

**FACTORS THAT AFFECT BANKS PROFITABILITY IN MALAWI**

**MASTER OF BUSINESS ADMINISTRATION THESIS**

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University of Malawi

The polytechnic

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# **FACTORS THAT AFFECT BANKS PROFITABILITY IN MALAWI**

**Master of Business Administration Thesis**

By

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Submitted to the Department of Management Studies, Faculty of Commerce in partial  
fulfilment of the Degree of Master of Business Administration

University of Malawi

The polytechnic

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## **DECLARATION**

I declare that this dissertation is a product of my own work and that I have acknowledged all sources of information. It is being submitted in partial fulfilment of the requirements for the award of the degree of Master in Business Administration (MBA) in the University of Malawi. The dissertation has never before been submitted to any other academic institution be it University or College for the award of an educational qualification.

Wezi Matundu -Chavula (Mrs)

Signature: .....

This..... day of.....

## CERTIFICATE OF APPROVAL

We, the undersigned, certify that we have read and hereby recommend for acceptance by the University of Malawi a thesis entitled: *'Factors that affect Banks profitability in Malawi'*

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**Date** :

## **DEDICATION**

I dedicate this research work to my father, the late Mr Mqocha Elijah Matundu and my mother Mercent Matundu for motivating me to work hard in my education. My husband has played a big role in encouraging me to finish this thesis after a long break; my kids ( Gomezgani, Hope and Uchindami ) inspire me to do more for their sake and to motivate them for a better life.

## **ACKNOWLEDGEMENT**

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I am further indebted to Mr Alick Kaumba, Mr Kezzie Mkandawire and Mr Charles Mwatsika for their guidance and encouragement.

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## ABSTRACT

Until now, not much recent research has been done into bank's profitability in Malawi except for one done over a period of 24 years in 2003 by Chirwa and Lipunga in 2014 which only looked at banks that were listed on Malawi Stock Exchange. Yet at global level, empirical evidence shows that various studies have been done particularly in developing countries. Special interest was therefore drawn to undertake a study on bank's profitability in Malawi, realizing that banks are key players in the economy. Their profitability or lack of has significant bearing on other sectors of the economy. For example, profitable banks have capacity to lend money to other investors in other sectors and this, without doubt, can spur the economy.

The study explored in detail the factors that affect probability in Malawian banks. Further, the study explored the extent to which bank's profitability is affected by the identified factors through application of regression analysis. The study relied on desk research through critical review of secondary data i.e. published bank annual reports for eleven Malawian banks covering a period of six years from 2010 to 2015. Consistent with prior studies into the subject, factors affecting bank's profitability in Malawi include size of the bank i.e. assets, cost to income ratio, loan loss ratio and size of customer deposits. The wider policy framework under which banks operate also plays a role e.g. interest rate, tax regime and inflation related pricing. Principally, this means both internal and external factors are responsible for bank profitability. The study's concentration was on internal factors.

Consistent with prior research findings, the study uncovered that banks with big assets are more profitable than small size banks. High cost to income ratio also accounts for low profitability. Banks that are able to control their costs make better profits compared to those with cost challenges. On the customer deposit ratio, results show that the higher customer deposits that the bank holds, the more the profits they make. Banks profitability is also affected negatively by loan loss ratios. The higher the loan loss ratio, the less profitable the bank is. In line with the findings, the study concludes and recommends that banks need to heed and augment the factors that determine profitability so that efforts are consolidated and steps taken to enhance profitability factors whilst stringent measures are put in place to contain profit constraining factors.

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## **ABBREVIATIONS AND ACRONYMS**

Bankers Associations of Malawi (BAM)

Capital Adequacy Requirements (CAR)

Information Technology (IT)

Loan Loss Ratio (LLR)

Opportunity International Bank of Malawi (OIBM)

Reserve Bank of Malawi (RBM)

Return on Assets (ROA)

Return on Equity (ROE)

# **CHAPTER ONE**

## **BACKGROUND AND INTRODUCTION**

### **1.0 BACKGROUND OF BANKING SECTOR IN MALAWI**

Banking business means “the business of receiving funds from the general public by accepting demand, time and savings or by borrowing from the public or other banks, and employing such funds, in whole or in part, by granting loans, advances and credit facilities and by investing or by any other means at the risk of the persona conducting such business” (Banking Act, 2010). This implies that the risk in carrying out banking business rests with the bank. It carries enormous risk to lend funds from the public. Within the same Banking Act, chapter 18, banks are to comply with the requirement of capital ratios and that every bank shall ensure that its provisions for bad and doubtful debts are adequate at all times. Capital base is made of paid up capital and unimpaired reserves. It is against this background that financial institutions supervised by The Reserve Bank of Malawi (RBM) are obliged to produce audited financial statements so that the accounts give a true and fair view of the institution to the depositors as well as the general public. This is one of the corporate governance requirements to be complied with at all times. For banks, it is inevitable that all information is disclosed about the business and for accuracy of the information, it must be audited. This gives confidence to the public and depositors. Banks use depositors’ money to lend and make profits through interests (Banking Act, 2010). However, as banks lend out, there are risks which they encounter such as delays in repayments and outright defaulting to repaying the loan. There are also other investment decisions that banks make that affect profitability. This necessitates the banks to scrutinise all loans to make sure that the risks are mitigated and appropriate security is taken. Generally, all loans go through an assessment process before disbursement. Even if risks have been identified and mitigated, there is still a chance that something might go wrong. For instance, due to lack of monitoring, customers may relax and miss repayments when they fall due. As such, monitoring of accounts with due payment is very important. In terms of post disbursement activities, the credit managers who are the implementers of the whole program are responsible for follow up.

The goals of financial institutions are to maximize profits through retention of existing customers and attraction of new customers. Profitability is enhanced if the risks are properly calculated, mitigated and reinforced by regular follow up on all loans to ensure payment

periods are adhered to. Banking business is therefore described by Hogan et al. (1999) as the profitable management of risk.

All shareholders or investors look for reward of their investments which is known as profits. Profit means money made by a firm with resources available at its disposal (Macharia, 2016). Goals of all organisations are therefore profit maximisation. (Noresh & Velnampy, 2014).

Profit is generally the difference between revenue received at the cost of producing that revenue, (Sterwald, 2010). It's expressed in either account or economic terms. (Anene, 2014). Profit generally measures efficiency of management (Moya & Gathogo, 2016). Long term survival and success of any organisation depends of its profitability (Fara & Nina 2016) and banks are not spared. Profitability is a very important aspect in banking to maintain its on-going activities i.e. lending to clients, investing in new technologies and generating revenue for shareholders (Ponce, 2011).

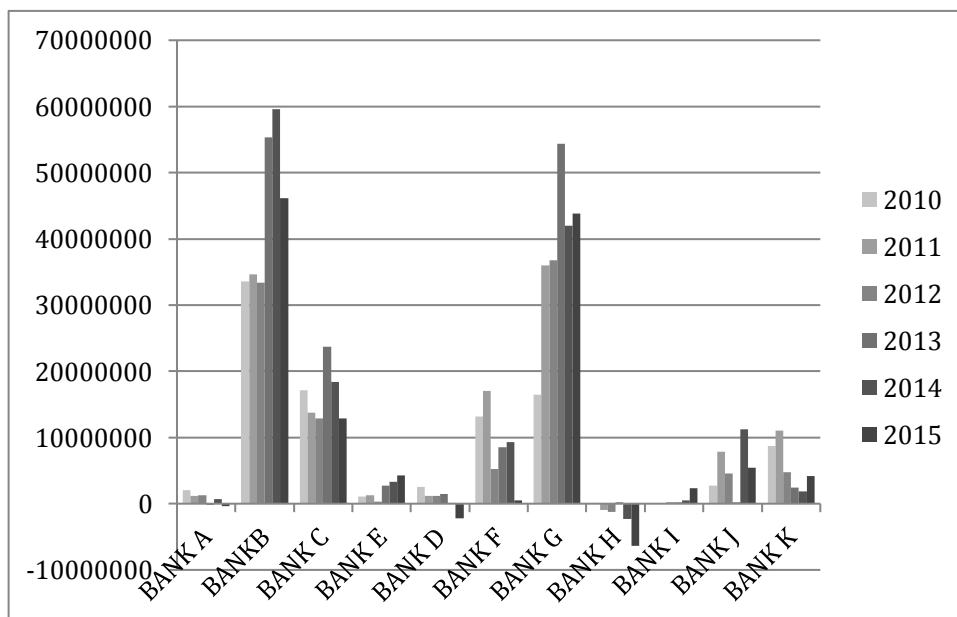
Profitability is the one of the main aspects of reporting for many firms including banks, (Farah & Nina, 2016). It gives a clear indication of business performance (Macharia, 2016). Thus profitability is measured by using accounting ratios in banks and the most common ratios are Return on assets employed (ROA) and Return on Equity (ROE). These two ratios measure how efficient management uses resources to generate the revenue (Sehrish, Irshad, & Khalid, 2010). So higher ROA or ROE indicates the banks have made better profits, (Bentum, 2012).

Banks are a very important player in the economy of every country more particularly developing countries that are very vulnerable to economic shocks. Performance of banking system is very critical in financial systems as this helps to reallocate funds from savers to borrowers and thereby increasing better quality of services (De Bandt & Davis, 2000). While managing such operational functions, there are always risks associated with banking. Banks contribute to the health and stability of any economy. Hence most world economies put their efforts on growing and stabilising banking sector (Aljibiri, 2013). Malawi is therefore not spared of the need to manage the financial institutions particularly banks. Over the years, Malawian banking has evolved from restrictions on licencing of banks into market liberalization. This led to licencing of new banks in the country to twelve as at 31<sup>st</sup> December 2015 (Chirwa, 2013). This created competition and the reforms helped on profitability of the banks and economy. RBM is mandated to formulate and execute monetary policies and monitory financial institutions.

Below is the back ground

Eleven banks that are included in the research cover Nedbank Malawi Limited, National Bank Limited, FMB Limited, Eco Bank Limited, Indebank Limited, NBS Limited, Standard Bank, OIBM Limited, CDH Limited, FDH Limited and last but not least Malawi Savings Bank Limited. The research has included all banks at the time of writing except for NFB limited which was new in the market and was incorporated in 2014. This bank only had 2015 annual results which was just one year in this study's review period. This was considered too short a period for inclusion in the research. Data was collected from all the mentioned banks annual reports and analysed for the mentioned period and were operational.

Below is the tabulation of the performance of individual eleven banks in terms of the absolute profits in United States American Dollars.



**Figure 1.0 Banks profits in Malawi (2010- 2015)**

From table 1.0, it's very clear that there are two major banks that post a lot of profits compared to other banks. Bank B and Bank G dominated the profitability of banks over the years while some banks such as Bank D and Bank H posted losses in 2015 and 2012, to 2015 respectively. Other banks such as Bank A posted very little profits the first three years and

thereafter losses. There are some banks that posted profits but very little compared to the industry such Bank E and Bank I although there was growth.

## **1.1 AN OVERVIEW OF BANKS IN MALAWI UNDER RESEARCH**

Please note that the list of banks below is not in order of the reports displayed in this report.

### **1.1.1 National bank of Malawi**

This has a Barclays and Standard Bank Chartered background. It has over 30 branches countrywide and was listed on Malawi Stock Exchange in 2000. Its shareholding is as follows: Press Corporation (51.5%), Old Mutual (24.9%), public shares (21.8%) and remaining 1.8% is ESOP (Annual Report, 2015).

### **1.1.2 First merchant bank**

This is a public limited company registered under the Company Act, 1984, listed on the Malawi Stock Exchange in 2006 and is also registered under the Banking Act, 2010. Its ownership is as follows: Zambezi Investments Limited (44.94%), Simsbury Holding Limited (22.69%), Prime Capital Holding Limited (11.24%) and others 21.13%. FMB Bank limited owns 100% of Leasing & Finance Limited and FMB Capital Markets Limited locally while owning 70% in Capital Bank in Mozambique, 38.6% in Botswana and 49% in Capital Bank in Zambia.

