ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

Determinants of financial performance of commercial banks in Ethiopia

By

Abdulrehman Mohammed

June, 2023

Addis Ababa, Ethiopia

Determinants of financial performance of commercial banks in Ethiopia

By: Abdulrehman Mohammed

Advisor: Habtamu B. (PHD)

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, SCHOOL OF GRADUATE STUDIES, COLLEGE OF BUSINESS AND ECONOMICS, DEPARTMENT OF ACCOUNTING AND FINANCE, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN ACCOUNTING AND FINANCE

June, 2023

Addis Ababa, Ethiopia

Declaration

I declare that this MSc Degree in Accounting and finance at Addis Ababa University, hereby submitted by me, is my original work and has not been presented for a degree in any other university, and all sources of material used for this thesis have been fully acknowledged.

Name: Abdulrehman Mohammed Seid

ID No: GSE/3302/13

Signature: _____

Date: _____

Statement of Certification

This is to certify that this research work entitled "determinants of financial performances in case of Ethiopian commercial banks "is original work of Abdulrehman Mohammed Seid carried out under my supervision. As it fulfills all the requirements for the award of the Degree of Masters of Science in accounting and Finance, I endorse this through my signature.

Habtamu Berhanu (PhD)

Signature_____

Date_____

Addis Ababa University

College of Business and Economics

Department of Accounting and Finance

Master Thesis Examination Approval Sheet

Approved by <u>Board of Examiners</u>

Advisor _____Signature _____ Date _____

Internal Examiner _____Signature _____ Date _____

External Examiner _____Signature _____ Date _____

Acknowledgements

In the name of Allah, the Most Gracious and the Most Merciful, Alhamdulillah all praises belongs to Almighty Allah.

I also would like to thank my advisor Dr. Habtamu Berhanu (PhD) for his unlimited support of my study and research, for his patience and tremendous knowledge. His guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and monitor for my master‘s study.

Besides my advisor, I would like to thank my sister Meriyem Mohammed for her unlimited logistic and moral supply, my Mom Mehbuba Awol for her warm motivation and inspiration and my brother Nesredin Mohammed for his restless follow up and communication since leaving high school. Especially with mom and sis, we have passed too many ups and downs. They are the reason why I am here today. Besides my personal achievement, I was always dreaming to see the time when those named family members being proud of me. I believe this is the time that the dream came true. I could not have imagined this success without them and this thesis is dedicated to them. So, *let’s enjoy it together!* I have nothing to say regarding the dad as he knows what my reason is.

I would also like to take this opportunity to express my heartfelt gratitude to Mariya Hayredin, Mohammed jemal and others whose names are not mentioned here but supported me in whatever I need and they could. My sincere thanks also goes to the staffs of national bank of Ethiopia for helping me getting the file required with their warm welcome. Thank you very much once again!

.

ACRONYMS

AIB- Awash international bank

AQR- Asset quality ratio

BoA- Bank of Abyssinia

BS- Bank size

CAR- Capital adequacy ratio

CBE- Commercial bank of Ethiopia

DB- Dashen bank

EA- Earning ability

GDP- Growth domestic product

INFR- Inflation

LM- Liquidity management

ME- Management efficiency

NIB- Nib international bank

NBE- National bank of Ethiopia

NIBT-Net income before tax

Obs- Observation

OLS - Ordinary Least Square

Prob – Probability

NIM- Net interest margin

ROA- Returns on asset

ROE- Return on equity

UB- United bank

VIF - Variance Inflation Factor

WB- Wegagen bank

Contents

Abstract

The aim of the study is to examine the determinants of financial performance of commercial banks in Ethiopia. In order to investigate the determinants of financial performance, seven commercial banks were taken as sample covering the period of time 2000 to 2021GC. Return on asset is used as a profitability indicator in the research. Data are collected from annual report of the respective banks via National bank of Ethiopia. Descriptive statics, correlation and multiple linear regression models were employed for the analysis of data. According to the results obtained from the analysis, it is determined that capital adequacy, asset quality, bank size, management efficiency, earning ability of the banks have a significant effects on the profitability of Ethiopian commercial banks. Whereas, liquidity management and annual inflation have an insignificant effects on the Ethiopian commercial banks performance. Based on the findings it is recommended that the concerned commercial banks management should take appropriate measurements to put their banks on the stable profit position.

Key words: financial performance, commercial banks

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

In any economy there are five basic components of financial environment. These are money, financial markets, financial instruments, rules and regulations. Among the various financial institutions, banks are the most active players and fundamental components in the financial system (Dhanabhakyam and Kavitha, 2012)). According to Rashid (2010), a bank is a financial institution that receives deposits from the public or depositor and gives loans to the deficit units and the borrowers, in the process gaining from the spread of the different interest charged. Commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course. In other words, for sustainable intermediation function, banks need to be profitable. Beyond the intermediation function, the financial performance of banks has critical implications for economic growth of countries. Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. On the other hand, poor banking performance can lead to banking failure and crisis which have negative repercussions on the economic growth.

Thus, financial performance analysis of commercial banks has been of great interest to academic research since the Great Depression Intern the 1940's. In the last two decades studies have shown that commercial banks in Sub-Saharan Africa (SSA) are more profitable than the rest of the world with an average Return on Assets (ROA) of 2 percent (Flamini et, al 2009). One of the major reasons behind high return in the region was investment in risky ventures. The other possible reason for the high profitability in commercial banking business in SSA is the existence of huge gap between the demand for bank service and the supply thereof. That means, in SSA the number of banks are few compared to the demand for the services; as a result there is less competition and banks charge high interest rates. This is especially true in East Africa where the few government owned banks take the lion's share of the market.

The performance of commercial banks can be affected by internal and external factors (Al-Tamimi, 2010), (Aburime, 2005). These factors can be classified into bank specific (internal) and macroeconomic variables. The internal factors are individual bank characteristics which affect the bank's performance. These factors are basically influenced by the internal decisions of management and board.

The external factors are sector wide or country wide factors which are beyond the control of the company and affect the profitability of banks.

The Ethiopian financial system consists of the National Bank of Ethiopia that is responsible to regulate the whole banking system, Commercial Banks (government and domestic private banks), Insurance Companies (government and domestic private), a Public pension scheme, a Savings & Credit Corporations, Micro Finance Institutions, T-bills and bonds markets, rediscount facility for government papers, inter-bank money and forex markets, and a large number of Iqubs (Weeks et al, 2004).

The banking sector of Ethiopia passed-through different ups and downs starting from (Emperor to Derg Regime) period until the present. There are challenges within the sector that have impeded further performance of the sector. There are different responsible factors. While some of them are endogenous to the sector itself, others are macroeconomic problems in nature, in a sense that it is external to the banks. The financial sector factors includes that the banking sector is not liberalized yet to foreigners that leads to abnormal profits in the sector.

Operationally financial performance could be defined as a general measure of firms overall health which looks at how well the companies can use their asset, shareholders equity, liability, revenue and expenses (Befikadu, 2018). Now a days in a competitive business condition a business entities has to be efficient and effective in order to compete and stay in the business. Measurement of efficiency and effectiveness is an important aspect of firm’s financial performance (Mehran and izah, 2012). It reflects a good performance rewards to the shareholders for their investment. This in turn, encourage additional investment and bring about economic growth, on the other hand poor performance can lead to failure which has negative repercussion on the economic growth (marshal, 2009).

According to Aburime (2005), beyond the intermediation function, firm's financial performance has critical implications for economic growth of one country. Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. On the other hand, poor financial performance can lead to institutional failure and crisis which have negative repercussions on the economic growth (Flamini, 2009). The performance of firms can be affected by internal and external factors. While internal factors are firm specific characteristics which affect the banks financial performance and macroeconomic factors are external to the banks (Al-Tamimi, 2010)

The analysis of the firm's financial performance usually employs financial ratio method, because it provide a simple descriptions about a firm's financial performance in comparison with previous period and helps to improve its performance (lin et al., 2005).

Profitability ratios are among the most commonly used measures companies' financial performance in using their asset, equity, investment, and sales that the companies can achieve. In particular, return on asset (ROA) and return on equity (ROE) are among the most commonly used measures of financial performance.

