited.

Table 4.4 C: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.438	.122		3.604	.007
1 Interest Coverage Ratio	.023	.027	.284	.838	.426

a. Dependent Variable: Profitability

The results in table 4.4C, indicated that interest coverage ratio is positively ($\beta=0.023$) and does not statistically and significantly (sig-value=0.426) affect profitability of Equity Bank Uganda Limited. The sig. value of interest coverage ratio of 0.426 is greater than the level of statistical significance value of 0.05. This implies that interest coverage ratio does not significantly affect profitability of Equity Bank Uganda Limited. However, this indicates that an increase in interest coverage ratio increases profitability of Equity Bank Uganda Limited whereas a decrease in interest coverage ratio decreases profitability of Equity Bank Uganda Limited.

4.6 Hypotheses testing

The decision rule was to reject the null hypothesis if the p-value (sig. value) obtained using SPSS is less than 0.05. However, if otherwise, then do not reject the null hypothesis.

H₀₁: There is no significant effect of debt ratio on profitability of Equity Bank Uganda Limited. The researcher rejected the null hypothesis because the sig-value of 0.000 of debt ratio and profitability is less than level of significance of 0.05.

H₀₂: There is no significant effect of debt-equity ratio on profitability of Equity Bank Uganda Limited. The researcher rejected the null hypothesis because the sig-value of 0.002 of debt-equity ratio and profitability is less than level of significance of 0.05.

H₀₃: There is no significant effect of interest coverage ratio on profitability of Equity Bank Uganda Limited. The researcher accepted the null hypothesis because the sig-value of 0.426 of interest coverage ratio and profitability is greater than level of significance of 0.05.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discussed and gave conclusion to the major findings of the study in accordance to the research objectives of the study. The researcher further presented recommendations for the study, contribution to the knowledge and areas for future research.

5.2 Discussion of findings

5.2.1 Effect of debt ratio on profitability of Equity Bank Uganda Limited

The study found out that debt ratio is positively ($\beta=2.813$) and statistically and significantly (sig-value=0.000) affect profitability of Equity Bank Uganda Limited. This was in agreement with view of Anarfo and Appiahene (2017) who found out that short-term and total debts are positively related to profitability (ROE). This was further in agreement with the study of Bhardwaj (2018) who found a significantly positive association between profitability and debt ratios in a study designed to investigate the relationship.

5.2.2 Effect of debt-equity ratio on profitability of Equity Bank Uganda Limited

The study found out that debt-equity ratio is positively ($\beta=0.081$) and statistically and significantly (sig-value=0.002) affect profitability of Equity Bank Uganda Limited. This was in agreement with the study of Abubakar (2015) who found a positive relationship among leverage and the financial performance when compare with debt to equity ratio. The findings were further in agreement with the study of Rehman (2013) who found a positive relationship of debt equity ratio with return on asset and sales growth in listed sugar companies of Pakistan. However, this was in disagreement with a study conducted by Muritala (2018) who found a negative relationship between ROA and debt ratio at 1% level. This was further in disagreement with Abel (2018) who found

a negative relationship between profitability and leverage and this was found empirically.

5.2.3 Effect of interest coverage ratio on profitability of Equity Bank Uganda Limited

The study found out that interest coverage ratio is positively ($\beta=0.023$) and does not statistically and significantly (sig-value=0.426) affect profitability of Equity Bank Uganda Limited. The findings were in disagreement with Mburu (2017) who found out that interest coverage ratio has no significant effect on profitability of banking institutions. This was further in disagreement with Kumar (2017) who found a negative correlation between degree of interest coverage and earnings per share in SAIL. This was in agreement with the finding of Enekwe, Agu and Eziedo (2014) who found out that interest coverage ratio (ICR) has a positive relationship with Return on Assets (ROA) in Nigeria pharmaceutical industry.

5.3 Conclusions of the study

The main purpose of the research was to investigate the effect of financial leverage on profitability of Equity Bank Uganda Limited. Therefore, the conclusions below are based on research objectives of the study.

From the findings, debt ratio statistically and significantly affect profitability of Equity Bank Uganda Limited. Thus, an increase in debt ratio increases profitability of Equity Bank Uganda Limited, whereas a decrease in debt ratio of Equity Bank Uganda Limited decreases their profitability.