### **1.1.3 Nedbank Malawi limited**

Nedbank Malawi Limited is a private limited company incorporated in Malawi under the Companies Act, 1984 and is registered as a commercial bank under the Banking Act, 2009. Nedbank is owned by 98.53% Nedbank Group investment Africa, which is wholly owned by Nedbank Group Limited which also holds the remaining 1.47%; Annual report 2015. The bank has been operating in Malawi for the past eighteen years. Nedbank actually bought Malawi government shares in what used to be called FINCOM.

### **1.1.4 Indebank limited**

Indebank was formed in 1972 by the Malawi Government as an arm of investment banking, hence its name deriving from that purpose as a development bank. It later changed into a fully-fledged commercial bank in 2001. Their shareholding was Malawi Government (41.38%), Press Trust (30%), ADMARC Limited (25%) and ESOP (2.95%) and later due to



capital requirements, the bank was bought off by National Bank formally in 2016. This research however looks at its financials before being bought off officially.

#### **1.1.5 Eco bank limited**

Eco Bank was previously Loita bank which was bought off in April 2008. Headquartered in Lome, Togo, the bank has a strong presence in West Africa including Nigeria and Ghana. The bank is owned 100% by Eco Bank Transnational Incorporation based in Togo.

#### **1.1.6 NBS bank limited**

This bank was registered as a limited company in 2003 from a building society background and in 2014 it became a fully-fledged commercial bank. Due to capital adequacy requirements through Basal II, It became undercapitalised and through rights issuance of shares to existing shareholders, it managed to raise additional capital in June 2017. Its current shareholding is as follows: NICO (50.1%) public shareholding (26.2%), IFC (18%), National Investment Trust Limited (5.2%) and the remaining 0.4% is held by ESOP.

#### **1.1.7 Standard bank limited**

This was formally Commercial bank which was registered in Malawi and started its operation in 1970. Over the years, is has changed shareholding and currently 60.18% is owned by Stanbic Africa Holdings and the remaining 39.82 % is owned by other shareholders. It trades in 20 African countries including Malawi. It is registered on the Malawi Sock Exchange in 1998.

#### **1.1.8 Opportunity international bank of Malawi (OIBM)**

The bank was licenced on 20<sup>th</sup> May 2002 and started its operations in 2003. It's part of Opportunity International Network legally known as Opportunity Finance Investments Limited and Opportunity Transformation Investments OTT. The profitability trend has been dwindling and eventually made losses. At the time of this thesis report, it was also bought off by FMB Limited officially in 2017.

### **1.1.9 CDH bank limited**

This was licenced in 2012 and started its operations the same year. Its data is included in the research for four year (2012 to 2015). CDH Holding limited owns 70% of the shares, 12 % is owned by Investments Alliance Limited and the rest by other minority shareholders.

### **1.1.10 Malawi savings bank limited**

This was the only bank that was wholly owned by the government of Malawi and was licensed in 1994 after a split between postal services and government savings business. The bank started its operations in 1995. Its inclusion in the research is definitely necessary as it was on the only whole owned bank by government. Due to basal capital requirements, the bank needed strategic investor and the government sold off its shares in 2015 and concluded as a merger with FDH Bank limited on 1<sup>st</sup> July 2016.

### **1.1.11 FDH bank limited**

This bank was registered with Reserve Bank of Malawi in November 2007 and it started its banking operations in February 2008. The bank is wholly owned by FDH Financial Holdings Limited which in turn is owned by M Development Limited 55% Old Mutual holdings 40% and the remaining 5 % is held by ESOP. The bank started the process of acquiring Malawi Savings Bank Limited and concluded the deal on 1<sup>st</sup> July 2016.

## **1.2 RESEARCH PROBLEM**

As per the requirement of the corporate governance and Stock Exchange Act 1984, there is a need to produce audited account annually which represents a true and fair picture of the institution. RBM also requires that banks produce true and fair financial reports in order to give confidence to the general public and depositors in the economy. To achieve this, there are several requirements, some of which are adequate capital requirements, providing for expected bad debts and controlling costs while increasing revenue for banks. Although this is being adhered to, banks differ in how profitable their results show by the end of each year.

Malawi had twelve registered banks as at 31<sup>st</sup> December 2015; some banks were posting high profits while others are making losses. This research looks at why other banks are making profits while others are failing to achieve their targets despite operating within the same macro-economic conditions.

There are several factors that affect the bank profitability according to Vong and Chan (2006). They are also split into two categories; - internal as well as external factors (Macharia, 2016). Management has no control over external factors while they have control over internal factors such as cost control, capital strength and assets quality. External factors are related to legal and economic environment and comprises of factors such as interest rates, inflation, recession, boom, regulations market growth and structure (Staikouras & Wood, 2011).

Banking system has changed in recent times tremendously due to various factors including global forces (Scott& Arias, 2011). Such changes have created opportunities for expansion as well created challenges to manage immerging risks and changes in technology. Banks have more risks and regulations to manage compared to other businesses which adversely affect their profitability ( Adeusi, Kolapo & Aluko, 2014)

Financial sector includes SACCOS, Micro Finance and banks. Banks play a major role in the economic sector. Over the years while some banks have been growing year on year in terms of profitability, others have been making losses. For example, Bank A, Bank H and Bank F in 2015 made huge losses in the tune of (\$0.4 million) (\$6.4million) and, (\$2.2million) respectively while Bank B and Bank G made huge profits amounting to \$46.1 million and \$43.8 million. Such huge disparities in profitability of banks which are plying in the same macroeconomic environment prompted the researcher to find out what could be reasons for this anomaly.

In addition to disparity in profitability of specific banks in Malawi, there has been already a lot of research in the developed countries and some developing countries, but not much has been done in the same field in Malawi. Suffice to acknowledge that there was some work or research done in the country by Chirwa in 2003. However this was done covering the period of twenty four years from 1970 to 1994 which is way back and before the liberalisation of the market. Another research was done in 2014 by Lipunga. Although Lipunga study looked at recent data as close as 2012, his study only looked at banks that were listed on Malawi Stock Exchange. A fresh look was necessary for the period after Chirwa' s research particularly due to fact that his research was prior banking market reforms in 1994 and data analysis for all banks was necessary in case of Lipunga' s study. There is information gap in recent times in banking to explore the factors that affect profitability at least to the knowledge of the researcher.

From the above information for individual banks, it can be noted that while some banks, such as Bank B, Bank G, Bank D, Bank J, Bank I and Bank C posted profits for shareholders, several other banks such as Bank F, Bank E Bank A and Bank H had inconsistent profits and incurred losses although they all operated under the same macro- economic environment. This motivated this study to find out what are the real factors that affect profitability in Malawi as there has been a lot of empirical evidence that has been done already globally and not necessarily in Malawi. This gap of information is explored in this study and its results will help in academic work as well as professional in the financial sector.

### **1.3 OVERALL OBJECTIVE**

The overall objective was to explore the factors that affect bank profitability in Malawi.

### **1.4 SPECIFIC OBJECTIVES**

- (a) The study identifies whether size of the bank matters in terms of balance sheet in relation to its profitability in Malawi
- (b) The study identifies the effect of cost to income ration on banks profitability in the local banking industry
- (c) The study identifies whether level of customer deposits affect profitability in Malawi
- (d) The study explores the impact of loan-loss ratio matters in bank profitability in the country

### **1.5 HYPOTHESIS OF THE RESEARCH**

This study hypothesizes that bigger banks, in terms of balance sheet, are more profitable than smaller banks. Cost to income ratio also matters in issues of profitability for banks. The customer deposits affect banks profitability positively. The study further hypothesizes that high loan-loss ratio affects profitability negatively. The null hypotheses are therefore as follows:

- Null hypothesis: - profitability is not affected by capital adequacy, quality of loan portfolio, customer deposits and cost control.

## **1.6 SIGNIFICANCE OF THE RESEARCH**

This research analyses what really matters to make profits in the banking industry and therefore shareholders, directors and management of various banks can just concentrate on such issues and make the banking industry profitable.

The research results help the banks to formulate policies and execute as they manage their loan portfolio, manage the balance sheets and maximise on investments. In terms of loan-loss ratio, the process starts from loan appraisal, perfection of security and monitoring to reduce arrears which affect the profitability of banks through provisions for bad debts and therefore manage their loan loss ratio. While banks need to grow their assets, they need to be careful to lend and manage their portfolio so that they reduce the risk of having unmanageable ratios in that regard. These avoided provisions can therefore be invested in growth of the banks. In general the results are of much assistance to managers, investors and analysts of various banks or even other financial institutions to formulate policies and execute them around cost control, non-performing loans, manage their balance sheet through attracting more clients for cheap deposits to grow their profitability.

## **1.7 CHAPTER SUMMARY AND STRUCTURE OF THE THESIS**

This chapter presented the research background and has discussed the definitions of banking business in general, provided the background of the banks involved in this study, their profits over the period of six years from 2010 to 2015. Challenges in the industry in terms of external and internal factors have been highlighted. It has also presented the research overall objectives, research specific objectives and research questions. The remaining part of the thesis is arranged as follows: Literature review on banks profitability and factors that affect the sector is explored in chapter two, the research methodology, data collection and analysis techniques are discussed in chapter three, research findings are discussed in chapter four and finally conclusions from research findings and recommendations are presented in chapter five.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 INTRODUCTION**

This chapter presents literature review under the subject matter both internal and external factors are explored. The chapter describes the theoretical literature and also reviews the empirical literature review on the topic being studied.

#### **2.1 DEFINITION OF SOME CONCEPTS**

Loan loss ratio (LLR) is the percentage representing accumulated provisions and gives an indication of management's expectation of future loan losses (Freed, 2016).

Capital adequacy is the amount of money a bank or financial institution should hold with its regulator. It is also expressed as Capital Requirements (CAR)

According to the Reserve Bank of Malawi, Banking business means “the business of receiving funds from the general public by accepting demand, time and savings or by borrowing from the public or other banks, and employing such funds, in whole or in part, by granting loans, advances and credit facilities and by investing or by any other means at the risk of the persona conducting such business” This implies that the risk in carrying out banking business largely rests with a bank. It carries enormous risk to lend funds from the public. According to the Banking Act, banks are to comply with the requirement of capital ratios and that every bank shall ensure that its provisions for bad and doubtful debts are adequate at all times and these affect the bank's profitability.