The higher to these ratios implies the more the efficiency and effectiveness of the firms in using their assets and equity invested (Fabozzi and Peterson , 2003). Examination of factors which have a shock on the realization of organizational goal is indisputable to compete with other firms in international market (Nunes et al.., 2009)

In fact, there is no generally accepted list of factors in explaining the firm's financial performance (business success or failure) (lussier, 1995). In this case it is possible to see determinants of financial performance from firm specific and macroeconomic factors point of view. In line with this (Gemechu, 2013 and Athanasoglou et al, 2006) stated that firm specific factors seems to be the major determinants of firm's financial performance, and are the main driver for competitive advantage which is crucial for surviving economic downturn. On the other hand, the macroeconomic factors are country wide variables which are beyond the control of the company and affect the performance of the firms. For instance, hawawini et al (2003) stated that macroeconomic factors play a more important role in dictating the influence of firm performance. In this case examining the drivers of firm's financial performance is indisputable.

1.2 Statement of the Problem

In the contemporary world, with rapid growth of business activities there is no doubt about inevitability of existence of financial performance examination in all organizations which is basis for evaluating managers' performance as well as soundness of firms in terms of financial performance (Sudin, 2004). This necessity is so evident that the absence of periodic performance examination is regarded as symptom of organization unhealthiness. In this view, it is possible to say financial performance examination encourage companies to attain a higher level of performance by showing current financial position of a company in relation to other companies and creating a competitive environment (hawawini et al., 2003).

Harker and Zenios (1998) Reports show that the bank performance is a function of its strategic choices, strategy execution, quality of services, and the environment. Accordingly, profitability difference for those banks operating in similar macroeconomic environment can be assured through the success of their competitive strategies and other managerial procedure. Comparative advantages, therefore, may arise from the bank's size, earning ability, asset quality, management efficiency, leverage management, inflation and others. Thus, these explanatory variables of banks' performance should be extracted in empirical researches. That is why the determinants of bank performance have attracted the interest of academic research as well as of bank management, and bank supervisors.

Finance literature indicated banks' performances get a great deal of attention, that realizing the sector serves a crucial role in the economy. The performance of a bank is explained in different terms such as profitability, efficiency, competition, concentration and productivity. To resist negative shocks and contribute to the stability of the financial system, banks acquire better performances and better implementation ability (Athanasoglou et al., 2008). The Ethiopian banking industry can be characterized as highly profitable, concentrated and moderately competitive. However, the banking industry in Ethiopia is characterized by operational inefficiency, little and insufficient competition, and perhaps can be distinguished by its market concentration towards the big government owned commercial bank and having undiversified ownership structure. In light of these facts, a lot of research work has so far taken place concerning the issue of determinants of bank performance.

Excess profits of Ethiopian commercial banks is an indication of the underdeveloped nature of the banking sector (Patrick Honohan,1997).Commercial banks 'profits are excess in the sense that the annual profit of each commercial bank is very high when compared to other peer countries commercial bank profit such as Kenya ,Uganda and Sudan even though it is underdeveloped sector. The private sector`s involvement in the sector was started in 1994, under the proclamation "Monetary and Banking proclamation No.83/1994."

Even though private banks are so young, the growth rate is very high because of no tough competition among domestic banks, no foreign banks involvement in the competition, no well-defined pricing for the service provided to public and less accessibility of the banking services to rural society which implies that the unfair service charge in case some banks there. So, one can conclude that the substantial profit of commercial banks in Ethiopia is not from service quality, good management, asset quality and others rather it is from high interest spread in the sense that the large gap between lending rate and deposit rate in the sector (Desta and admassu, 2014).

In Ethiopia, regarding this topic, number of researches were conducted to pick some, A study by Zerayehu et al. (2013) using qualitative, descriptive and econometric techniques have found that in Ethiopia, the financial system is dominated by banking sector even though the sector is relatively underdeveloped, closed and under-banked economy compared to those of other countries in the world. In most cases, commercial bank of Ethiopia is one of the leading banks in Ethiopia and still seizes quasi-monopoly power.

Birhanu(2012) used a mixed approach, and without including the recently established banks, has concluded that bank's capital, liquidity status, bank size and macroeconomic variables such real GDP growth rates have significant impact on banks' profitability.

A study by Amdemikael (2012) on seven commercial banks in Ethiopia, covering the period of 2000-2011 and using a mixed methods research approach finds out that in the Ethiopian banking industry there was excess liquidity ratio. In contrary to this, the existence of a very serious liquidity problem in the Ethiopian banking industry, particularly in the case of private banks which may result from some regulations imposed by the government like the credit cap and the forced investment on bonds which amounts 27% of their total loan, that is, both these regulations are exercised on private banks only.

Review of previous literatures reveal that number of studies has been done in the context of financial performance. However, in the context of Ethiopia to the researcher's best of knowledge, no recent studies have been found that was conducted on the topic using at least 20+ years' data. For this reason, this specific paper different from those reviewed academic journals study papers by considering determinants of financial performances in Ethiopian commercial banks through using long time and very recently audited financial statement. Hence, an attempt has been made to fill this research gap and could point out the critical factors that affect the financial performance of commercial banks in Ethiopia. Therefore, the objective of this study is to identify the determinants of the financial performance of commercial banks (selected) operating in Ethiopia.

1.3 Objectives of the study

1.3.1 General Objective

The General Objective of the study was to investigate the determinants of financial performance of the selected commercial banks in Ethiopia.

1.3.2 Specific Objectives

In addition to general objective, the study intended to achieve the following specific objectives;

1.3.2.1 Firm specific objectives

- To investigate the effect of capital adequacy on the performance of commercial banks in Ethiopia.
- To examine the effect of asset quality on the performance of commercial banks in Ethiopia.
- To identify the impact of management efficiency on the performance of commercial banks.
- To evaluate the effect of earning ability on the performance of commercial banks in Ethiopia
- To examine liquidity influence on the performance of commercial banks in Ethiopia.

- To investigate the impact of bank size on the performance of commercial banks in Ethiopia.

1.3.2.2 Non-firm specific objective

- To examine the impact of inflation on the performance of commercial banks in Ethiopia.

1.4 Research Hypothesis

After careful review of empirical studies presented in the literature review section on how firm specific and macroeconomic variables influence financial performance, the researcher developed the following hypotheses.

H1: *capital adequacy ratio has significant effect on ROA.*

H2: *Asset quality has significant effect on ROA.*

H3: *management efficiency has significant effect on ROA.*

H4: *Earning ability has significant effect on ROA.*

H5**:** *liquidity management has significant effect on ROA.*

H6**:** *Bank size has significant effect on ROA.*

H7: *Annual inflation has significant effect on ROA*

1.5. Significance of the study

Significance of study is an important part of the research as it exhibits the relevance of the study. Identifying bank performance determinant factors is vitally important for all stake holders, such as the owners, the investors, the debtors, the creditors and depositors, the managers of banks, the regulators and the government. It gives direction to the debtors and the investors to make decision whether they should invest money in bank or invest somewhere else. The research will may have an important practical implication for banks to find out what determinants of profitability are crucial so that any concerned bodies can take initiatives in managing the dominant determinants. Moreover, the study enables future researchers as a directive to that area would not be covered under this study.

1.6. Scope of the study

The scope of the study is confined to all banks registered and is in operation in Ethiopia as commercial banks within the study period of 2000-2021GC. Performance of banks can be expressed in terms of competition, concentration, efficiency, productivity and profitability, but in this study performance is defined as profitability. Therefore, measuring performance (profitability) is delimited to return on asset indicator, and seven independent variables. The reason for the restriction of variables to seven is that the focus of most literatures lays on them and the availability of data, for instance, the study excludes credit risk due to confidentiality of data on non-performing loan or provision for loan loss.

1.7 Limitation of the study

Due to the fact that no study can be made perfectly to optimum point, this study has also its own limitations. It is confined to one sector only which is commercial banking sector in Ethiopia only, therefore its findings may not be extended to others sectors in Ethiopia, firms in other industries, and firms in other countries. The study was limited to twenty two years financial statement of the banks and to the limited knowledge of the researcher about the topic.