From the findings, debt-equity ratio statistically and significantly affect profitability of Equity Bank Uganda Limited. Therefore, an increase in debt-equity ratio increases profitability of Equity Bank Uganda Limited and a decrease in debt-equity ratio decreases their profitability.

According to the findings, interest coverage ratio does not statistically and significantly affect profitability of Equity Bank Uganda Limited. Thus, an increase in interest

coverage ratio increase profitability of Equity Bank Uganda Limited, whereas a decrease in interest coverage ratio lead to a decrease in profitability of Equity Bank Uganda Limited.

5.4 Recommendations

The following recommendations were suggested by the researcher;

Equity Bank Uganda Limited's management should ensure that financial decisions made by them are in consonance with shareholders' wealth maximization objectives which encompasses the profit maximization objective of Equity Bank Uganda Limited.

The amount of debt finance in the financial mix of the firm should be at the optimal level so as to ensure adequate utilisation of the Equity Bank Uganda Limited's assets.

Managers should employ financial leverage in a way that enhances value for their company owners' i.e leading to an increase in returns to equity holders.

The management should monitor the interest charged on debt financing to avoid liquidation of the company.

Financial leverage decision is very critical to the survival and profitability of Equity Bank Uganda Limited. Therefore, an appropriate debt-equity mix should be adopted by Equity Bank Uganda Limited if it must improve its profitability, survive and remain competitive.

5.5 Contribution to knowledge

There has been several research effort to establish the relationship that exists between financial leverage and profitability of banks, however the search to know more with increasingly available data is a continuum and this present study has contributed to knowledge in the following areas;

The previous related literature reviewed in this study reveals the paucity of empirical evidence to establish the effect of financial leverage of commercial banks on liquidity and efficiency. This present study has made a significant contribution to knowledge

by revealing not just how financial leverage of commercial banks affect their liquidity and efficiency but also return on assets and return on equity and further the implication of such effects.

To the best of the researcher's knowledge and in view of the several research efforts that have been invested in this area of study, the latest period covered by previous related studies is 2012. The researcher consider this study as having significantly contributed to knowledge by providing updated empirical evidence (2006-2015) in Uganda to explain the profitability of banks with respect to their financial leverage based on prevailing circumstances and available data after the bank consolidated exercise and global financial recession of 2005-2010

In addition to the aforementioned contributions, this study has also developed empirical models for predicting future profitability of firms especially in the banking sector at a particular mix of debt as stated below.

$$(ROA)_t = \beta_0 + \beta_1(DR)_t + \beta_2(DER)_t + \beta_3(ICR)_t + \varepsilon_i$$

$$(ROE)_t = \beta_0 + \beta_1(DR)_t + \beta_2(DER)_t + \beta_3(ICR)_t + \varepsilon_i$$

5.6 Areas for future research

Researchers can take advantage from this study by applying it to another companies, in different sectors in Uganda, in order to discover the relationship between the risks and financial indicators and ratios, in addition to the stock returns of the companies

In line with the study results, researchers are advised to choose new financial indicators and ratios that were not taken into consideration previously, in order to acknowledge the relationship between these ratios and the companies' profitability.

Future researchers may extend study period and may also take all the deposit taking institutions that are regulated by central bank of Uganda to check the relationship between financial leverage and financial performance.

REFERENCES

- Abdul, A., & Adelabu, I. T. (2015). Impact of Financial Leverage on Firm Performance: Evaluation of Total Nigeria Plc. *International Journal of Science Commerce And Humanities*, 3(6).
- Abel, A. B. (2018). Optimal Debt and Profitability in the Trade-Off Theory. *The Journal of Finance*, 73(1), 95-143.
- Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The journal of risk finance*, 6(5), 438-445.
- Abubakar, A. (2015). Relationship between financial leverage and financial performance of deposit money banks in nigeria. *International Journal of Economics, Commerce and Management*, 3(10), 759-778.
- Aggarwal, R., Drake, P.P., Kobor, A., & Noronha, G. (2011). Capital structure in corporate finance, CFA level II Program curriculum, Vol 3 Pearson Learning Solutions, Pp. 99-132
- Akhtar, S., Javed, B., Maryam, A., & Sadia, H. (2012). Relationship between financial leverage and financial performance: Evidence from fuel & energy sector of Pakistan. *European Journal of Business and Management*, 4(11), 7-17.
- Alcock, J., Baum, A., Colley, N., & Steiner, E. (2013). The role of financial leverage in the performance of private equity real estate funds. *The Journal of Private Equity*, 80-91.
- Al-Debi'e, M. M. (2011). Working capital management and profitability: the case of industrial firms in Jordan. *European Journal of Economics, Finance and Administrative Sciences*, 36, 75-86.
- Alkhatib, K. (2012). The determinants of leverage of listed companies. *International journal of business and social science*, 3(24).