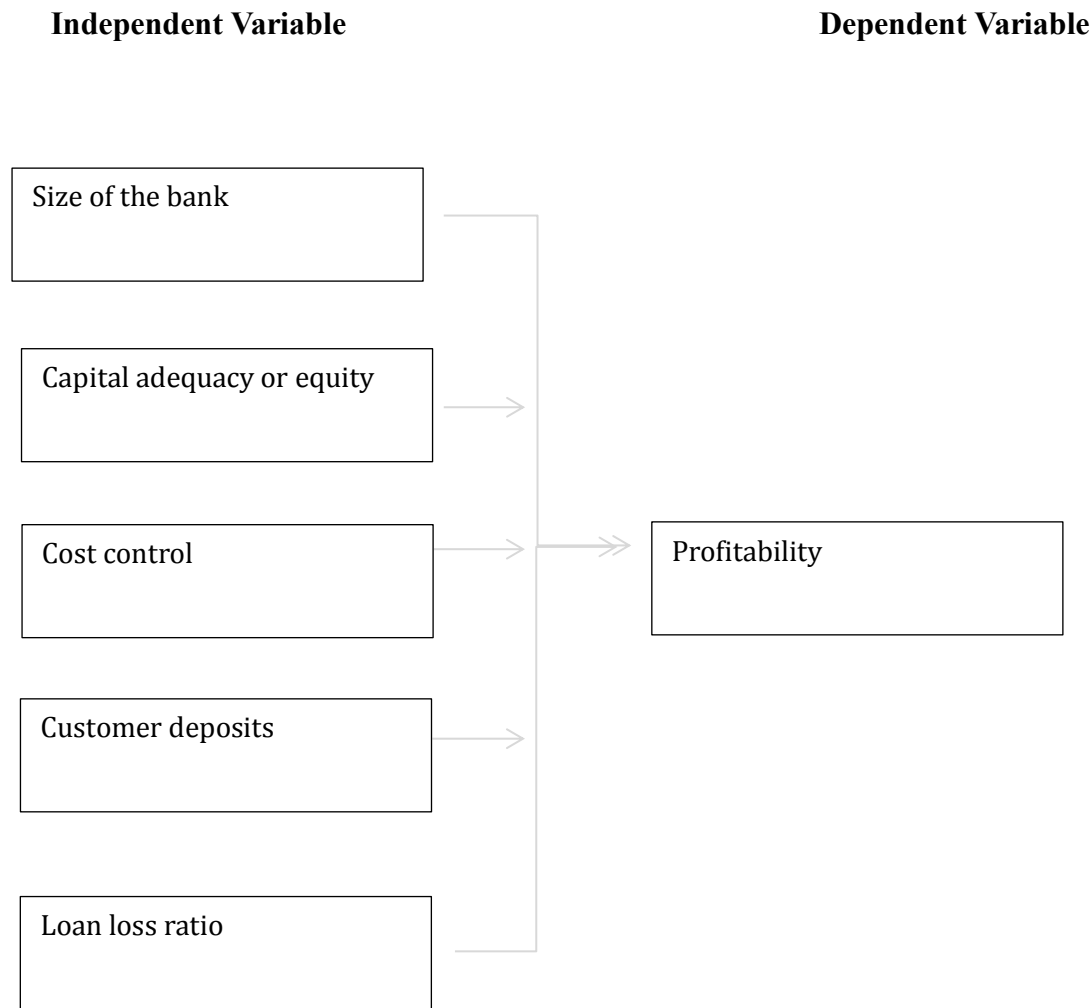
It is against this background that every financial year, all institutions being supervised by Reserve Bank of Malawi are obliged to produce audited financial statements so that the entities at all times give a true and fair view of the institutions. This is one of the corporate governance requirements to be observed at all times. For banks, being financial institutions, it is inevitable that all information is disclosed about the business and for trustworthiness of the information; it must be vouched or verified by an independent and credible entity. This gives confidence to the public, depositors and other stakeholders. Banks use depositors' money to lend and make profits through interests (Banking Act, 2010). However, as banks lend out, there are attendant risks which are encountered ranging from delays in repayments and to complete defaults.

There are also other capital investment decisions that banks make that affect profitability such investment into information technology ( IT ) which may be costly but necessary to render better service as opposed to humans who besides being fraught with fatigue can bring about insurmountable operation risks . This necessitates those banks scrutinise all advances to make sure that the risks are mitigated and depending the circumstances request lodgement of securities. Generally, all advances go through an appraisal before disbursement. Even if risks have been identified and mitigated, there is still a chance that something might go wrong. For instance, due to lack of monitoring, customers may relax and miss repayments when they fall due. As such, monitoring of advances servicing is very important. In terms of post disbursement activities, the credit managers and business managers who are the implementers of the whole program are responsible for follow up.

The goals of most financial institutions are to maximize profits through retention of existing customers and attraction of new ones. Profitability is enhanced if the risks are properly calculated and mitigated by regular follow up on all loans to ensure payment terms are adhered to. In describing what banking business is, Hogan et al. (2001,) assert that “it is the profitable management of risk.”

## **2.2 CONCEPTUAL FRAMEWORK**

A conceptual framework shows the relationship between study variables. This study explores factors that affect banks profitability and therefore the dependent variables are ROA and ROE while independent variables are size of the bank, capital adequacy or equity, cost to income ratio, customer’s deposits and loan loss ratio. These are shown as below



**Figure 2.1 Conceptual Framework**

### **2.3 FACTORS THAT AFFECT BANK PROFITABILITY**

There is a growing literature alluding to the fact that there are many factors that affect profitability of banks in general; some of which are internal whilst others are external factors which are beyond management control such as macro-economic issues (Topak & Talu, 2016). According to Molyneux and Thornton (1992), there is a significant positive relationship between the return on equity and the level of interest rates, bank concentration and government ownership. Further studies done by Athanasoglou, Brissim, and Delis, (2005) concluded that there is a positive relationship between bank profitability and risk while banks size has insignificant relationship with profitability. They further found that GDP per capita fluctuations have insignificant effect on bank profitability. This is a general view and these factors are discussed in greater detail below.



### **2.3.1 Internal factors**

There are several factors that fall under internal factors of profitability. These include size of the bank, financial base of capital adequacy, cost control and credit risk management. These factors have been explored as follows.

#### **2.3.1.1 Size of the bank**

One of the internal factors that affect performance of the banks is the size of the bank (Topak & Talu, 2016). It is assumed that the bigger the bank, the higher the profits in nominal terms it can make in taking in consideration of economies of scale. Although this should be the case, studies have also shown that in some cases bigger banks are negatively affected by rigidities, inertia and bureaucracy (Kosmidou, 2008; Antanasolglou, Delis, and Staikouras, 2006; Boyd & Runckel 1993; & Miller & Noulas, 1997). in the USA, Naceur (2003) in Tunisia and Jiang et al. (2003) in Hong Kong show that indeed larger banks make less profit compared to smaller banks. There are also different findings by others; for instance, Sinkey, (1992) shows that size impacts profitability negatively for large banks but positively for smaller ones while Staikoras and Wood, (2003) concluded that medium sized banks earn highest return followed by smaller banks. Hence banks with large retail deposit taking network do not necessarily gain on cost advantage as interbank market is efficient and competitive which assists smaller banks.

#### **2.3.1.2 Revenue diversification and cost control**

Income statement as the second part of the financial statement also needs to be critically looked into. While balance sheet shows the position of the bank at one point, income statement measures the success of its operations over a period of time, usually one year. Ratios from income statement measure management efficiency in income generation while at the same time control costs.

There is already evidence to support claims that banks that operate at a higher cost, their profits are lower too (Vong & Chan, 2006). According to Borke (1989) and Jiang et al. (2003), profitable banks are the ones that operate at lower cost structure. There have been further studies on this aspect such as the one by Molyneux & Thornton, (1992) concluded that higher wage bill has positive impact on profitability while Guru, Stauton and Juttner, (2002) concluded that positive impact on profits from costs particular tax and overhead costs emanate from the fact that the costs are just passed on to the consumer.

The other important aspect of the income statement is the non interest income ratio. This is a very important aspect of bank profitability. The more a bank is diversified in its income streams apart from interest from loans, the better the profits as interest on loans tends to be affected by macro – economic conditions (Jiang et al., 2003). In addition to traditional banking business, banks over the years have shifted into fee-based business and more expansion into trading and underwriting insurance business as part of diversification (Elsas, Hackethal, & Hulzhauser, 2010). Although some studies such as Stiron (2004) show that greater diversification does not necessarily show great improvement in banks profitability.

### **2.3.1.3 Asset structure capitalisation**

Asset structure or capitalisation is the structure of how the bank is financed and the capacity to cover losses (Hassan & Bashir, 2003). This is basically the capital adequacy ratio i.e. equity over total assets. High solvency affects positive performance while at the same time it increases the cost of financing (Akbas, 2012). This means that management has to balance the solvency ratios so that they still maximise on profitability by investing the funds in other risky ventures other than liquid assets. A well-capitalised bank is perceived as being of lower risk which translates to higher profitability (Vong & Chan, 2006). Topak and Talu (2016), assert that due to its importance and its effect on the economy, national banking supervision or central banks direct banks for minimum ratios. Although this may be the requirements, it does not guarantee bank's liquidity levels as evidenced by the global financial crisis in the USA as banks were not liquid enough to meet their commitments due to funds being tied in mortgage assets. Hence, all countries that follow Basel rules have been given additional mandatory ratios to comply with such Liquidity coverage ratio 3 and Net stable funding ratios 4 which are beyond the scope of this research. In the case of Malawi, the Reserve Bank of Malawi (RBM) requires a 7.5 % of total deposit in this regard (RBM Liquidity Directive, 2010, p. 3-4).

Berger (1995) and Anghazo (1997) concluded that, in the USA, banks which were well capitalised were more profitable than those that were not. Molyneux and Thornton (1992) also conducted similar studies in some European countries and they too concluded that capital ratio impacts banks profitability though in their case, this was usually the case with state owned banks. In a nut shell, there seems to be a positive relationship between the amount of capital of a bank and profitability (Ponce, 2010).

#### **2.3.1.4 Asset or financial structure**

A number of researches have also been carried out on the composition of asset and liability. Deposits and loans are the most important indicators on the balance sheet as they represent the traditional banking activity (Vong & Chan, 2006). Although bank loans are the main source of revenue and therefore are expected to affect profits positively, studies are not conclusive on this assertion. While Aubrey and Mendes, (2000) assert the positive relationship, studies by Bashir and Hassan, (2003) and Staikouras and Wood, (2003) conclude that the higher loans actually affect profits negatively through loan loss provisions and cost of management of the portfolio. Vong and Chan, (2006) concluded that some studies have shown that non-loan earnings assets are more profitable than those that rely heavily on loans for profitability and Ponce, (2010), asserts that “there is a positive relationship with the proportion of customer deposits of a bank and its profitability.”

#### **2.3.1.5 Loans to customer deposits ratio**

Other researches also have looked at the loans to customer deposits ratio which determines the liquidity risk for banks. There is a requirement to maintain a certain minimum level of loans to deposits level. Otherwise banks may have cash flow challenges to meet their immediate payments. In Malawi, in order to manage this aspect, the RBM requires that 74% of deposits should be lent out as loans (Reserve Bank Directive, 2010). However, very low liquid assets may lower the profitability of the banks (Alexious & Sofoklis, (2009) as their margins are generally low compared to the risky investments. Therefore, management has a responsibility of balancing the ratios to maximise profits. Topak and Talu, (2016) further found out that the ratio of interest from loans to interest on deposits had a positive effect on profitability. In other words, the higher the spread between interest rate on loan and interest rate on deposits, the better the profits for banks.

#### **2.3.1.6 Asset quality**

One of the cornerstones of bank performance is the credit risk. In Malawi, the RBM and other stakeholders place a big emphasis on monitoring of credit risk. The reason for this emphasis is that in the event that the borrower fails to pay the loan, it is a direct hit on the bottom line as provision will be made thus reducing profitability (Ponce, 2010). This is expressed by the loan loss reserves to gross loans granted by the banks (Mansur, Hammed Zangene & Mark Zitz, 2006). Vong and Chan, (2006) assert that quality of loans which is measured by loan loss provisions affect banks profitability adversely.

### **2.3.1.7 Retail network**

There is an assumption that banks that have a large network are able to get cheap deposits from the large retail network to fund their investments. This however, has been proven not correct through some studies including the one done by (Vong and Chan, 2006). Their findings show that large retail network and general macroeconomic variables have no impact on the profitability of banks. This is due to the fact that capital markets have become very efficient such that smaller banks can borrow from inter banking easily and at a better cost than traditional brick and mortar banking.

### **2.3.1.8 Quality management**

Although confirmed difficult to measure directly, an aspect of quality of management is an important aspect of bank profitability. This is basically measured through the financial statements such as balance sheet. Balance sheet highlights the financial position of the bank at a point in time (Vong & Chan, 2006). From the balance sheet, cost, asset and liability composition and its size, determine the performance of management quality. This underscores the fact that management make decisions that determine the outcome of the balance sheet and income statement of their banks.

### **2.3.1.9 Efficiency ratios**

Due to technological advancements since the early 1990s, cost of doing business has been declining (Albertazzi & Gambacorta, 2009) suggesting that banks have also benefited from this development. The most prominent efficiency ratio is cost to income ratio. The cost to income ratio shows the managements efficiency to manage given resources profitably. This means the higher the ratio, the less efficient a bank is and the less the profitability (Akbas, 2012). The view is also shared by Vong and Chan, (2006); Bourke, (1989) and Jiang et al., (2003) thus efficiency in expenses management affects positively the probability of banks or there is a positive association between the efficiency of a bank and its profitability. According to Topak & Talu, (2016), operating expenses to total income have a negative impact on the profitability of banks.