The other limitation of this study is that it is carried out with the help of secondary data. The reliability of the result is based on authenticity of the data collected. Hence to minimize the effect, the data is collected from audited financial statement. And also, there could be other internal and external macroeconomic factors that may be affecting the financial performance of commercial banks in Ethiopia which were not included in this study. Even if there are many variables that affect commercial banks profitability, the study concentrated only on seven independent variables (capital adequacy, asset quality, management efficiency, earning ability, liquidity management, bank size, and inflation). And the analysis and its derived conclusions is based on the secondary data sources (i.e. mainly on published annual reports).

1.8 Organization of the study

The study comprised five major chapters. The first chapter is introductory part which presents introduction, background of the study, statement of the problem, research question, objective, hypotheses, significance, scope, and limitation of the study. Chapter two deals with literature review in the form of theoretical and empirical studies, and conceptual framework. The third chapter reflects the research design and methodology of the study. Then chapter four presents data analysis and empirical result of the study, finally in the fifth chapter conclusion and recommendation presented.

CHAPTER TWO

Literature review

2.1 theoretical literature reviews

2.1.1. Introduction

Literature review is foundation of any research activity. It helps to establish the theoretical framework and foundation of the field of study. It helps to summarize what is studied in the past and synthesized in a way that permits a new perspective. Hence, this chapter attempts to capture related literature on various theme that underline the topic of study. Commercial banks play a significant role in the economic growth of countries. Through their intermediation function, commercial banks play a vital role in the efficient allocation of resources of countries by mobilizing resources for productive activities. They transfer funds from those who don't have productive use of it to those with productive venture. In addition to resource allocation good bank performance rewards the shareholders with sufficient return for their investment. When there is return there shall be an investment which, in turn, brings about economic growth. On the other hand, poor banking performance has a negative repercussion on the economic growth and development. Poor performance can lead to runs, failures and crises.

Banking crisis could entail financial crisis which in turn brings the economic meltdown as happened in USA in 2007 (Marshall, 2009.) That is why governments regulate the banking sector through their central banks to foster a sound and healthy banking system which avoid banking crisis and protect the depositors and the economy (Heffernan, 1996; Shekhar and Shekhar, 2007.) Thus, to avoid the crisis due attention was given to banking performance. Normally, the financial performance of commercial banks and other financial institutions has been measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies (Avkiran, 1995). In many of the literature reviewed its explained that bank performance is represented mainly by quantifiable financial indicators. The literature on the determinants of bank performance has closely tied bank performance with profitability measures such as ROA, ROE and NIM Smirlock (1985), Civelec and Al-Almi (1991), Agu (1992) and Chirwa (2001). Gilbert (1984) in a survey of literatures

argued that bank profit is an appropriate measure of bank performance and criticize average interest rate and average service charge rates as poor measures of bank performance.

2.1.2. Overview of banking history in Ethiopia

The banking history in Ethiopia goes back to Feb. 16, 1906 following the agreement that was reached in 1905 between Emperor Minilik II and Mr. Ma Gillivray, representative of the British owned National Bank of Egypt marked the introduction of modern banking in Ethiopia. The Bank was called Abyssinia bank and was totally managed by the Egyptian National Bank. After its establishment, Bank of Abyssinia opened branches in different areas of the country. In 1906 a branch in Harar (Eastern Ethiopia) was opened at the same time of the inauguration of Bank of Abyssinia in Addis Ababa. Another at Dire Dawa was opened two years later and at Gore in 1912 and at Dessie and Djibouti in 1920. Mac Gillivray, the representative and negotiator of Bank of Egypt, was appointed to be the Governor of the new Bank and he was succeeded by H Goldie, Miles Backhouse, and CS Collier was in change from 1919 until the banks liquidation in 1931.

Generally, in its short period of existence, Bank of Abyssinia had been carrying out limited business such as keeping government accounts, some export financing and undertaking various tasks for the government. Moreover, the Bank faced enormous pressure for being inefficient and purely profit motivated and reached an agreement to abandon its operation and be liquidated in order to disengage banking from foreign control and to make the institution responsible to Ethiopia's credit needs. Thus by 1931 Bank of Abyssinia was legally replaced by Bank of Ethiopia shortly after Emperor Haile Selassie came to power. The new Bank, Bank of Ethiopia, was a purely Ethiopian institution and was the first indigenous bank in Africa (NBE, 2009/10,) and established by an official decree on August 29, 1931 with capital of £750,000. Bank of Egypt was willing to abandon it's on cessionary rights in return for a payment of Pound Sterling 40,000 and the transfer of ownership took place very smoothly and the offices and personnel of the Bank of Abyssinia including its manager, Mr. Collier, being retained by the new Bank.

Bank of Ethiopia took over the commercial activities of the Bank of Abyssinia and was authorized to issue notes and coins. The Bank with branches in Dire Dawa, Gore, Dessie, Debre

tabor, Harar, agency in Gambella and a transit office in Djibouti continued successfully until the Italian invasion in 1935. During the invasion, the Italians established branches of their main banks namely Banco di Italia, Banco di Roma, Banco di Napoli and Banco Nazionale del lavoro and started operation in the main towns of Ethiopia. However, they all ceased operation soon after liberation except Banco di Roma and Banco di Napoli which remained in Asmara. In 1941, another foreign bank, Barclays Bank, came to Ethiopia with the British troops and organized banking services in Addis Ababa, until its withdrawal in 1943. Then on 15th April 1943, the State Bank of Ethiopia commenced full operation after 8 months of preparatory activities. It acted as the central Bank of Ethiopia and had a power to issue bank notes and coins as the agent of the Ministry of Finance.

In 1945 and 1949 the Bank was granted the sole right of issuing currency and deal in foreign currency. The Bank also functioned as the principal commercial bank in the country and engaged in all commercial banking activities. The State Bank of Ethiopia had established 21 branches including a branch in Khartoum, Sudan and a transit office on Djibouti until it ceased to exist by bank proclamation issued on December, 1963. Then the Ethiopian Monetary and Banking law that came into force in 1963 separated the function of commercial and central banking creating National Bank of Ethiopia (NBE) and commercial Bank of Ethiopia (CBE). Moreover it allowed foreign banks to operate in Ethiopia limiting their maximum ownership to be 49 percent while the remaining balance should be owned by Ethiopians.

There were two other banks in operation namely Banco di Roma S. C. and Bank of di Napoli S.C. that later reapplied for license according to the new proclamation each having a paid up capital of Eth. Birr 2million.The first privately owned bank, Addis Ababa Bank S.C., was established on Ethiopians initiative and started operation in 1964 with a capital of 2 million in association with National and Grindlay Bank, London which had 40 percent of the total share. In 1968, the original capital of the Bank rose to 5.0 million and until it ceased operation, it had 300 staff at 26 branches. There was also the Saving and Mortgage Corporation of Ethiopia (SMCE) whose aims and duties were to accept savings and trust deposits account and provide loans for the construction, repair and improvement of residential house, commercial and industrial buildings and carry out all activities related to mortgage operations.

On the other hand, there was a bank called agricultural bank that provides loan for the agricultural and other relevant projects established in 1945. But in 1951the investment bank of Ethiopia replaced it. In1965, the name of the bank once again hanged to Ethiopian Investment Corporation Share Company and the capital was raised to Eth. Birr 20 million, which is fully paid up. However, proclamation No. 55 of 1970 established the agricultural and Industrial Development bank Share Company by taking over the asset and liability of the former Development Bank and Investment Corporation of Ethiopia.

Following the declaration of socialism in 1974, the government extended its control over the whole economy and nationalized all large corporations. Organizational setups were taken in order to create stronger institutions by merging those that perform similar functions. Accordingly, the three private owned banks, Addis Ababa Bank, Banco di Roma and Banco di Napoli Merged in 1976 to form the second largest Bank in Ethiopia called Addis Bank with a capital of Eth. birr 20 million and had a staff of 480 and 34 branches. Before the merger, the foreign participation of these banks was first nationalized in early 1975.

Then Addis Bank S.C. and Commercial Bank of Ethiopia were merged by proclamation No.184 of August 2, 1980 to form the sole commercial bank in the country till the establishment of private commercial banks in 1994. The Commercial Bank of Ethiopia commenced its operation with a capital of Birr 65 million, 128 branches and 3,633 employees. The Savings and Mortgage Corporation S. C and Imperial Saving and Home Ownership Public Association were also merged to form the Housing and Saving Bank with working capital of Birr 6 million and all rights, privileges, assets and liabilities were transferred by proclamation No.60, 1975 to the new bank.