- Al-Mwalla, M. (2012). The impact of Working Capital Management Policies on firm's Profitability and Value: the case of Jordan. *International Research Journal of Finance and Economics*, 85(4), 1450-2887.
- Anarfo, E. B., & Appiahene, E. (2017). The Impact of Capital Structure on Banks' Profitability in Africa. *Journal of Accounting and Finance*, 17(2), 55.
- Asoqwa, F. O., & Isinguzo, O. (2017). Risk Adjusted Leverage Capital And The Performance Of Nigerian Bank Assets. *American Journal of Economics*, 1(1), 95-110.
- Bhardwaj, A. (2018). Financial Leverage and Firm's Value: A study of capital Structure of Selected Manufacturing Sector Firms in India.
- Bhunja, A. (2012). Leverage impact on firms investment decision: A case study of Indian pharmaceutical companies. *Contemporary Business Studies*.
- Bibi, N., & Amjad, S. (2017). The relationship between liquidity and firms' profitability: A case study of karachi stock exchange. *Asian Journal of Finance & Accounting*, 9(1), 54-67.
- BOU (June 2015). "List of Licensed Commercial Banks As At June 2015" (PDF). Kampala: Bank of Uganda (BOU). Retrieved 18 December 2015.
- Bui, N. T. H. (2017). The impact of financial leverage on firm performance: A case study of listed oil and gas companies in England. *International Journal of Economics, Commerce and Management*, 5(6), 477-485.
- Castro, P., Tascon, M., & Amor-Tapia, B. (2012). The role of life cycle on capital structure. URL: <http://www.aeca.es/xvencuentroaeca/cd/34b.pdf>.
- Chakraborty, I. (2010). Financial development and economic growth in India: An analysis of the post-reform period. *South Asia Economic Journal*, 11(2), 287-308.

- Chui, A. C., Lloyd, A. E., & Kwok, C. C. (2002). The determination of capital structure: is national culture a missing piece to the puzzle?. *Journal of international business studies*, 33(1), 99-127.
- Damodaran, A. (2007). Return on capital (ROC), return on invested capital (ROIC) and return on equity (ROE): Measurement and implications.
- David, D. F., & Olorunfemi, S. (2010). Capital structure and corporate performance in Nigeria petroleum industry: panel data analysis. *Journal of Mathematics and Statistics*, 6(2), 168-173.
- De Jong, A., Verbeek, M., & Verwijmeren, P. (2011). Firms' debt-equity decisions when the static tradeoff theory and the pecking order theory disagree. *Journal of Banking & Finance*, 35(5), 1303-1314.
- De Miguel, A., & Pindado, J. (2001). Determinants of capital structure: new evidence from Spanish panel data. *Journal of corporate finance*, 1(1), 77-99.
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms?. *Journal of business finance & Accounting*, 30(3-4), 573-588.
- Donaldson, G. (1961), *Corporate Debt Capacity: A Study of Corporate Debt Policy and Determination of Corporate Debt Capacity*, Harvard Graduate School of Management, Boston, MA.
- Emekekwe, P.E (2008). Corporate Financial Management. 5th Revised ed; Kinshasha: African Bureau of Educational Sciences
- Enekwe, C. I., Agu, C. I., & Eziedo, K. N. (2014). The effect of financial leverage on financial performance: evidence of quoted pharmaceutical companies in Nigeria. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 5(3), 17-25.
- Equity Bank Annual Report. (June 2017). Equity bank Uganda Annual Report, Kampala, Uganda. Retrieved from:

http://www.dyerandblaironline.com/research_web/Corporate%20Actions/Banking/Equity%20Group%20Annual%20Report%202017.PDF

Ezeamama, M. C. (2010). *Fundamentals of Financial management: A practical guide. Enugu: Ema Press Ltd.*

Falope, O. I., & Ajilore, O. T. (2009). Working capital management and corporate profitability: evidence from panel data analysis of selected quoted companies in Nigeria. *Research journal of business management*, 3(3), 73-84.

Frank, M. Z., & Goyal, V. K. (2014). The profits–leverage puzzle revisited. *Review of Finance*, 19(4), 1415-1453.