## **2.3.2 EXTERNAL FACTORS**

While management has control over internal factors, it has no control over external factors which include economic growth; increase on customer deposits, loans granted and interest margins. However management make projections with an aim of taking advantage of

anticipated opportunities (Guru et al., 2002). According to Nier, (2000) and Gerlach, Pong and Shu, (2004), economic growth affects banks positively through high demand for credit service and better capacity to repay therefore better banks performance. These are expounded in the following sub-sections.

#### **2.3.2.1 Economic growth and interest rates**

It is generally hypothesised that rising interest rates affect bank's profitability, such that the higher the rates, the better the profit margin for banks ( difference between lending and savings rates) as concluded by Hnaweck and Kilcollin, (1984).When an economy is contracting, experience shows that profitability also decreases (Sufian & Chong, 2008). This is due to the fact that recession lead to slower growth and increase in loan losses.

#### **2.3.2.2 Inflation**

Another aspect of external factors is inflation as one of the determinants of banking performance. In general, high inflation rates are associated with high loan interest rates and therefore high income and profitability for banks. Perry (1992) studies shows that inflation has an effect on bank's profitability. He thus asserts that if it is fully expected and rates are adjusted accordingly, it results into positive impact on profits. However if not expected, it results in cash flow challenges for borrowers and eventually results into high loan defaults therefore lowering banks profitability.

Other findings on of the impact of inflation show that while it has a positive impact on profitability in developed countries, the opposite is experienced in the developing countries (Guru et al., 2002; Demirguc-Kunt & Hizinga, 1999).

#### **2.3.2.3 Financial structure and variables**

This is one of the aspect of external factors of bank's profitability that this study considers. According to Vong & Chan, (2006)) financial structure is defined as "the relative importance of the banks affecting its profitability". They assert that the higher demand for the banking services makes it attractive and competitive hence higher profitability. However, this assertion is challenged by Demirguc- Kunt and Huizinga (1999) who present a different view that in competitive markets, where banks assets constitute a large portion of GDP, such banks are generally less profitable.

#### **2.3.2.4 Industry concentration**

Further studies done by Bourke (1989) and Staikouras and Wood (2003) suggest that industry concentration has a positive effect on profitability. This is in view of monopolistic type of environment where the firms are price-makers. However, this viewpoint is challenged by Naceur (2003) who conducted studies in Tunisia, and his results showed a negative relationship between concentration and bank profitability.

From the foregoing, it appears that although there is consensus on the key factors that affect bank profitability, researchers seem to not agree on their effects and their extent. Moreover, most of these studies reviewed above have focused on the developing countries with very little done in developing countries including Malawi. It is this gap that motivated this study. The researcher therefore intended to find out which and how factors affect the profitability of banks in Malawi. To do this, data is collected from eleven banks for a period of six years, starting from 2010 to 2015. The hypotheses of this research revolve around size, capital adequacy, customer's deposits, cost- income ratio and loan – loss ratio against profitability.

While the above are the various aspects or factors that affect banks profitability, below the research covers the actual empirical evidence over the subject matter done within one country;-

Ben Naceur and Goaid (2001) investigated banks profitability factors in Tunis over a period of fifteen years from 1980 – 1995. Later Naceur (2003) enhanced the study from 1980 – 2000 for the same country to determine profitability against total assets, ratio of overhead, equity capital, bank loans and non- interest bearing assets to total assets. He found positive relationship between profitability versus capitalisation and ratio of overheads to assets and loans. In conclusion, there is evidence that non- interest bearing assets have no significant effect on return on assets.

Seiam and Khrawish (2002) used ANOVA analysis, regression and correlation in Jordan over a period of nine years from 1991- 2000. Return on Investment was used as an independent variable while equity, total assets, debit ratio, cash flow to equity, liquidity, and adverting expenses and banks age were independent variables. The results show positive relationship between banks probability and equity, debt ratio, cash surplus, liquidity, and adverting expenses. They also found negative relationship between total assets and banks profitability. In conclusion there was no significant relationship between commercial bank's profitability and bank's age.

Chirwa (2003) used cointegration approach to explore the determinants of eight banks over a period of 24 years from 1970 to 1994 in Malawi. Return on Assets and Return on Capital were used as measures of bank profitability. His independent variables were total assets, capital to assets ratio; loans to assets ratio and demand deposits to total deposits ratio. He found that demand to deposits ratio and loan to assets ratio have a positive and significant effect on bank profitability.

Holder and EL- Bannamy (2004) examined the effect of investment in information technology systems on banks profitability in UK over a period of 20 years from 1976-1996 using the impact of Automated Teller Machines (ATMs). They used return on assets versus bank size, capital- assets ratio, loans, deposits to total assets and the number of ATMs. All the variables had positive impact on profitability except capital risk. The main conclusion of the study was the number of ATMs increases the return on assets as it reduces transactional costs.

Athanasoglou et al (2005) used a panel of Greek banks over a period of seventeen years from 1985-2001 to examine the factors that affect banks specific factors on profitability. Return on assets (ROA) and return on equity (ROE) as dependent variables against capital, credit risk, productivity, expenses management, and bank size. Their findings were that bank size had no impact on profitability. Credit risk and expenses had significant negative relationship with profitability. They also found positive relationship between improved labour productivity and profitability.

Aljbiri (2013) studied factors that affect profitability in Libya over a period of eleven years from 2000 to 2010. He used descriptive correlation and regression analysis in addition to SPSS on internal and external factors. Return on Equity (ROE) was used as the dependent variable against portfolio composition, capital adequacy, deposits, size, GDP and CPI. The findings showed that the identified independent variables have a positive relationship with profitability.

Lipunga (2014) explored the determinant of profitability in Malawi of listed banks in Malawi for a period of five years from 2009-2013 using external and internal factors of profitability. Regression and correlation analysis was used in the study. The results showed that size of the bank, management efficiency and liquidity had statistically significant influence on return on assets whereas capital adequacy had insignificant effect. The study also established that earning yield significantly influence size of the banks, management efficiency and capital adequacy had insignificant impact on earnings yield.

Menicucci and Paulucci (2016) explored the factors affecting bank profitability over a period of ten years from 2006 -2015 in Italy. They explored the relationship between bank specific characteristics and profitability and determine the impact of internal factors achieving high profitability. 28 banks were under study through regression on un balanced dataset. Results showed that capital ratio and size have positive impact on profitability while higher assets quality affects profitability negatively.

Macharia (2016) investigated determinants of bank profitability in Kenya. 43 registered banks were included in the study for a period of six years from 2011 to 2015. Data was analysed using ordinary least squares (OLS) and the results showed that insignificant negative relationship between bank size, operational efficiency and profitability. The study concluded that higher levels of capital adequacy increases profitability and non-performing loans have a negative effect on profitability. Thus his recommendations were that managers of various banks or other financial institutions should develop policies that reduce non- performing loans, and effectively manage and reduce operating expenses for profit maximisation. He further recommended that central banks develop policies that effectively assist commercial banks to manage capital adequacy, liquidity and credit risk management thereby enhance profitability.

There are also cross country studies done on the subject matter. Below are some few empirical papers that this research looked at;-

Bourke (1989) examined factors affecting banks profitability over a period of nine years for 90 banks in North America, Europe and Australia. Return on equity and return on assets as dependent variables against liquid assets to total assets, capital and reserves as a percentage of total assets and staff expenses as a percentage of total assets as independent variables were considered. He found positive relationship between profits and capital and liquidity ratios to total assets

Athanasoglou et al, (2006) carried out a study over a period of five years in the Southern European banking industry which include the following countries;- Albania, Bosnia-Herzegovina, Bulgaria, Croatia, FYRON, Romania and Serbia- Montenegro from 1998- 2002. The study was based on return on assets (ROA) and return on equity (ROE) against loan, loss provisions to total loans ratio, expenses over total assets and bank size. Their findings were that ratio of loans to total assets and bank size had a positive impact on profitability. They also found negative relationship between banks profitability and operating expenses as well as loan loss provisions.



## **2.4 CHAPTER CONCLUSION**

This chapter looked at literature review pertaining to the subject matter. There are basically two broad factors that affect banks profitability namely internal and external factors. Internal ones which include size of the bank in form of total assets, cost control, assets structure or capitalisation, loan of customer deposits, loan loss ration or assets quality, retail network for the bank and efficiency ratio. These are the factors that management have control over. External factors are the factors that management has no control over and these include economic growth and interest rates, inflation, financial structure and industry concentration. Empirical literature has also been reviewed in developing and as well as developed counties.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0. INTRODUCTION**

This chapter presents the formulation of the research problem, the methods of data collection and analysis and why such methods were used in this research.

#### **3.1. RESEARCH PHILOSOPHY**

The research adopts the pragmatism where it involves quantitative approach on methods of data collection. No questionnaire was used in the research. Thus, quantitative methods were used in this research (Saunders, Lewis & Thornston, 2007). The main aim of this research is to understand what the critical factors that affect bank profitability in Malawi are. Internationally, research has been conducted which indicates that the following are the critical factors that affect profitability such as size of the bank, cost control, customer deposits levels, and asset quality and therefore this research investigates those views according to the local banking industry in Malawi.

#### **3.2. RESEARCH APPROACH**

The study used quantitative data collection from annual reports of eleven banks over a period of six years from 2010 to 2015.

#### **3.3. RESEARCH STRATEGY**

This research used the case study strategy. A strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence (Robson, 2002) as cited in Saunders (2007). By the end of the research, the reason why some banks make more profits than others within Malawi over a period of six years was empirically explored.

#### **3.4. SAMPLING AND POPULATION**

Data was collected from annual reports for the eleven banks chosen for this research before being analysed using ROE, cost to income ratio, capital adequacy, and loan loss ratios. A regression analysis was also conducted to investigate the extent to which the identified factors affect bank profitability in Malawi.

Stately (2003) cited by Saunders, Lewis and Thornton, (2007), argues that 30% is the minimum number of the sample. However, this research collected data from eleven out of the twelve banks over a period of six years from 2010 to 2015. New Finance Bank is the only bank whose data does not form part of this study simply because the bank was registered in 2014 and only produced annual reports for 2015 which is a too short a period. This sample represents 92 percent of the total population of banks in Malawi as at 31<sup>st</sup> December 2015 which is obviously more than the 30 percent minimum requirement (Saunders, 1997). There is no questionnaire administered as all data required for this research is public information from the annual reports. The list of banks was obtained from Reserve Bank of Malawi as registered as at 31<sup>st</sup> December 2015.

### **3.5. SAMPLE DESIGN**

#### **3.5.1. Unit of analysis**

Return on assets (ROA and return on Equity (ROE) are the dependent variables against independent variables such as bank size, cost to income ratio customer deposits and loan loss ratio. All this data was collected from annual reports of banks under the study. NFB was the only bank that was left out as it had only annual report for 2015 and therefore too new to be part of the data analysis.

#### **3.5.2. Data collection and analysis**

The study used secondary data from annual reports of the eleven banks. The research required quantitative data which is collected from accounting reports normally produced and published annually after audit. All data was for end of year report dated 31<sup>st</sup>Dec which is a requirement by Reserve Bank of Malawi for easy comparison. Hence there were no interviews conducted in this study. Data was analysed through excel and regression analysis.

#### **3.5.3. Validity, reliability and ethics**

Data for all banks was obtained from annual reports from Reserve Bank of Malawi which is an independent organisation. The data is very reliable since banks are audited by external and professional auditors which follow international standards. Banks are also supervised and monitored by Reserve bank of Malawi hence their data is reliable and of international standard and it's a regulatory body mandated for such functions in Malawi. Since data used were already public information, there was no need for consent from the individual banks

however names of the banks on the analysis have remained confidential (i.e. represented as Bank A, Bank B etc.) and there was no questionnaire.