Proclamation No. 99 of 1976 brought in to existence the Agricultural and Industrial Bank, which was formed in 1970 as a 100 percent state ownership, was bought under the umbrella of the National Bank of Ethiopia. Then it was reestablished by proclamation No. 158 of 1979 as a public finance agency possessing judicial personality and named Agricultural and Development Bank (AIDB). It was entrusted with the financing of the economic development of the Agricultural, Industrial and other sectors of the national economy extending credits of medium and long-term nature as well as short-term agricultural production loans.

The financial sector that the socialist oriented government left behind constituted only three banks and each enjoying monopoly in its respective market, the following was the structure of the sector at the end of the era: The National Bank of Ethiopia (NBE), the commercial Bank of Ethiopia (CBE) and Agricultural and Industrial Development Bank (AIDB). Following the fall of the Dergue regime in 1991 that ruled the country for 17 years under the rule of command economy, the EPRDF declared a liberal economy system.

In line with this, Monetary and Banking proclamation of 1994 established the National Bank of Ethiopia as a judicial entity, separated from the government and outlined its main function. Monetary and Banking proclamation No.83/1994 and the Licensing and Supervision of Banking Business No.84/1994 laid down the legal basis for investment in the banking sector. Consequently after the proclamation issued private equity holders began to join the Ethiopian banking industry and as of (December, 2022) twenty seven commercial banks are in operation and out of this twenty six's are private owned.

2.1.3. Concepts of Financial performance

There are many stakeholders in a bank, including creditors, bondholders, investors, employees, and management. Each group has an interest in tracking the financial performance of a bank. Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished and is an important aspect of finance risk management. The financial performance identifies how well a bank generates revenues and manages its assets, liabilities, and the financial interests of its stakeholders and stockholders. Many authors and organization defines financial performance in different ways. Financial performance is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Pandey, 2002). Firm financial performance relates to the various subjective measures of how well a firm can use its given assets from primary mode of operation to generate profit (Prempeh, 2015).

A well designed and implemented financial management is expected to contribute positively to the creation of a firms' value (Prasanna, 2002). Dilemma in financial management is to achieve desired trade- off between liquidity, solvency and profitability (Brigham, 1978).The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications to organization's health and ultimately its survival (Pandey, 2002). High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large.

2.1.4. Financial Performance Analysis

Financial performance analysis is the process of determining the operating and financial characteristics of a bank from its accounting and financial statements, Befekadu, (2018). The goal of such analysis is to determine the efficiency and performance of firms, as reflected in the financial records and reports. The analyst attempts to measure the firm's liquidity, profitability, capital structure and other indicators that the business is conducted in a rational and normal way; ensuring enough returns to the shareholders to maintain at least its market value. When we look into the level of financial performance, generally analysis is concerned with two sets of performance measures. One based on capital market valuation of a bank and the other set based on accounting measures of profitability and financial performance. Financial performance analysis is an appraisal of the feasibility, solidity and fertility of a business, sub-business or mission.

Corporate performance or firm's performance refers to the result of management process in relation to corporate goals. It is a product of the activities and return on investment in a given period (Mohammad & Ebrahim, 2010). Analaysation of bank's performance helps to reveal the result of investment activities of the banks thus informs and send out signals to the public in relation to their worth/value to help investors make valuable economic decisions. Profitability is the primary goal of all business ventures, without profitability the business will not survive in the long run. Therefore, the measurement of current or past profitability and projecting future profitability is very important. Consequently, profitability of a bank plays an important role in

the structure and development of the bank because it measures the performance, success of the bank and enhances the reputation of the bank (Nousheen & Arshad, 2013).

2.1.4.1 Indicators of Financial Performance of banks

According to Tian & Zeihim, (2007) financial performance measurement is one of the tools which indicate financial strength, weakness, opportunities and threats of a firm (banks). Financial performance of the organization shall be measured from objective of its organization angle (Letenah, 2009). In evaluating determinants of financial performance of a bank, an important question is whether the traditional corporate goal of profit maximization holds. Good Financial performance is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does not mean that commercial banks have no other goals. Commercial banks could also have additional social and economic goals. However, the intention of this study is related to the first objective, financial performance. Different scholars used different models to measure profitability. The most popular measures are return on asset(ROA), return on equity(ROE) and net interest margin(NIM) were identified by Ahmed (2003) widely used in literatures to measure profitability. Others were used these models as comparative measure of one model to another, and then choose the best measure of performance. Studies made on the financial performance of commercial Banks largely used Return on Asset(ROA), Return on Equity(ROE) and Net Interest Margin (NIM) as a common measure (Murthy & Sree, 2003; Alexandru, 2008; Ezra, 2013)

According pandy (1999) the conventional corporate finance the reason why firm must make profit is to survive and grow over period. Logically, profitability is the ultimate goal that all business seeks to attain. However, this does not mean that the businesses have no other goal, thus profitability is used as proxies for financial performance. Jaffe (2002) argued profitability is one of the most difficult attributes of a firm to conceptualize and measure. In general sense, accounting profits are the difference between revenue and cost. But the best category of profit that will be used in this study is net income. Net income is profit enjoyed by the shareholders, and it shows ability of the company to give them return (Brigham and Ehrhardt, 2005). There are different ways of analyzing net income, and it depends on the ratio used.

For example, in calculating the profitability ratio, net income is commonly used to measure the performance of the company in using assets, equity and to compare with sales that the company can achieve (Brigham and Houston, 2007). Studies made on the financial performance of commercial Banks largely used Return on Asset(ROA), Return on Equity(ROE) and Net Interest Margin (NIM) as a common measure (Murthy & Sree, 2003; Alexandru, 2008; Ezra, 2013).

According to Holz, (2002) there are different ways to measure financial performance such as: return on asset (ROA), return on equity (ROE) and return on invested capital (ROIC). Gemechu (2013), Jha and Hui (2012) and Bintawim (2011) used profitability ratio as proxies for financial performance. They used return on asset (ROA), return on equity (ROE) to measure profitability. Also (schiuma, 2003)) mentioned accounting based performance using three indicators: return on asset (ROA), return on equity (ROE) and return on investment (ROI). As firm size is an important moderator in governance and control researches and combines in the variable of ROA as denominator is the total assets hence it is important to take the measure of firm performance by ROA. This study will use ROA as proxy to financial performance because it measures the overall effectiveness of management in generating profit with its available assets. According to Panagiotis & Konstantinos (2005), ROA can be viewed as the firm's ability to make use of its assets, thus, it is one of the world's easiest calculations of performance aside return on sales and return on equity. Yana (2010) defined ROA to be a measure of how effectively assets are used to create profits. Hence, the higher the ROA measure the more favorable the company is because it is earning more from what it has invested. ROA is also among the most common indicators of financial performance and the higher this ratio indicates the higher profitability (efficiency) of the companies (Samad, 2004) and (Medhat, 2003).

Return on Equity (ROE)

ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. A business that has a high return on equity is more likely to be one that is capable of generating cash internally. Thus, the higher the ROE the better the company is in terms of profit generation. It is further explained by (Khrawish, 2011) that ROE is the ratio of Net Income after Taxes divided by Total Equity Capital. It represents the rate of return earned on the funds invested in the bank by its stockholders.

ROE reflects how effectively a bank management is using shareholders‟ funds. Thus, it can be deduced from the above statement that the better the ROE, the more effective the management in utilizing the shareholders capital.

ROE= Net Income/Total Equity

Return on Asset (ROA)

ROA is also another major ratio that indicates the profitability of a bank. It is a ratio of Income to its total asset (Khrawish, (2011). It measures the ability of the bank management to generate income by utilizing bank assets at their disposal. In other words, it shows how efficiently the resources of the bank are used to generate the income. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010), state that a higher ROA shows that the company is more efficient in using its resources.