Gatsi, J. G., Gadzo, S. G., & Akoto, R. K. (2013). Degree of financial and operating leverage and profitability of insurance firms in Ghana. *International Business and Management*, 2(2), 57-65.

Gitman, L. J., Juchau, R., & Flanagan, J. (2015). *Principles of managerial finance*. Pearson Higher Education AU.

Gweyi, M. O., & Karanja, J. (2014). Effect of financial leverage on financial performance of Deposit Taking Savings and Credit Co-operative in Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(2), 180-188.

Higgins, R. C. (2012). *Analysis for financial management*. McGraw-Hill/Irwin.

Hovakimian, A., Hovakimian, G., & Tehranian, H. (2004). Determinants of target capital structure: The case of dual debt and equity issues. *Journal of financial economics*, 71(3), 517-540.

Huang, G. (2006). The determinants of capital structure: Evidence from China. *China economic review*, 17(1), 14-36.

- Jalal, A. M. (2007). The pecking order, information asymmetry, and financial market efficiency.
- Joh, S. W. (2003). Corporate governance and firm profitability: evidence from Korea before the economic crisis. *Journal of financial Economics*, 68(2), 287-322.
- Juma, V. (16 April 2018). "Equity injects USh36 billion more in Uganda unit". Daily Monitor. Kampala. Retrieved 17 April 2018.
- Karaduman, H. A., Akbas, H. E., Caliskan, A. O., & Durer, S. (2011). The relationship between working capital management and profitability: evidence from an emerging market. *International Research Journal of Finance and Economics*, 62(6), 61-67.
- Khan, M. M., Ur-Rehman, Z., & Dodhy, Q. N. (2013). Impact of Financial Leverage on Financial Performance: Evidence from Oil and Gas Sector of Pakistan. *Oman Chapter of Arabian Journal of Business and Management Review*, 34(982), 1-15.
- Kiggundu, E. (30 April 2018). "Analysis: Here are the banks that made profits, losses in 2017 and why". Kampala: Nile Post Uganda. Retrieved 13 June 2018.
- Koutsoyianis, A (2003). Theory of Econometrics. 2 nd ed; London: Palmgrave Publishers.
- Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The journal of finance*, 28(4), 911-922.
- Kumar, P. (2017). Relationship between Degree of Financial Leverage and Earning Per Share.
- Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange.

- Mathuva, D. (2015). The Influence of working capital management components on corporate profitability.
- Mburu, A. K. (2017). Effect Of Capital Structure On Stock Returns Of Manufacturing And Allied Firms Listed At The Nairobi Securities Exchange (Doctoral Dissertation, School Of Business, University Of Nairobi).
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, 48(3), 261-297.
- Mule, R. K., & Mukras, M. S. (2015). Financial leverage and performance of listed firms in a frontier market: Panel evidence from Kenya. *European Scientific Journal, ESJ*, 11(7).
- Muritala, T. A. (2018). An empirical analysis of capital structure on firms' performance in Nigeria. *IJAME*.
- Musah, A. (2017). The Impact of Capital Structure on Profitability of Commercial Banks in Ghana. *Asian Journal of Economic Modelling*, 6(1), 21-36.
- Mwangi, I. M. (2017). *Effect Of Financial Leverage On Investment Of Non-Financial Firms Listed At The Nairobi Securities Exchange* (Doctoral Dissertation, School Of Business, University Of Nairobi).
- Myers S.C. & Brealey, R.A. (2002). Principle of corporate finance. Seventh edition, Irwin McGraw-Hill
- Myers, S. C. (2001). Capital structure. *Journal of Economic perspectives*, 15(2), 81-102.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, 13(2), 187-221.
- Ngigi, G. (1 April 2015). "Equity Bank readies Sh200bn for ten country expansion". Business Daily Africa. Nairobi. Retrieved 9 November 2016.