### **3.6 CHAPTER SUMMARY**

This chapter has looked at the research problem is the banking industry in Malawi, the methods of data collection which was secondary data from annual reports of eleven banks over a period of six years from 2010 to 2015. The research used normal excel and regression analysis and why these methods were used.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.0. INTRODUCTION

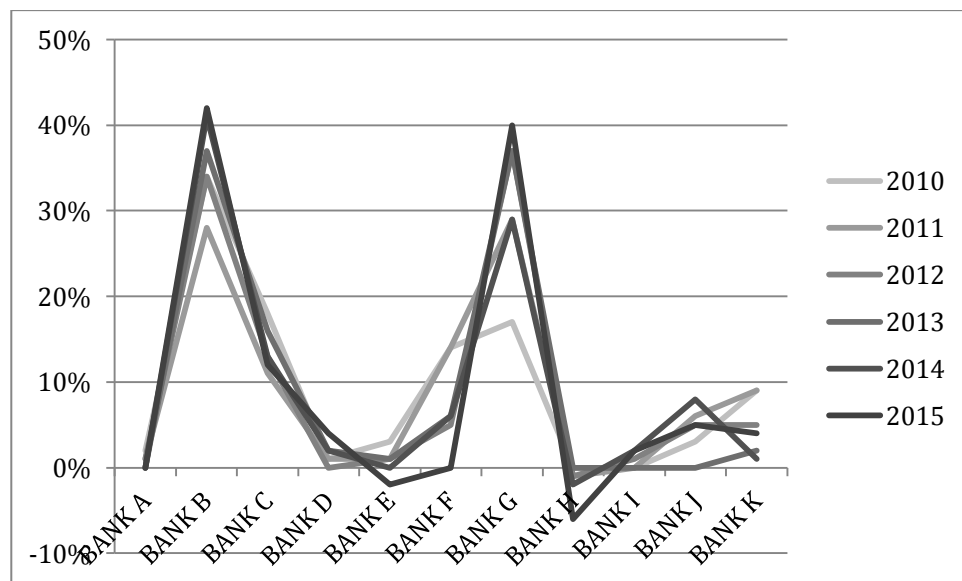
This chapter gives a detailed account of the findings surrounding the factors that affect profitability of banks in Malawian. Data used in this study was collected from various annual reports of individual banks through Reserve Bank of Malawi and some were collected from Bankers Association of Malawi which is a mother body for all banks in the country.

#### 4.1. DISCUSSIONS OF THE RESULTS

The study looked at size of banks through total assets; cost-income ratio; customer deposits and loan loss ratio are considered against return on assets (ROA) and Return on equity (ROE). However, before discussing these ratios, first, the profit trend for eleven banks registered with the Reserve Bank of Malawi for the period under review is presented.

#### 4.2. PROFITS

The aim of this study was to explore which and to what extent factors affect bank profitability in Malawi, particularly between 2010 and 2015. It is therefore important to, before going into the gist of the matter, consider the bank profit trend for the period under review. Table 4.1 below shows the distribution of profits within the eleven banks under consideration. These profits are expressed as a percentage of the banking industry.



**Figure 0.1: Bank profits in Malawi (2010-2015) expressed as an industry share**

From figure 4.1 above, it can be appreciated that over the years between 2010 and 2015, profit trends amongst the Malawian banks had variations. Firstly, there are some banks, particularly the big ones such as Bank B and Bank G that consistently made profits albeit experiencing some reduction in profits in some years. For instance, as an industry share, Bank G went up from 29% to 40% between 2014 and 2015, Bank B profits went down from 34% to 28% between 2010 and 2011 started to grow again from 34% to 42% between 2012 and 2015. Interestingly several banks such as Bank C, Bank F, Bank K and Bank A profitability has been decreasing over the years against the industry. Some banks such as Bank D and Bank I, their probability show a positive trend though with smaller percentages over the years i.e. Bank D grew from 1% to 4% over the period under review while Bank I made 0% in 2010 and progressed over the years to 2% profitability against the industry in 2015.

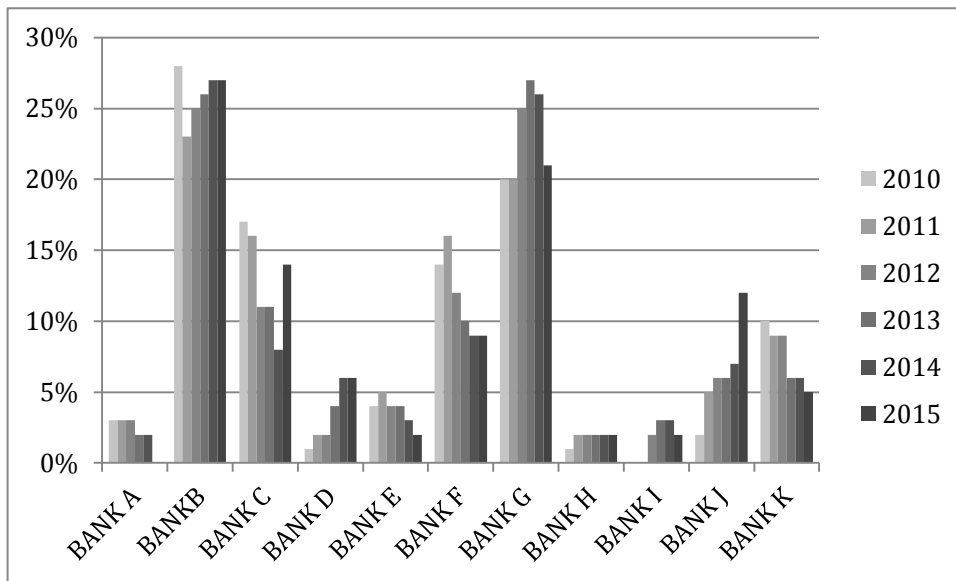
Secondly, some banks, particularly those that can be regarded as neither big nor small, experienced major fluctuations in their profit trends despite maintaining some profits. Such banks include Bank K, Bank J, Bank D, Bank I and Bank C. The respective profits for these banks varied greatly with some making relatively larger profits than others. However, the common denominator about them is that their profit margin oscillated significantly from one year to another. Actually some banks such as Bank A's profitability in 2013 to 2015 and Bank I from 2010 to 2014, they had 0 percentages. This means that their profitability was negligible compared to the industry.

Finally, some banks, especially the small ones had a tough time between 2010 and 2015. A case in point is Bank H, which, during the six-year period, posted insignificant profits against the industry in 2010 and 2013. It made the highest loss of 6% against the industry in 2015. Bank E is another example. Although the bank made small profits most of the times, its margins were consistently nose-diving before it finally hit a loss of 2 percent in 2015. The other bank that limped a lot is Bank A, which in 2010 made 2% profit against the industry, the rest of the years; it made the insignificant profit and eventually made a 2% loss in 2015. The link between bank profits and other variables is explored further in the proceeding sections.

### **4.3. RETURN ON ASSETS**

Return on Assets (ROA) is an important aspect of measuring profitability for banks. According to Naceur (2003), ROA measures the profit earned per dollars of assets which reflects banks management ability to utilise resources to generate profits. It is calculated by dividing net income after tax by total assets. However, for purposes of the research, operating

profit is used to measure ROA. Figure 4.2 below shows the ROA for the Malawian banks from 2010 to 2015.

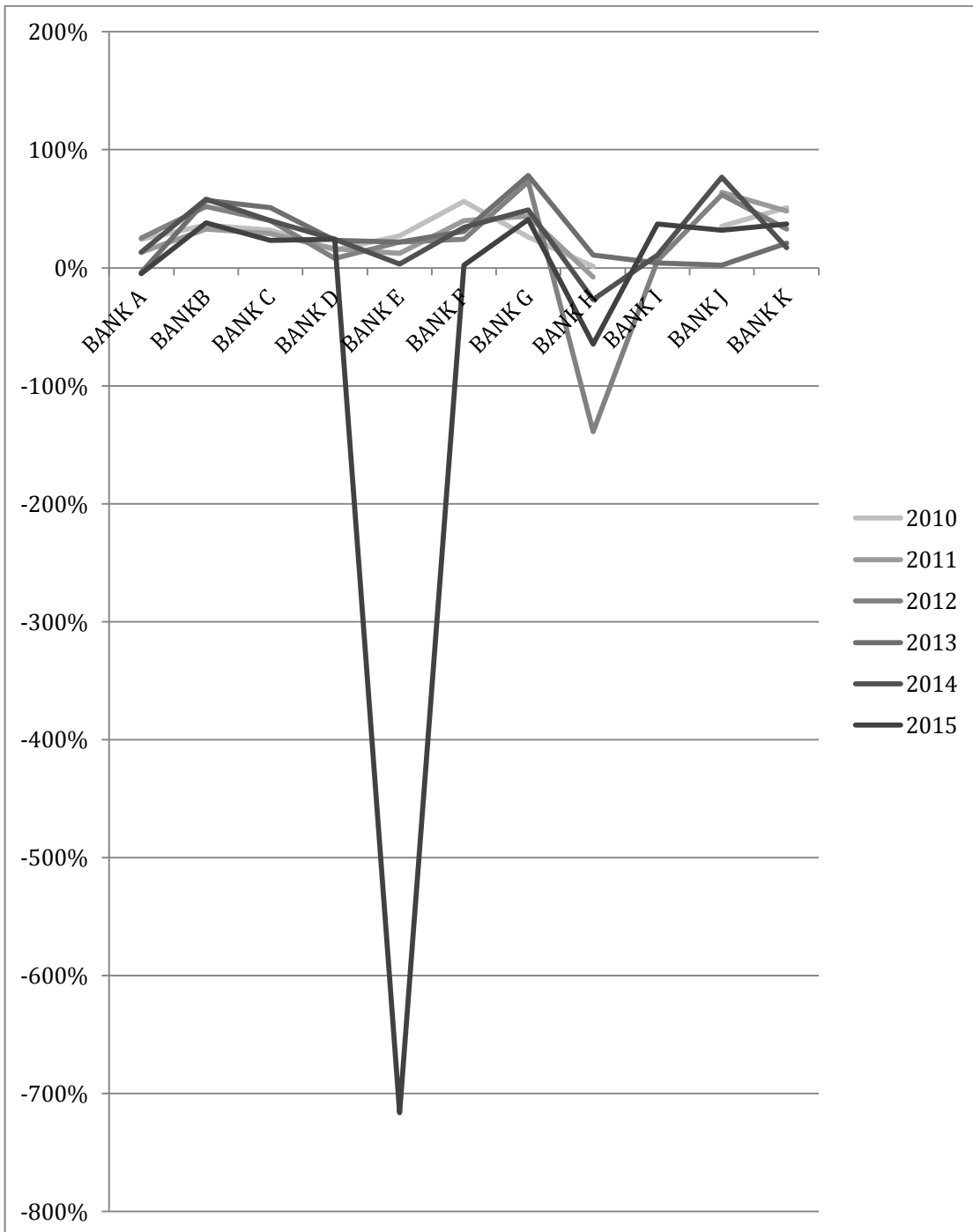


**Figure 0.2: Return on Assets for banks in Malawi (2010-2015)**

From Table 4.2 above, it can be noted that Bank B and Bank G, Bank C, and Bank D, in order of their values in assets from the biggest, are actually the ones that had high ROA over the period 2010 to 2015. For instance, in 2015, ROA for these banks stood at 25 percent, 23 percent, 15 percent and 10 percent, respectively. On the other hand, Bank A, Bank E and Bank H registered the lowest ROA when compared to the industry averages. These banks are also the ones that made losses in 2015. This confirms the fact that the size of the bank, in terms of total assets value, affects profitability as asserted by Topak and Talu (2016). However, there is one caveat. Despite having large assets similar to other big banks, Bank F incurred a loss and its ROA ratio was not high in 2015. This may also mean that negative inertia may have crept into the operations of the bank which affected its profitability as argued by (Kosmidou,2008).

#### 4.4. RETURN ON EQUITY

This study further scrutinised return on equity ROE which shows the profit generated for the shareholders. It measures profits against the equity.