ROA= Net income/Total Asset

Net Interest Margin (NIM)

NIM is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example, deposits), relative to the amount of their interest earning assets (Loans and Advances). It is usually expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets). The NIM variable is defined as the net interest income divided by total earnings assets (Loans and Advances) (Gul, Faiza, & Khalid, 2011). The higher the net interest margin, the higher the bank's profit and the more stable the bank is. Thus, it is one of the key measures of bank profitability. However, a higher net interest margin could reflect riskier lending practices associated with substantial loan loss provisions (Khrawish, 2011).

NIM= (Interest earned-Interest expense)/Total asset

The return on asset (ROA) is the widely used profitability measures ratios. ROA best measures of how bank manage its asset to generate revenue than any profitability measures tool (Rivard and Thomas, 1997). According to these scholars, there are possibly two primary reasons why we should use ROA than others measure of performance: First unlike ROE, movement in equity multiplier less distort ROA. Whereas ROE by using only equity of bank`s shareholder, measures how banks` management generate return for each equity. NIM is also a ratio of earning asset that show the degree to which the bank`s earning is profitable. And the second reason is that ROA represent a better measures of ability of banks generate returns from its portfolio asset. In line with the above discussion, the researcher will use ROA as measure of profitability for this particular study owing to the limitations of NIM & ROE. NIM is reported to have two major limitations.

First, it doesn't measure the total profitability of the bank as most of them earn fees and other non-interest income through service like brokerage and deposit account services without taking account operating expenses, such as personnel and facilities costs, or credit costs. Besides, net interest margin of two banks can't be contrasted as both the banks are poles apart in their own way in the nature of their activities, composition of customer base, etc. http: // www.readyratios.com.

ROE is also indicated to have a lot of limitations. First, it is not risk sensitive. A decomposition of ROE shows that a risk component represented by leverage can boost ROE in a substantial manner. Second, ROE is unable to indicate risky assets and their solvency situation. Third, ROE failed to discriminate the best performing banks from the others in terms of sustainability of their results especially in the 2008 banking crises. Fourth, ROE is a short term indicator and must be interpreted as a snapshot of the current health of institutions. It does not take into account either institution's long term strategy or the long term damages caused by the crisis. Its weaknesses are even more obvious in times of stress, when there is a climate of uncertainty surrounding the medium term profitability of institutions (ECB, 2010)

ROA measurement includes all of a business's assets including those which arise out of contribution by investors. Moreover, the inclusion of liabilities makes ROA even more valuable as an internal measurement tool, particularly in evaluating the performance of different departments or divisions of a company. www.referenceforbusiness.com

2.1.5 Determinates of Financial Performance

The basic motive behind any investment, made by the corporate sector, is to earn profit (Kyereboah-Coleman, 2007). It is among the goals of the bank to maximize shareholders' wealth and generate enough profits to continue the business and to grow further in future. The determinants of bank performances can be classified into bank specific (internal) and macroeconomic (external) factors (Al-Tamimi & Hassan, 2010; Aburime U., 2005). It is important to note here that the internal factors are firm specific, while external factors are variables that are not related to the firms' management but reflected the economic, legal environment and market characteristics that affect the operation and performance of the companies.

2.5.1.1 Bank Specific Factors/Internal Factors

The internal factors are bank specific variables which influence the profitability of specific bank. These factors are within the scope of the bank to manipulate them and that they differ from bank to bank. These include Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability, Liquidity and Bank size (Dang & Uyen, 2011)

- ***Capital Adequacy***

Capital is one of the bank specific factors that influence the level of bank profitability. Almost every aspect of banking is either directly or indirectly influenced by the availability and cost of capital. Capital is one of the key factors to be considered when safety and soundness of a particular bank is assessed. An adequate capital base serves as a safety net for a variety of risks to which an institution is exposed in the course of its business. Capital absorbs possible losses and thus provides a basis for maintaining depositor confidence in a bank. Capital also is the ultimate determinant of a bank's lending capacity. Capital is the amount of own fund available to support the bank's business and act as a buffer in case of adverse situation (Athanasoglou et al. 2005).

Banks capital creates liquidity for the bank due to the fact that deposits are most fragile and prone to bank runs. Moreover, greater bank capital reduces the chance of distress (Diamond, 2000). However, it is not without drawbacks that it induce weak demand for liability, the cheapest sources of fund Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order

to absorb the potential loses and protect the bank's debtors. According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi and Nazir, 2010).

Owing to its crucial role in reducing the number of bank failures and losses to depositors, the capital structure of a particular bank is highly regulated. For instance, the National Bank of Ethiopia (NBE) has set a specific measure of the capital adequacy position of banks and/or Capital Adequacy Ratio (CAR) under Directive No., SBB/9/95 & SBB/50/2011 clearly set out the computation mechanism and the conversion factors for both on and off balance items and it strictly set for all banks not to maintain their capital level below 8% of their risk weighed assets. Dang (2011) also asserted, the major intention of holding capital is to build the internal strength of the bank to withstand losses during crisis. According to Beckmann (2007), high capital leads to low profits since banks with high capital ratio are risk-averse, they ignore risky investment opportunities. As a result, investors demand a lower return on their capital in exchange for lower risk.

Damena (2011), conduct a study on the determinants of commercial banks profitability during the period 2001-2010. He found that, capital can significantly affect commercial banks profitability in Ethiopia. Following this, he concluded that there is positive relationship between banks capital and profitability.

And he also concluded that, the higher the capital level brings the higher profitability for Ethiopian Private Commercial Banks since by having more capital a bank can easily adhere to regulatory capital standards and the excess capital also can be provided as loans. According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR).

On the other hand, Gavila et al (2009) argued that although capital is expensive in terms of expected return, highly capitalized banks face lower cost of bankruptcy, lower need for external funding especially in the emerging economies where external borrowing is difficult. Thus, well capitalized banks should be profitable than lowly capitalized banks.

According to Neceur, Olweny and Shipho (2011), a strong positive impact of capitalization to ROA was reported after the study on 10 Tunisian banks was conducted for about twenty years using a panel regression model.

According to Dang (2011), the adequacy of capital is examined based up on the two most important measures by dividing Capital to Risk Weighted Assets, and the ratio of capital to assets. By the same token, Capital adequacy can be scrutinized by dividing Capital to Risk Weighted Assets, Debt to Equity Ratio, Advances to Assets, and Government Securities to Total Investments (Misra & Aspal , 2013). To sum up, Generally, there is the presence of positive relationship between profitability and capital has been supported by ((Athanasoglou, Sophocles, & Matthaios, 2005); Flamini, Valentina , McDonald, & Liliana, 2009; (Naceur & Goaied, 2001) (Belayneh, 2011). *Therefore, based on the findings of above, the researcher expected a positive and significant effect from capital structure on the performance of commercial banks.* According to (Dang, 2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR).

CAR=Total Capital/Total Asset

- ***Asset Quality***

The bank's asset is another bank specific variable that affects the profitability of a bank. The bank asset includes among other current asset, credit portfolio, fixed asset, and other investments. Often a growing asset (size) related to the age of the bank (Athanasoglou et al., 2005). More often than not the loan of a bank is the major asset that generates the major share of the banks income. Loan is the major asset of commercial banks from which they generate income. The quality of loan portfolio determines the profitability of banks. The loan portfolio quality has a direct bearing on bank profitability. The highest risk facing a bank is the losses derived from delinquent loans (Dang, 2011). Thus, nonperforming loan ratios are the best proxies for asset quality. Different types of financial ratios used to study the performances of banks by different scholars.

It is the major concern of all commercial banks to keep the amount of nonperforming loans to low level. This is so because high nonperforming loan affects the profitability of the bank. Thus, low nonperforming loans to total loans shows that the good health of the portfolio a bank.

The lower the ratio the better the bank performing (Sangmi and Nazir, 2010). *Therefore, based on the findings of above, the researcher expected a negative and significant effect from capital structure on the performance of commercial banks.* Assets quality is determine by non-performing loan to total loan.

AQR=Non-performing loan/Total loan

- ***Management Efficiency***

Management Efficiency is one of the key internal factors that determine the bank profitability. It is represented by different financial ratios like total asset growth, loan growth rate and earnings growth rate. Yet, it is one of the complexes subject to capture with financial ratios. Moreover, operational efficiency in managing the operating expenses is another dimension for management quality. The performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others. Yet, some financial ratios of the financial statements act as a proxy for management efficiency.