- Nicoline, V.S. (7 April 2006). "FMO Client Equity Bank Kenya Launches Banking Operations In Uganda". FMO. Retrieved 25 April 2014.
- Njeri, M. M. K., & Kagiri, A. W. (2013). Effect of capital structure on financial performance of banking institutions listed in Nairobi Securities Exchange. *International Journal of Science and Research*.
- Nwude, C. (2003). Basic Principles Of Financial Management (A Second Course) Enugu: Chuke Nwabude Nigeria.
- Nyambura-Mwaura, H. (18 April 2005). "Kenya's Equity Bank To Buy Uganda Microfinance". Reuters. Retrieved 25 April 2014.
- Oladipupo, A. O., & Okafor, C. A. (2013). Relative contribution of working capital management to corporate profitability and dividend payout ratio: Evidence from Nigeria. *International Journal of Business and Finance Research*, 3(2), 11-20.
- Onwumere, J. U. J., Ibe, I. G., & Ugbam, O. C. (2012). The impact of working capital management on profitability of Nigerian firms: A preliminary investigation. *European Journal of Business and management*, 4(15), 192-201.
- Pandey, I.M (2010). Financial Management, New Delhi: Vikas Publishing House Limited.
- Penman, S. H. (2007). Financial reporting quality: is fair value a plus or a minus?. *Accounting and business research*, 37(sup1), 33-44.
- Perinpanathan, R. (2014). Impact of Financial Leverage on Financial Performance Special Reference to John Keels Holdings PLC Sri Lanka.
- 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*.

- Rodrigo R. (2015, March 5). Capital Structure Irrelevance Theorem and Asymmetric Information. Retrieved May 25, 2018, from <https://writepass.com/journal/2015/03/capital-structure-irrelevance-theorem-and-asymmetric-information/>
- Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia-Social and Behavioral Sciences*, 65, 156-166.
- Simon, M. K., & Goes, J. (2013). Ex post facto research. Retrieved September, 25, 2013.
- Singh, J. P., & Pandey, S. (2008). Impact of Working Capital Management in the Profitability of Hindalco Industries Limited. *ICFAI journal of financial Economics*, 6(4).
- Srivastava, S. K., & Srivastava, R. K. (2006). Managing product returns for reverse logistics. *International Journal of Physical Distribution & Logistics Management*, 36(7), 524-546.
- Subedi, D., & Maheshwari, S. (2007). Impact of total quality management (TQM) on profitability and efficiency of Baldrige award winners. *Delhi Business Review*, 8(1), 55-62.
- Sunday, A., Turyahebwa, A., Erick, M., Byamukama, E., & Martin, T. (2017). Ownership Structure and Financial Performance of Companies in Uganda.
- Tauringana, V., & Adjapong Afrifa, G. (2013). The relative importance of working capital management and its components to SMEs' profitability. *Journal of Small Business and Enterprise Development*, 20(3), 453-469.
- Thaddeus, E. O., & Chigbu, E. E. (2012). Analysis of Effect of Financing Leverage on Bank Performance: Evidence from Nigeria. *Journal of Public Administration and Governance*, 2(4), 178-187.

Vieira, E. S. (2017). Debt policy and firm performance of family firms: the impact of economic adversity. *International Journal of Managerial Finance*, 13(3), 267-286.

APPENDICES

APPENDIX A

EBUL PANEL DATA (In millions of Shillings)

YEAR	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EBIT	1,103	2,378	5,022	5,278	9,045	12,834	17,420	19,004	22,364	23,958
DE	127	495	1,362	1,622	2,062	3,116	6,884	5,399	6,192	9,249
DEBT	1,508	2,660	6,617	9,170	11,713	16,223	23,964	26,491	29,175	33,922
FA	20,024	53,076	78,879	100,812	143,018	196,294	243,170	277,729	344,572	428,062
TL	17,824	38,159	59,299	77,904	115,814	162,009	200,254	226,174	280,796	355,926
TE	2,200	14,917	19,580	22,908	27,204	34,285	42,916	51,555	63,776	72,136
DR	0.8901	0.7190	0.7518	0.7728	0.8098	0.8253	0.8235	0.8144	0.8149	0.8315
DER	8.1018	2.5581	3.0285	3.4007	4.2572	4.7254	4.6662	4.3870	4.4028	4.9341
CR	8.6850	4.8040	3.6872	3.2540	4.3865	4.1187	2.5305	3.5199	3.6118	2.5903
ROA	0.0753	0.0501	0.0839	0.0910	0.0819	0.0826	0.0985	0.0954	0.0847	0.0792
ROE	0.6855	0.1783	0.3379	0.4003	0.4306	0.4732	0.5584	0.5138	0.4575	0.4703

APPENDIX B

TIME FRAME

Item/Time	March 2018	April 2018	May 2018	June 2018
Proposal writing				
Data collection and analysis				
Data Presentation				
Final report submission				