**Figure 4.3 Return on Equity (ROE) over the industry**

From the figure 4.3 above, it can be appreciated that over the years between 2010 and 2015, ROE trends amongst the Malawian banks have been a mixed bag. Firstly, there are some banks, particularly the big ones such as Bank Band Bank G bank that consistently made profits albeit experiencing some reduction in ROE. For instance, as an industry share, Bank B ROE went down from 58 percent in 2014 to 38 percent in 2015 ROE for Bank G dived down 78 percent in 2013 to 49 percent in 2014 before reaching 41 percent in 2015. The dive could



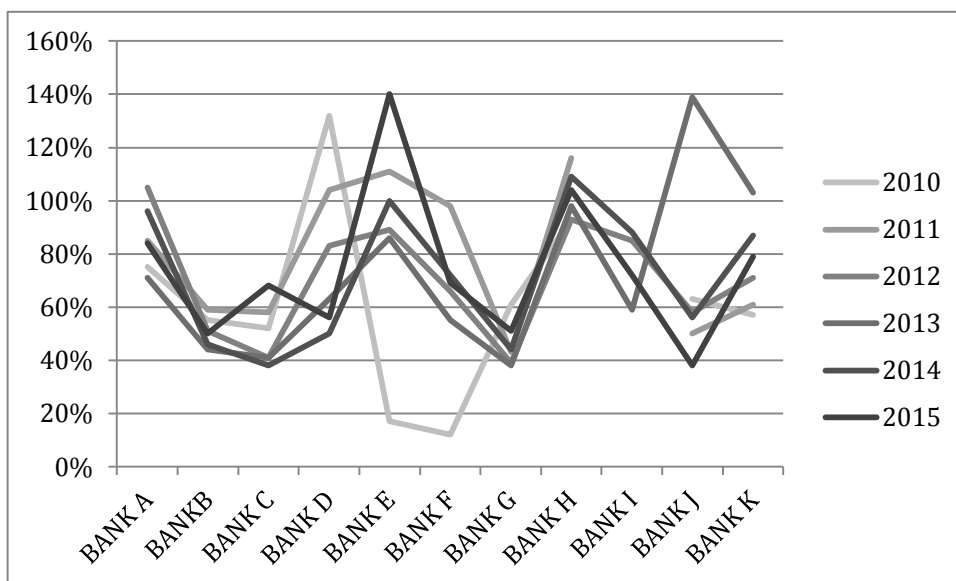
be linked to some macroeconomic challenges such as the weakening of the Malawi currency against its major trading partners, which soared the cost of living in the country since Malawi is predominantly an importing country. This affected negatively five banks namely Bank D (16% to 8%), Bank F (40% to 24%) Bank H,(-8% to -139%),Bank J (64% to 62%) and Bank K (48% to 33%) over the years between 2011 and 2012.

Secondly, some banks, particularly those that can be regarded as neither big nor small, experienced major fluctuations in their profit trends despite maintaining some ROE. Such banks include Bank J, Bank K, Bank D, Bank I and Bank C. The respective ROE for these banks varied greatly with some making relatively larger profits than others. However, the common denominator about them is that their profit margin oscillated significantly from one year to another.

Finally, some banks, especially the small ones had a rough time between 2010 and 2015. A case in point is Bank H, which, during the six-year period, posted positive ROE only twice – 1 percent in 2010 and 11 percent in 2013. Bank E is another example. Although the bank made profits most of the times, its margins were consistently nose-diving before it finally hit the highest in the industry loss of (716) percent in 2015. The other bank that limped a lot is Bank A, which in 2013 incurred a 4 percent loss followed by a 5 percent loss in 2015. The link between bank profits and other variables is explored further in the proceeding sections.

#### **4.5. EFFICEIENCY AND COST CONTROL (COST – INCOME RATIO)**

There is a growing literature suggesting that management efficiency in controlling costs has an impact on the profitability of the banks. This is likely one of the strong factors that played into the way Malawian banks accrued their profits during the period of this study's review. Table 4.3 below shows the cost-income ratios for banks between 2010 and 2015.



**Figure 4.3 Cost to Income Ratios in the banking Industry**

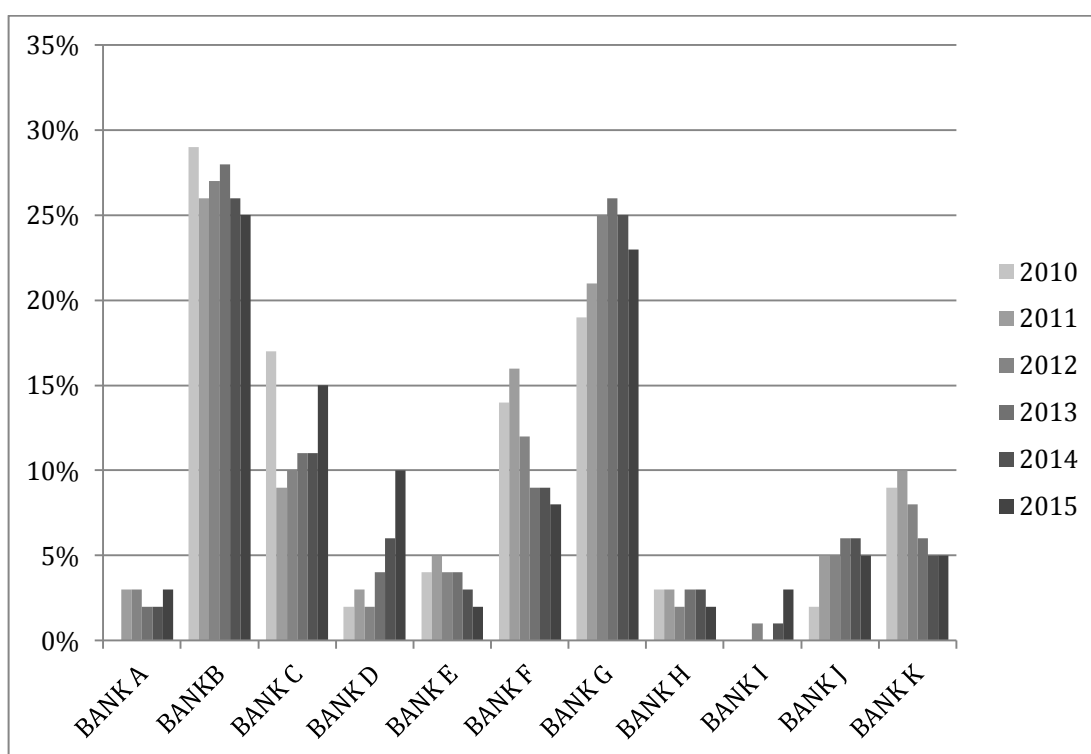
From Table 4.3 above, it appears that small banks had very high cost-income ratios, most of them close to 100 percent or above. All banks that have had high cost-income ratio have also struggled with losses. For instance, in 2015, the cost-income ratio for Bank E stood at 140 percent, Bank H stood at 109 percent and Bank A at 84 percent.

The industry average cost-income ratio during the years under review was 70 percent and all banks whose income-ratios were above the industry average incurred losses, except for Bank I. It is also interesting to note that although Bank F had 69 percent of cost-income ratio, the bank made a loss in 2015. This may well explain the fact that bureaucracy and other challenges may have come in apart from just controlling costs as factors that affect profitability.

The banks that controlled their costs made profits. For instance, Bank B and Bank G were consistent in terms of cost control throughout the years under review. These banks had their cost-income ratios below 60 percent. Other banks such Bank C, Bank J, Bank C and Bank I also managed to control their expenses. This confirms the assertions by Bourke (1989), Vong and Chan (2006) and Jiang et al. (2003) that banks that operate at a lower cost structure tend to make more profits than those that fail to control their costs. Similar results were identified by Topak & Talu (2016), Athanasoglou et al (2005) as well as Akbas (2012). Macharia (2016) in Kenya also found similar results that cost negatively affect profitability of banks. Therefore the results are consistent with available literature.

#### 4.6. DEPOSITS RATIOS

According to Trujillo and Ponce (2013), banks that hold more client deposits tend to have an advantage which translates into profitability. The reason is that such banks get cheap deposit to manage their liquidity compared to those that may not have access to the same. Table 4.4 below shows the deposit ratios for banks between 2010 and 2015.



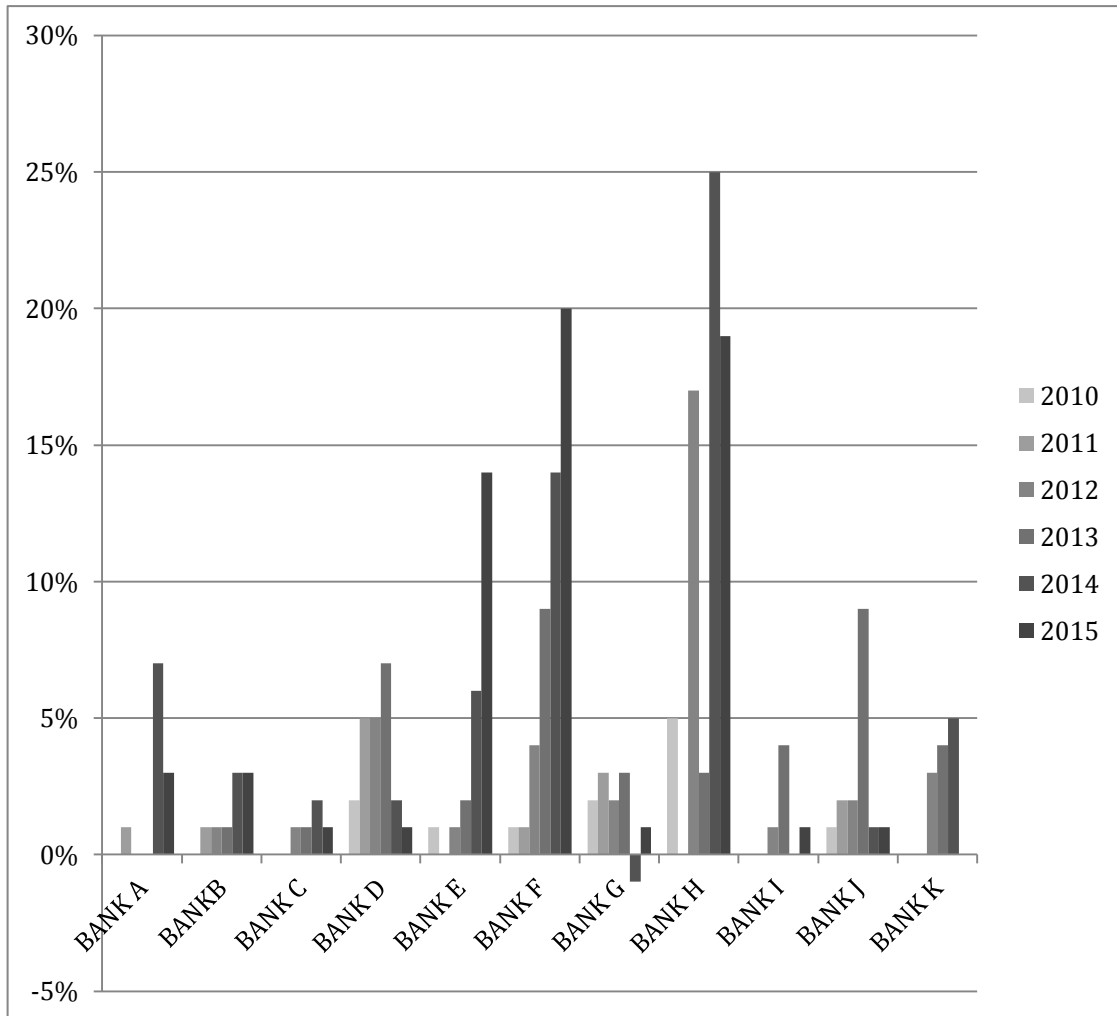
**Figure 0.3: Deposit ratios for banks in Malawi (2010-2015)**

From Figure 4.4 above, it seems big banks such as Bank B, Bank G, Bank C and Bank J had large deposit ratios of 27 percent, 21 percent, 14 percent and 12 percent, respectively of the total client deposits from the industry. These banks are also the ones that had better profits in the industry, confirming the proposition of Trujillo & Ponce (2013) above. Their study found out that clients deposits has a positive relationship with profitability as they funds are lent out for better margins as well as affecting banks capacity to manage negative shocks. Same views have been shared by Tupak & Talu (2016), Berger (1995) and Anghazo (1997). Therefore the study results are consistent with available literature.