The capability of the management to deploy its resources efficiently, income maximization, reducing operating costs can be measured by financial ratios. One of this ratios used to measure management quality is operating profit to income ratio (Rahman et al. in Ilhomovich, 2009; Sangmi and Nazir, 2010). The higher the operating profits to total income (revenue) the more the efficient management is in terms of operational efficiency and income generation. The other important ratio is that proxy management quality is expense to asset ratio. The ratio of operating expenses to total asset is expected to be negatively associated with profitability. Management quality in this regard, determines the level of operating expenses and in turn affects profitability (al, 2005) (Indranarain, 2009), stated that higher the management efficiency level of a firm, higher its profits level. Therefore, based on the findings of above, the researcher expected a positive and significant effect from management efficiency on the performance of commercial banks.

- ***Earning ability***

The quality of earnings is a very important criterion which represents the quality of bank's profitability and its capability to maintain quality and earn consistently. It primarily determines the profitability of bank and explains its sustainability and growth of future earnings (Khrawish, 2011).The quality and trend of earnings of a bank depend largely on how well the management manages the assets and liabilities of the bank. A bank must earn reasonable profit to support asset growth, build up adequate reserves and enhance shareholders' value. The quality of earnings of a bank determines the ability of the entity to meet debt obligations, the rate of growth of assets, reserves and ultimately the shareholders' value. The quality of earning coupled with the costs impacts the profitability. The quality of earning is also affected by the extent of asset liability mismatch and the resultant volatility in earnings due to changes in the interest rate (Bikker & Hu, 2002). Generally, a bank that depends more on leverage will experience more volatile earnings and this also affects the credit creation and liquidity of the bank (Tobias & Themba , 2011)

- ***Liquidity Management***

Liquidity is another factor that determines the level of bank performance. Liquidity refers to the ability of the bank to fulfill its obligations, mainly of depositors. According to the research conducted by Chandra(2011), normally a high liquidity is seen as a sign of financial strength. This is supported by Goddard et al (2005), firms with higher level of liquidity could be more profitable, they state in their study that companies holding more liquidity would be more likely to adopt with market movements. According to Dang (2011), adequate level of liquidity is positively related with bank profitability. The most common financial ratios that reflect the liquidity position of a bank according to the above author are customer deposit to total asset and total loan to customer deposits.

Other scholars use different financial ratio to measure liquidity. For instance Ilhomovich (2009) used cash to deposit ratio to measure the liquidity level of banks in Malaysia. However, the study conducted in China and Malaysia found that liquidity level of banks has no relationship with the performances of banks (Said and Tumin, 2011). Deloof (2003) argues that companies with greater levels of liquidity are more flexible in terms of providing short-term financing which could lead to a higher profitability.

In the Ethiopian context there seems clear measure of the liquidity: the liquid asset to deposit ratio, which the National Bank of Ethiopia, has set the minimum liquid asset of the Bank not to be less that 15% of the Banks net current liability. Out of this the directive obliged banks to hold 5% of them in primary reserve assets (NBE Directives No.SBB/9/95). Therefore, based on the findings above, the researcher expected a positive and significant effect from liquidity on performance of the banks. (Abang, 2012)Measured liquidity using current ratio which is current assets divided by current liabilities while studying the impact of liquidity on commercial banks. Current Ratio=Current Asset/Current Liability

- ***Bank size***

Bank size which is measured by total deposits (Dietrich & Wanzenried, 2009) and Al-Alami (1991) or assets (Smirlock, 1985) is one of the control variable that determines the financial performance of the commercial banks. Studies conducted on determinants of bank profitability took bank size variable as considered to an important determinants of bank performance (Kosmidou K, 2008). If the relative size of a firm expands its market power and profits increases, this is the Market-Power (MP) hypothesis. The hypothesis also referred to as the Structure Conduct-Performance (SCP) hypothesis (Athanasoglou, Sophocles, & Mathaios, 2005). One of the most important questions underlying bank policy is which size optimizes bank profitability, because there is no clear cut point which indicates the relation of appropriate bank size and its profitability? The effect of a growing size on profitability has proved positive to a certain extent. However, for banks that become extremely large, the effect of size could be negative due to bureaucratic and other reasons (Athanasoglou, etale, 2005).

Research conducted by Belayneh (2011) on the determinants of commercial banks profitability during the period 2001 - 2010 concluded that the size of all Ethiopian commercial banks which is measured by log of total asset is increased for the last 10 years. In case of Ethiopian commercial banks, as the result implies that larger banks enjoy the higher profit than smaller banks in Ethiopia banking sector because they are exploiting the benefit of economies of scale. The impact of a bank's size on its profitability is not uniform. In a study of European banks for the period of 1992 to1998, Goddard, J., Molyneux, P. and Wilson, S. J. (2004) identified only slight relationship between size and profitability. Some of earlier studies have different results. Smirlock (1985) Proofs a significant and positive impact of a bank's size on its profitability.

Short (1979) Goes further by claiming that bank size has a positive influence on profitability through lowering the cost of raising capital for big banks. Later, studies by Hu & Bikker (2002) and Goddard, J., Molyneux, P. & Wilson, S. J. (2004) support the proposition that increasing a bank's size positively affects profitability through cost of capital. However, there is no consensus in the literature on whether an increase in size provides economies of scale to banks.

Total assets are measure of bank size. In the balance sheet, bank assets consist of short and long term in nature. In order to capture possible non-linear relationship between size and profitability, the use of logarithm of total assets as a proxy for bank size is paramount. The rationale behind this thinking is because large banks are more likely to benefit from economies of scale. Therefore, based on the findings above, the researcher expected a positive and significant effect from bank size on performance of the commercial banks.

2.5.1.2 External Factors

Those factors which are beyond the management's control are referred as external or macroeconomic factors and these factors are related to the industry and macroeconomic factors. The external determinants are variables that are not related to bank management but reflect the economic and legal environment that affects the operation and performance of financial institutions. According to Deepak & Abebaw (2011), the external factors, they have a relatively small impact on the profitability of Ethiopian banks. Turning to the external determinants, several factors have been suggested as impacting on financial performance however for this study, Inflation rate was used as an external factor.

- ***Inflation rate***

Inflation (INF): is also one of the microeconomic determinants and used to represent the changes in the general price level or inflationary conditions in the economy and it is measured by annual country's inflation rate. Abreu and Mendes (2000), point out a negative relationship between the inflation rate and bank's profitability in European countries. Likewise Ayadi and Boujelbene (2012), report a negative effect of inflation on Tunisian bank profitability over the 1995- 2005 period. In the same way, Demirguc-Kunt and Huizinga (1999) suggest that banks with high capital ratio in developing countries tend to be less profitable in inflationary environments.

The effect of inflation on financial performance depends on whether inflation is anticipated or unanticipated. If inflation is fully anticipated it would have positive impact on performance. Alternatively, unexpected rise in inflation cause difficulties (Perry 1992).

Boyd and Champ (2003) discover that inflation damages economic growth through declining financial development, especially by damaging the operation of financial markets. Vong and chan (2009) identified inflation shows the strongest impact on ROA. In other study, athanassoglue et al (2006) found inflation positively and significantly affects profitability measured by both ROA and ROE. This could be ascribed to the ability of the management to adequately forecast future inflation, which in turn implies appropriate adjustment of interest rate to achieve higher profit. On the other hand, Gemechu,B (2013) identified inflation had relatively strong negative impact on financial performance. This shows that inflation affects negatively the profitability for the period under study.

As the above empirical review indicates most of the empirical studies stated that inflation has a negative effect on profitability, while some studies find positive effect. Thus based on the findings above, the researcher expects a negative and significant effect of inflation on the financial performance of commercial banks

2.2 Empirical Literature

Reviewing Empirical finding is the way of relating ones work with others previous work on the specific topic of study to prove or disprove with one's own empirical findings. Some best reviewed empirical finding of this specific topic is going to be presented; then gaps noticed from these findings analyzed. Several research works have been conducted on financial soundness and performance of banking sector throughout the world by using variety of approaches. Among them:-

The study of Alper and Anbar (2011) focuses on the bank specific and macroeconomic determinants of Profitability in Commercial Bank of Turkey under the period 2002 to 2010. It uses ROA and ROE as dependent variables to examine the determinant of banks profitability. The finding the research reveals that asset size and non-interest income have a positive and significant effect on bank profitability. However, size of credit portfolio and loans under follow-up have a negative and significant impact on bank profitability. With regard to macroeconomic variables, only the real interest rate affects the performance of banks positively. These results suggest that banks can improve their profitability through increasing bank size and non-interest income, decreasing credit/asset ratio. In addition, higher real interest rate can lead to higher bank profitability.

Madishets and Rwechungura (2013) under research paper, "Determinants of banks profitability in developing economy: Empirical Evidence from Tanzania" concluded that internal determinants: liquidity risk, credit risk, bank size (Total bank asset), capital adequacy had significant impact on profitability for the period (2006-2012).And external determinants: Growth Rate of Real GDP and Inflation rate had no impact on banks profitability.

Ayanda (2012) on his Research paper, "Determinants of commercial banks profitability in Developing country: Evidence from Nigeria banking Industry," annualized time series data from 1980-2010 concluded that: capital adequacy proxied by equity to total asset has significant negative impact on profitability, its implication is that well-capitalized bank is less risky but lower profit compared to less capitalized banks; Liquidity risk represented by total loan to total asset and total loan to total bank deposit had significant negative and positive impact respectively; growth of money supply has positive significant impact; Credit risk proxied by loan

loss provision to total loan had significant negative impact; whereas bank size proxied by total asset and number of branches network; income to cost; inflation as well as growth rate of real GDP had no impact on profitability of banks.

Shrestha (2015) studied determinants of financial performance commercial banks in Nepal and founded that non-performing loan to total loan, capital adequacy ratio, GDP and inflation are the major determinants of bank profitability. And Hakuduwal (2014) based on his finding, he concluded that there is positive significant impact of total assets, total deposits and loan and advance on profitability indicator ROA in Nepalese finance companies.

Ameur & Mhiri (2013) studied 10 commercial Tunisian banks during the period 1998 to 2011 period to identify factors explaining Tunisian bank performance. This study incorporated bank-specific as well as industry-specific and macroeconomic factors affecting bank performance. The findings suggested that the bank capitalization as well as the best managerial efficiency have positive and significant impact on the bank performance. The study also concluded that industry-specific factor such as the concentration has a negative and a significant impact on performance. Moreover, macroeconomic indicators do not have a significant impact on bank performance.

Hassan & Bashir (2002) conducted a study covering Islamic banks worldwide during 1994- 2001 to identify the determinants of Islamic banks' profitability. The study concluded that high capital and loan-to-asset ratios lead to higher profitability and implicit and explicit taxes affect the bank performance measures negatively while favorable macroeconomic conditions impact performance measures positively.

Sufian & Habibullah (2009) examined the performance of 37 Bangladeshi commercial banks between 1997 and 2004. The study revealed that bank loans intensity, credit risk, and cost have positive and significant impacts on bank performance whereas bank size exhibits a negative impact on return on average equity (ROAE).Furthermore, the study also examined the impact of macroeconomic indicators and concluded that the variables have no significant impact on bank profitability except inflation which has a negative relationship with Bangladeshi banks profitability.

Ayanda (2012) on his Research paper, "Determinants of commercial banks profitability in Developing country: Evidence from Nigeria banking Industry," annualized time series data from 1980-2010 concluded that: capital adequacy proxied by equity to total asset has significant negative impact on profitability, its implication is that well-capitalized bank is less risky but lower profit compared to less capitalized banks; Liquidity risk represented by total loan to total asset and total loan to total bank deposit had significant negative and positive impact respectively; growth of money supply has positive significant impact; Credit risk proxied by loan loss provision to total loan had significant negative impact; whereas bank size proxied by total asset and number of branches network; income to cost; inflation as well as growth rate of real GDP had no impact on profitability of banks.

Study on the financial performance of the Naara rural bank in the upper east region of Ghana conducted by Hadad (2013), used the annual financial statements covering a period of eleven years(2000 to 2010).multiple regression was the major statistical tool used to analyze the data collected from the Naara rural bank. The research is aimed at establishing empirically the relationship that exists between Naara rural banks financial performance on one hand and its credit portfolio, non-performing loan, liquidity and size (total asset) on the other hand. The result of the research reveals that liquidity and size were positively and significantly related to the performance of the bank. Although the effect of its loans portfolio is positive, its influence on performance is statistically insignificant. In addition, non-performing loans were also negative and significantly related to the performance of the bank.

The goal of the study conducted by Yadollahzadeh, Etal (2013) was to examine the effective factors on the performance of commercial banks in Iran for nine commercial banks during 2006-2010 using panel data regression method. They considered Return on asset and return on equity as dependent variables which are separately examined by explanatory variables including bank's size, gearing ratio, nonperforming loans, asset management, operating efficiency and capital adequacy ratio. Their research results show that the variables of bank's size, management efficiency and capital adequacy ratio have a positive effect on the

Madishets and Rwechungura (2013) under research paper, "Determinants of banks profitability in developing economy: Empirical Evidence from Tanzania" concluded that internal determinants: liquidity risk, credit risk, bank size (Total bank asset), capital adequacy had

significant impact on profitability for the period (2006-2012).And external determinants: Growth Rate of Real GDP and Inflation rate had no impact on banks profitability.

In the context of Ethiopia, Azebu (2007) on his paper, "Determinants of banking performance in Ethiopia" utilized panel data, ROAA as dependent variable that operational efficiency represented by cost to income; capital adequacy represented by equity to total asset had positive impact implies that the more capital; higher loan risk assumption, more profit. Bank size peroxide by log total asset also significant. The theory of economies of scale applied. Larger banks are profitable than small banks. Total loan had positive impact on profitability. Liquidity risk peroxide by total loan to total bank deposit had negative impact; but total loan to total asset had positive impact on profitability. And growth rate of real GDP were significant key factors that influence commercial banks profitability whereas credit risk and inflation rate had no impact on profitability of the sector.

The purpose of the study made by Habtamu (2012) is to investigate determinants of private commercial banks profitability in Ethiopia by using panel data of seven private commercial banks from year 2002 to 2011. He used quantitative research approach and secondary financial data are analyzed by using multiple linear regressions models for the three bank profitability measures; Return on Asset (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). He applied fixed effect regression model to investigate the impact of capital adequacy, asset quality, managerial efficiency, liquidly, bank size, and real GDP growth rate on major bank profitability measures i.e., (ROA), (ROE), and (NIM) separately. Beside this, he used primary data analysis to solicit mangers perception towards the determinants of private commercial banks profitability. The empirical results shows that bank specific factors; capital adequacy, managerial efficiency, bank size and macro-economic factors; level of GDP, and regulation have a strong influence on the profitability of private commercial banks in Ethiopia.

Krama and Tekeste (2012) under their paper, "Determinants of Profitability of commercial bank in developing Economy: Evidence from Ethiopia "of data from 2000-2009 used fixed panel regression. The researchers concluded that internal factors: Equity to total asset, non-interest income to total income, bank size proxied by log total asset had significant and positive impact on profitability and liquidity risk had significant negative impact on profitability. Whereas, loan loss provision had negative relationship but no impact on profitability.

The profitability is measured in terms of ROAA. Of external factors, both inflation and GDP were insignificant but had positive relationship with ROAA. Also forwarded that commercial banks of Ethiopia should use assets in more productive area than holding them in their reserve account (lowering liquidity position). And spread is Very high which indicates the lending rate is far higher than deposit rate and this implies that competition in banking sector is weak in Ethiopian commercial banks.

Amdemikael (2012), Carried out study to examine the bank-specific, industry-specific and macro-economic factors affecting bank profitability for eight commercial banks operating in Ethiopia covering the period of 2000-2011. He adopts a mixed research approach by combining documentary analysis and in-depth interviews. He used ROA as a dependent variable and capital strength, operational efficiency, income diversification, liquidity risk, bank size, asset quality, industry concentration level, real GDP growth and inflation as independent variables. The findings of the study show that capital strength, income diversification, bank size and gross domestic product have statistically significant and positive relationship with banks‟ profitability. On the other hand, variables like operational efficiency and asset quality have a negative and statistically significant relationship with banks‟ profitability. However, the relationship for liquidity risk, concentration and inflation is found to be statistically insignificant.