#### 4.7. LOAN LOSS RATIO

There is also a growing literature which suggests that banks that manage quality loan portfolio make better profits. Loan-loss provision ratio measures capital risk and credit quality

of banks. According to Mustafa, Riaz and Muhammad, (2012), banks that are operating in risky environments tend to lack control over lending operations, which results in higher loan-loss provisions to cover the risk. Therefore, the loan-loss ratio is expected to have a negative relationship with profitability. Figure 4.5 below shows the loan-loss ratios for banks between 2010 and 2015.



**Figure 4.5 : Loan Loss ratio of banks in Malawi ( 2010-2015)**

As it can be observed in Table 4.5 above, between 2010 and 2015, there were a number of banks that had very low loan-loss ratios. For instance, Bank D, Bank G, Bank I and Bank J had 1 percent provisions in 2015. These banks are the ones that made profits. On the other hand, the loan-loss ratios for Bank E, Bank F and Bank H stood at 14 percent, 20 percent and 25 percent, respectively; and they are the ones that made losses in 2015. It's also interesting to note that Bank A, Bank C, Bank K, Bank H had 0 loan loss percentages in 2010 & 2012, 2010 & 2011, 2010 & 2011, 2011 and 2011 respectively. The negative relationship between loan-

loss ratio and bank profitability as shown in the above table underscores the argument by Vong and Chan (2006) that provisions tend to have negative effect on bank profitability. Similar studies have been done by Athanasoglou et al (2005), Hussein & Bashir (2003) and results from this study are consistent that loan loss affects profitability negatively. The most recent and similar developing economy like Kenya, Macharia, (2016) also found same results.

#### 4.8. REGRESSION ANALYSIS

In this section, the focus is on regression analysis where model specification and discussion of results are presented. The generic log linear model that is used to estimate how various factors affect bank profitability in Malawi is expressed as follows:

$$\ln y_{it} = \alpha_i + \sum \ln \beta_i x_{it} + \varepsilon_{it} \quad (1)$$

Where,  $y_{it}$  is the dependent variable, i.e., profits of bank  $i$  in year  $t$ ;  $x_{it}$  is a  $k$ -dimensional row vector of time-varying explanatory variables;  $\alpha_i$  captures unobserved, time dependent factors that may influence the dependent variable – hence it is also referred to as unobserved heterogeneity;  $\beta_i$ , coefficient(s) for the independent variables, represents a  $k$ -dimensional column vector of parameters. Finally,  $\varepsilon_{it}$  is an error term, also known as an idiosyncratic error or time-varying error, which varies over time and affects the dependent variable. Many researchers tend to include an  $m$ -dimensional row vector of time-invariant explanatory variables (e.g, Bell & Jones, 2015; Guo & Guo, 2016; Hausman & Taylor, 1981; Schmidheiny, 2016; Williams, 2015).

In this study, the independent variables include bank assets, cost, income, equity, loan-loss, loan and deposits. Real exchange rate (rer) – calculated against the United States dollar – is also included notably as an exogenous variable. As shown in the previous section, a positive coefficient is expected from bank assets because the larger the banks (or the more the bank assets), the more the profits. Income, equity, loan and deposits are also expected to have positive coefficients as an increase in any of these variables is likely to propel profitability in banks. On the other hand, costs and loan-losses are expected to be negatively related to profitability. The effects of real exchange rate on bank profitability tend to be mixed. Currency appreciation may on the one hand propel bank profits if the economy benefits through domestic production arising from, for instance, low cost of importation. On the other hand, when a domestic currency appreciates, it may hurt the domestic economy such as through contraction in exports of some products which could negatively affect bank

profitability. A more detailed picture regarding the expected signs of the regressors is covered by Alhassan et al. (2016). A summary of these variables is provided in Table 4.6 below.

**Table 0.1 A summary of the model variables (2010-2015)**

Variable		Mean	Std. Dev.	Min	Max	Observations	
id	overall	6	3.18651	1	11	N =	66
	between		3.316625	1	11	n =	11
	within		0	6	6	T =	6
year	overall	2012.5	1.720912	2010	2015	N =	66
	between		0	2012.5	2012.5	n =	11
	within		1.720912	2010	2015	T =	6
profit	overall	11.31578	16.19207	-6.35	59.6	N =	64
	between		15.70504	-1.753333	43.76667	n =	11
	within		5.538455	-10.47089	27.48911	T-bar =	5.81818
assets	overall	183.7334	168.1316	6.84	601.31	N =	64
	between		165.5562	41.81333	523.4917	n =	11
	within		51.47081	55.95178	327.7618	T-bar =	5.81818
cost	overall	71.96281	442.2251	1.32	3553	N =	64
	between		176.8769	4.4075	601.875	n =	11
	within		407.3179	-525.3522	3023.088	T-bar =	5.81818
income	overall	29.06547	28.67703	2.28	103.34	N =	64
	between		28.57294	5.9825	86.745	n =	11
	within		7.825506	9.800472	55.2438	T-bar =	5.81818
equity	overall	29.01172	31.96342	.3	121	N =	64
	between		31.77709	4.86	96.98833	n =	11
	within		8.827126	-3.556617	59.93172	T-bar =	5.81818
loanloss	overall	2.067005	2.71253	-1.57	13.7	N =	63
	between		1.990002	.220075	6.916667	n =	11
	within		1.905821	-3.609662	8.850338	T-bar =	5.72727
loans	overall	93.20359	88.292	8.59	321.69	N =	64
	between		83.54922	15.45333	249.73	n =	11
	within		36.25914	9.263591	202.8386	T-bar =	5.81818
deposits	overall	139.1155	129.5741	4.5	490.84	N =	64
	between		124.981	26.49667	383.015	n =	11
	within		47.43786	24.44047	264.9638	T-bar =	5.81818
rer	overall	421.05	290.3241	121.4	912.3	N =	66
	between		5.96e-14	421.05	421.05	n =	11
	within		290.3241	121.4	912.3	T =	6

All independent variables except the real exchange rate (*rer*) are in millions of Malawi Kwacha. Of much importance at this point are the between and within-variations. The between-variation measures the time-invariant differences in values between various individuals (Sahlan, 2017) while the within-variation measures the individual (a specific bank) differences in the mean values over time (in this case, from 2010 to 2015). It is striking to note that generally there are significantly large between and within-variations amongst the variables. This underscores the already highlighted point that, particularly regarding profits, assets, cost, income, equity, loans and deposits, there are major differences amongst banks in Malawi. However, as far as loan-losses are concerned, the differences amongst banks are not very significant, implying that between 2010 and 2015 either it was usually the small banks that incurred losses or most of the banks did not make losses; however, the former is more plausible as shown earlier.

Notable differences in the within-variation suggest that nearly all banks experienced significant changes between 2010 and 2015. For instance, it can be fathomed that although some banks made huge profits (predominantly the big ones), the within-variation suggest that many others, particularly, the small ones, incurred losses or significant fluctuations in their profits. The within-variation for loan-losses may underscores the point alluded to earlier that a sizable number of banks in Malawi experienced a steady increase in loan-losses. In the following section, the focus is on model estimation.

#### **4.9. MODEL ESTIMATION AND INTERPRETATION OF RESULTS**

In this section, regression analysis is conducted to test the extent to which bank assets, cost, income, equity; loan-loss, loan, deposits and real exchange rate (*rer*) affect bank profitability in Malawi. As indicated earlier, panel data from 2010 to 2015 are employed. Panel data models explain individual behaviour both across time and across individuals (Brænder & Bøgh Andersen, 2014; Torres-Reyna, 2007). Usually three approaches, namely the pooled model, the fixed effects model and the random effects model are used; and these are hereafter explained using their respective estimators (Frees, 2004).

##### **4.9.1 Pooled OLS estimator**

This estimator can be expressed as:  $y_{it} = \alpha + \beta x_{it} + (\alpha_i - \alpha + \varepsilon_{it})$  (2)

Where, all the variables are as defined in equation (1) above. However, notably, the subscript *i* is missing for  $\beta$  because it is regarded as the average coefficient (Williams, 2015).



The pooled estimator uses the between and within variations to estimate the parameters. However, its major weakness is that it assumes no differences between groups. In the case of this study, the pooled OLS model estimator would assume no differences between different banks in the country, which could be a major shortfall. As such this model is seldom used in regression analyses and neither is it adopted in this study.

#### 4.9.2. Between estimator

This estimator can be expressed as:  $\bar{y}_i = \alpha + \beta\bar{x}_i + (\alpha_i - \alpha + \bar{\varepsilon}_i)$  (3)

Where, all the variables are as defined previously. However, now the model uses time averages of all variables – evidenced by the bars above the variables. This is because the between estimator only uses the between-variation across individuals. In other words, this is an estimation of time-averaged dependent variable on time-averaged independent variables for each individual. Generally, this is its limitation hence, as is the case with the pooled OLS estimator, it is also hardly employed (Williams, 2015).

#### 4.9.3. Fixed effects estimator

This estimator can be expressed as:

$$y_{it} - \bar{y}_i + \bar{y} = \alpha + \beta(x_{it} - \bar{x}_i + \bar{x}) + (\varepsilon_{it} - \bar{\varepsilon}_i + \bar{\varepsilon}) \quad (4)$$

Where, all the variables are as defined previously. The major limitation with this estimator is that time-invariant variables are dropped from the model and their coefficients are not identified (Bell & Jones, 2015; Greene, 2001). Despite its limitation, the estimator is usually employed for regression analysis.

#### 4.9.4. First differences estimator

This estimator uses the one-period change for each individual (first-differenced variables). In other words, it is an estimation of the one-period changes of the dependent variable on the one-period changes of the independent variables (UNC, 2017). Therefore, the estimator is usually expressed as:

$$y_{it} - \bar{y}_{i,t-1} = \beta(x_{it} - \bar{x}_{i,t-1}) + (\varepsilon_{it} - \bar{\varepsilon}_{i,t-1}) \quad (5)$$

Where, all the variables are as defined in equations previously. Here, the individual-specific effects  $\alpha_i$  cancel out and the first observation for each individual is lost due to differentiating.

Just as is the case with the fixed effects estimator, the major limitation with this estimator is that time-invariant variables are dropped from the model and their coefficients are not identified. Despite its limitation, the estimator is usually employed for regression analysis.

#### 4.9.5. Random effects estimator

Under this estimator the individual-specific effects  $\alpha_i$  are part of the error term (Bell & Jones, 2015; Schmidheiny, 2016). The estimator is usually expressed as:

$$y_{it} - \tau \bar{y}_i = (1 - \tau)\mu + \beta(x_{it} - \tau \bar{x}_i) + \epsilon_{it} \quad (6)$$

$$\epsilon_{it} = (1 - \tau)\alpha_i + (\varepsilon_{it} - \tau \bar{\varepsilon}_i) \quad (7)$$

$$\tau_{it} = 1 - \sigma_\varepsilon / \sqrt{\sigma_\varepsilon^2 + \sigma_\alpha^2} \quad (8)$$

Where, all the variables are as defined in preceding equations above. It is worth noting that when  $\tau = 0$ , the model is similar to pooled OLS estimator of equation 1 while if the  $\tau = 1$ , the model is just like the fixed effects estimator. In general, the random effects estimates are a weighted average of the between and within estimates.

Table 4.7 below provides a summary of the models and their respective characteristics of the model estimators.

**Table 0.9.1. Summary of panel data models and estimators**

	<b>Model</b>		
<b>Estimator</b>	Pooled model	Random effects model	Fixed effects model
Pooled OLS estimator	Consistent	Consistent	Inconsistent
Between estimator	Consistent	Consistent	Inconsistent
Fixed effects estimator	Consistent	Consistent	Consistent
First differences estimator	Consistent	Consistent	Consistent
Random effects estimator	Consistent	Consistent	inconsistent

From Table 4.9.1 above, it can be observed that it is only the fixed effects estimator and first differences estimator that give consistent estimates across all models. There seems to be very little debate amongst researchers regarding which estimator to choose between the fixed effects estimator and the first differences estimator. However, the choice between fixed effects estimator (FE) and random effects estimator (RE) is usually an issue of hot debate amongst researchers. For instance, Greene (2001, p. 1) argues that “notwithstanding their methodological shortcomings, fixed effects are much more practical than heretofore reflected in the literature.” On the other hand, Bell and Jones (2015, p. 134) contend that “we take the strong, and rather heterodox, view that there are few, if any, occasions in which FE modelling is preferable to RE modelling... RE would be the preferred choice because of its greater flexibility and generalizability, and its ability to model context, including variables that are only measured at the higher level.”

Despite the disagreements, a rule of thumb is that the choice between the two estimators should be determined by whether or not one presumes that there are unobserved, individual specific (and time-invariant) factors that impact one’s outcome and are correlated with the regressors. If there are, then FE is a preferable estimator otherwise RE is preferable. Other researchers, such as Torres-Reyna (2007), have suggested conducting the Hausman test to determine the preferable estimator between FE and RE.

In this study all the three, the fixed effects estimator, the first differences estimator and the random effects estimator were run. However only results from the first differences estimator

are discussed while those from the other two (FE and RE) are included in Appendix 1. The reason for this is as highlighted above that when faced with fixed effects estimator and random effects estimator, some researchers recommend conducting Hausman test to determine which estimator is appropriate (Torres-Reyna, 2007). The assumptions are as follows.

Null Hypothesis (HO): Random effects estimator is appropriate

Alternative Hypothesis (HA): Fixed effects model is appropriate

Results of the Hausman test are as reported in Table 4.8 below.

**Table 0.9.2 Hausman test results**

	— Coefficients —		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
lnassets	.1383223	-.1947095	.3330318	.1502535
lncost	-.0315863	.0522544	-.0838407	.0273582
lnincome	1.064048	.1886458	.8754019	.3422555
lnequity	.2154834	.9151752	-.6996918	.2923469
lnloanloss	-.1522013	-.1317256	-.0204757	.048508
lnloans	.7737348	.2561684	.5175664	.321405
lndeposits	-.7431117	.4936343	-1.236746	.389306
lnrer	-.146399	-.0709785	-.0754205	.0823454

```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

      chi2(8) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
            =      10.41
Prob>chi2 =      0.2371
(V_b-V_B is not positive definite)

```

The Hausman test results have a very high P-value (0.2371). This implies that the null hypothesis (that the random effects estimator was appropriate) could not be rejected. In other words, the fixed effects estimator was dropped in favour of the random effects model.

However, after conducting regression analysis using RE, rho was equal to zero – as shown in Appendix 1 – which implied that the proportion of the variation due to individual specific terms was zero. In other words, all the variations could be attributed to the idiosyncratic error thus the explanatory power of the estimator was very poor. That being the case, only the first

differences estimator was used to explain the effects of the factors that affect bank profits in Malawi and the results are as shown in Table 4.10 below.

**Table 0.4.3: First differences results on factors that affect bank profitability in Malawi**

Source	SS	df	MS	Number of obs	=	42
Model	36.51998	8	4.5649975	F(8, 34)	=	7.01
Residual	22.1550192	34	.65161821	Prob > F	=	0.0000
				R-squared	=	0.6224
				Adj R-squared	=	0.5336
Total	58.6749991	42	1.39702379	Root MSE	=	.80723

D.lnprofit	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
lnassets Dl.	-.0581056	.3276491	-0.18	0.860	-.7239687 .6077575
lncost Dl.	.1528127	.0912006	1.68	0.103	-.0325292 .3381546
lnincome Dl.	.7176973	.5064308	1.42	0.166	-.3114938 1.746888
lnequity Dl.	2.834752	.6401157	4.43	0.000	1.533881 4.135624
lnloanloss Dl.	-.125426	.0689165	-1.82	0.078	-.2654812 .0146292
lnloans Dl.	1.016257	.4729776	2.15	0.039	.0550507 1.977463
lndeposits Dl.	-2.402049	.5223037	-4.60	0.000	-3.463497 -1.3406
lnrer Dl.	-.0047093	.3123176	-0.02	0.988	-.639415 .6299963

From the regression results above, the overall performance of the models can be described as very good. The P-value (0.0), suggests a very good model fit with all the coefficients being non-zero. The value of the adjusted R-squared indicates that the regressors explained about 53 percent of bank profits in Malawi which is a sound explanatory power.

On the one hand, of the eight regressors, five, namely equity, loan-losses, loans, deposits and costs are statistically significant. Equity and deposits are statistically significant at 1 percent level; loans are statistically significant at 5 percent level while loan-losses and costs are statistically significant at 10 percent level. However, it is worth noting that even at 10 percent level, cost is barely significant and the positive sign for its coefficients is not as expected so

its interpretation proceeds with care. On the other hand, bank assets, income and real exchange rates (rer) are statistically insignificant.

#### **4.9.6 Discussion of results**

At this juncture, discussion of results builds on what has already been discussed in section 4.1 albeit with a focus on the regression carried out in this section. The starting point is to do with equity. According to Molyneux and Thornton (1992), there tends to be a significant positive relationship between the return on equity and profitability. The positive sign of the coefficients and strong statistical significance of equity from the regression analysis underscores this assertion. Equity is basically the capital structure of the bank. It shows how a bank is financed and its capacity to cover the losses (Hassan & Bashir, 2003). Well capitalised banks tend to be regarded as less risky, which, in turn, translates into higher profitability while less capitalised banks tend to be regarded as riskier, which tends to lead to poor profitability (or losses). Unfortunately, in developing economies, such as Malawi, equity can be a significant bottleneck which means small banks are likely to remain small and riskier hence more likely find themselves on the side of loss-making than profit-making.

The other two variables that have registered very strong statistically significant levels are deposits and loans. Interestingly, these two variables tend to go hand in hand. Customer deposits determine the liquidity risk for banks. As discussed in the literature review, there is a need to maintain a certain minimum level of loans to deposits level to ensure that banks do not face cash flow challenges to meet their immediate payments. For instance, in Malawi, in order to manage this aspect, the RBM requires that only up to 74 percent of deposits should be lent out as loans (Reserve Bank of Malawi, 2015). This means that Malawian banks that are liquid enough are likely to make profits, via, among others, issuance of bank loans. These findings resonate with Topak and Talu (2016), who postulated that the ratio of interest from loans to interest on deposits had a positive effect on profitability. However, caution must be taken because, according to Alexiou and Sofoklis (2009), very high liquid assets may lower profitability of the banks as their margins are generally low compared to the risky investments. This may justify the negative sign of the coefficients of deposits in this study. The bottom line is that Malawian bank management needs to take responsibility of balancing the ratios to maximise profits.

Finally, loan-losses and costs are the last two factors that are statistically significant, with the latter just barely. As discussed earlier, a number of researchers have suggested that banks that

manage quality loan portfolio tend to make better profits. Loan-loss provision ratio measures capital risk and credit quality of banks. According to ul Mustafa et al. (2012), banks that are operating in risky environment tend to lack control over lending operations, which results in higher loan-loss provisions to cover the risk. Therefore, the loan-loss ratio is expected to have a negative relationship with profitability. With regard to costs, banks that better manage their costs tend to make more profits. For instance, as shown earlier, Bank B and Bank G were consistent in terms of cost control throughout the years under review and unsurprisingly maintained high profits. Once again, this confirms the assertions by a number of researchers including Bourke (1989), Vong and Chan (2006) and Jiang et al. (2003) that banks that operate at a lower cost structure tend to make more profits than those that fail to control their costs. It is therefore incumbent on the Malawian bank management, especially from small ones, to ensure that loan-losses and cost controls are carefully managed. It is worth appreciating the fact that the interpretation of costs makes sense only if the sign of its coefficient is negative. In the case of this study's finding costs do not auger very well with theory let alone the variable is barely statistically significant.

#### **4.10.CHAPTER SUMMARY**

The purpose of this chapter was to conduct analyses and discuss the findings regarding factors that affect bank profitability in Malawi. The key factors that were considered include loan-losses, loans, deposits, costs, bank assets, income and real exchange rates. First, it has been noted that several banks including Bank B Bank G, Bank C, and Bank D, registered high ROA over the period 2010 to 2015. Unsurprisingly, banks with high ROA also registered high profits. Similarly, banks that had low cost-income ratio, low loan-loss ratio and high deposit ratio managed to register high profits.

Regression results indicate that equity, loan-losses, loans, deposits and costs are statistically significant while bank assets, income and real exchange rates, are statistically insignificant. Equity and deposits are statistically significant at 1 percent level; loans are statistically significant at 5 percent level while loan-losses and costs are statistically significant at 10 percent level. However, cost is barely significant and the positive sign for its coefficients is not as expected so its interpretation proceeded with care.

Based on the results, it has been suggested that bank managers in Malawi, especially from small ones, need to ensure that loan-losses and cost controls are carefully managed. Furthermore, bank managers need to take responsibility of balancing the ratio of interest from loans to interest on deposits to maximise profits. Regarding equity, unfortunately, in

developing economies, such as Malawi, the issue can be a significant bottleneck which means small banks are likely to remain small and riskier hence more likely to incur losses than make profits.



## **CHAPTER FIVE**

### **CONCLUSION AND RECOMENDATIONS**

#### **5.0 INTRODUCTION**

This chapter presents conclusion and recommendations made from the study of factors that affect banks profitability in Malawi conducted among eleven banks over a period of six from 2010- 2015. Section 5.1 below cover the conclusion and recommendations are covered in 5.2. Limitations and suggestions for further research are handled under sections 5.3.

#### **5.1 CONCLUSION**

In conclusion, the results of the research have addressed the research objectives and questions. The research overall objective was to assess factors that affect banks profitability in Malawi for a period of six years from 2010 to 2015. The data were collected from annual reports of the eleven banks out of twelve particularly income statement and balance sheets reports and analysed through Microsoft Excel package and regressions analysis.

The study found out that capital adequacy has got a positive impact on bank profitability in Malawi. Based on the same, the study concludes that capital plays a crucial role in determining commercial banks profitability and the higher capital levels increase profitability in banks.

The study found out that cost to income ratio is negatively related to profitability. This shows that higher cost to income ratio reduces the profits. Therefore the study concludes that poor cost control adversely affect profitability.

The findings of this study established that customer's deposits affect profitability of commercial banks in the country. This shows that customer deposits provide adequate funding for lending which improves interest income and eventually profitability. The study therefore concludes that high levels of customer deposits provide adequate funds to be lent out which eventually positively affect banks profitability

The findings on the last variable considered under the research being loan loss ratio are that there is a negative relationship with profitability. Loan losses are provisions and are deducted

directly from profits due to poor quality of credit portfolio. The study concludes therefore that an increase in loan loss affect adversely profitability of banks.

## **5.2 RECOMMENDATIONS**

In view of the results of the research and the literature reviewed, the following recommendations are made to banks in general, management shareholders and other stake holders

The study concluded that higher capital adequacy increases profitability. Reserve Bank of Malawi as well as shareholders and directors of banks must formulate effective polices on capital and credit risk management to assist commercial banks to excel in profitability and manage negative risks in the industry

The study has shown that customer deposits boost profitability and therefore the study recommends management and other stakeholders to attract and retain cheap and more deposits to maximise on bank's profitability

The study also concluded that cost to income ratio through poor management of operating expenses reduce bank profitability. The study hence recommends stringent and effective management of expenses to enhance profitability and long run survival of the banks which in long run affect overall country's economy.

The results of the study shows that poor credit management affects profitability negatively hence management and all stakeholders should take heed and effectively manage credit risk

## **5.3 STUDY LIMITATION AND POSSIBLE RESEARCH AREAS**

The research involved eleven banks out of the twelve banks. NFB is left out due to its one year period of operations during the years of this study. In order to determine the factors that affect bank profitability, data is analysed against four critical areas namely size of capital, cost to income ratio, customer deposits and loan loss ratio. The research looked at data that is quantitative; however there are other issues that may affect profitability that cannot be identified through annual reports i.e. systems used by banks can play a big role as well as bureaucracy. The external factors have also not been included in this research.

There are definitely other possible areas of study in this industry pertaining to external factors such as exchange rates effects on profitability of the industry, interest rates and inflation in Malawi.

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