Melaku (2011) studied “determinants of bank profitability in Ethiopia; a case study of private commercial banks” the data were obtained from audited financial statements of six sampled private commercial banks for the period of 2004-2012 and national bank of Ethiopia. The researcher was used return on assets as dependent profitability variables. It’s finding show that bank specific determinants were very important in explaining profitability than external variables. the asset size, capitalization, labor productivity, liquidity, and non-interest income were positively and significantly related to bank’s profitability, while credit risk and overhead efficiency a have negative impact on profitability of bank specific drivers.

2.3 Conclusion and knowledge gap

The various possible explanations and analyses from writers on the banking sector performance are: The very important point from here above all is that there is no consistent finding on each variable's significance and relationship as well as model selection on performance measured in terms of profitability. Those differences might mostly came from difference in Financial market system of different country, the Regulation framework from regulator, Economic policy of the country, sample time horizon, as well as type of variables incorporated in the model and the type of model they used. Some of the gaps noticed from those above literatures reviewed; Inconclusive on determinants of profitability across country.

In general, Review of previous literatures reveal that number of studies has been done in the context of financial performance. However, in the context of Ethiopia to the researcher's best knowledge, no very recent sufficient studies covering long time data have been found. This specific paper different from those reviewed academic journals study papers by considering very recently with long time audited financial statement as well as more number of banks and independent variables involved in the study. Hence, an attempt is made to fill this research gap. Therefore, the objective of this study is to identify the determinants of the financial performance of commercial banks (selected) operating in Ethiopia

2.4 Conceptual Framework

According to Magenta and Mugenda (2003), a conceptual framework helps reader to quickly see proposed relationships between variables in the study diagrammatically. The conceptual framework is developed from the review of literature discussed above and presented in the diagram below. It shows the relationship between the dependent variable ROA proxy to financial performance and explanatory variables capital adequacy, asset quality, management efficiency, earning ability, liquidity management, bank size, and inflation.

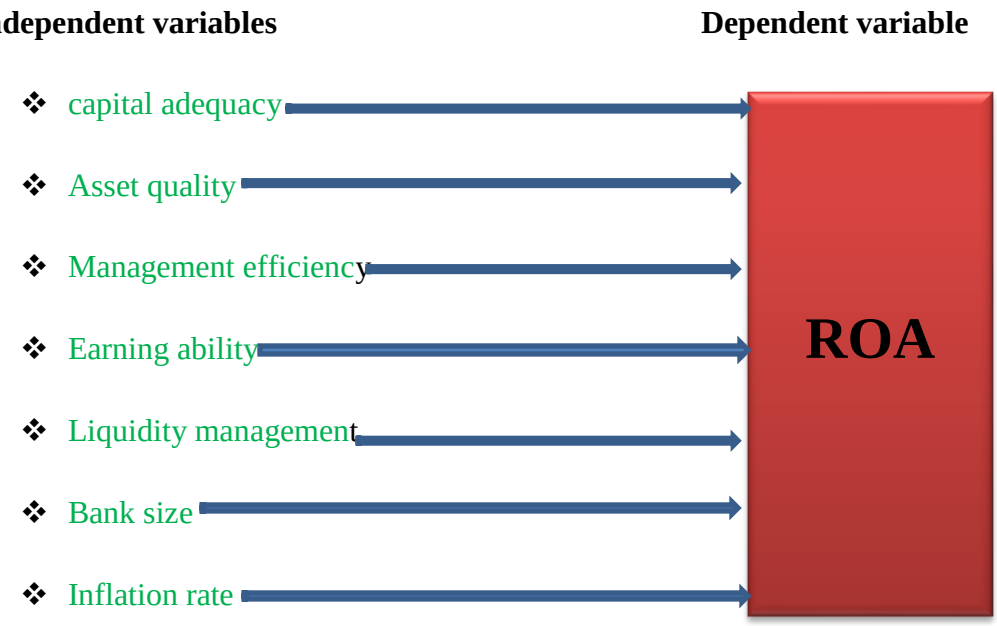


Figure 1. Source: researcher's own design.

CHAPTER THREE

Research Design and Methodology

3.1 Research design

The researcher employed quantitative research methodology and an explanatory research design to achieve the study's overall objectives, which are to investigate the factors influencing commercial banks' financial performance in Ethiopia. Employing an explanatory research design is appropriate because the objective of the study is to investigate how the dependent variable interacts with the independent variable (causal relationship). In the study, balanced panel data is used. Panel data suggests that is a technique for researching a specific subject across numerous sites, periodically observed over a set period of time (Yaffe, 2003). This suggests that panel data or longitudinal data includes both cross-sectional and time-series elements; the cross-sectional element is reflected by various commercial banks, and the time-series element is reflected in the period of study (2000-2021).

According to Tobias & Themba (2011), the advantages of using panel data are the ability to control for individual heterogeneity and less collinear variables, and to track data trends that simple time series or cross-sectional data cannot provide. . In addition, the study draws on secondary data from the audited financial reports of the commercial banks, surveyed the annual reports of the National Bank of Ethiopia. And this Secondary data are analyzed with stata-14 software.

3.2 Research approach

3.2.1 Population of the study

All commercial banks operating in Ethiopia was used as the study population to determine the factors affecting the performance of Ethiopian commercial banks. There are currently around 28 commercial banks operating in Ethiopia, including newly established banks. Detailed annual balance sheet and income statement information of Ethiopian commercial banks used as the primary data source to gather key information for research. This is a balanced panel covering the period from 2000 to 2021 G.C. Ethiopian commercial banks not established before 2000 and filing financial statements after 2000 are excluded from the sample. Therefore, the study population includes 28 Ethiopian commercial banks.

3.2.2 Sampling Method

All banks operating in Ethiopia are included in the survey. However, banks established before 2000 and without audited financial statements after 2000 were excluded from the sample due to lack of experience and lack of data during the study period. For this reason, this study used a sampling methodology of 28 commercial banks currently operating in Ethiopia, and covers seven banks that were established before 2000 and their financial statements have been audited since 2000 GC.

List of the sampled commercial banks in Ethiopia

No	Commercial Bank	Year of establishment
1	Commercial Bank of Ethiopia	1963
2	Awash International Bank	1994
3	Dashen Bank	1995
4	Bank of Abyssinia	1996
5	Wegagen Bank	1997

6	United Bank	1998
7	Nib International Bank	1999

Source; NBE

3.2.3 Source and types of data

According to Yuqi (2006) secondary data has its own advantages. Compared to primary data, secondary data gives higher quality data, the feasibility to conduct longitudinal studies and the permanence of data which means secondary data generally provide a source of data that is both permanent and available in a form that may be checked relatively easily by others. Therefore, to increases the dependability of the data, the study used secondary data which was based on the audited financial statement of the banks which are readily available on their website or would be collected in person and archives as well as the macroeconomic data collected from National Bank of Ethiopia annual reports, and other published and unpublished documents. The researcher believes that the period of twenty two years data is sufficient to track the determinants of financial performance of commercial banks in Ethiopia for the balanced panel data.

3.2.4 Data analysis

The Collected data is processed, coded and cleaned up. The data are then analyzed using econometric software (STATA 14). A multiple linear regression model and t-statistic were used to determine the relative importance (sensitivity) of each explanatory variable in affecting the performance of banks. To achieve the broad research objective, the paper is primarily based on panel data, which is collected through structured document review. Thus, the collected panel data is analyzed using descriptive statistics, correlations and multiple linear regression analysis. Mean values and standard deviations used to analyze the general trends of the data from 2000 to 2021.

A correlation matrix also used to examine the relationship between the dependent variable and explanatory variables. For this study, the regression analysis known as OLS used to estimate the relationship between profitability and its determinants. The multiple linear regressions model and OLS conducted using STATA 14 econometric software package to test the casual relationship between the firm's profitability and their potential determinants and to determine the most significant and influential explanatory variables affecting the profitability of Ethiopian banks.

3.3 Model Specification

The researcher formulated the some econometric models which are a representation of the basic features of an economic phenomenon so as to achieve the broad research objective. It is an abstraction of the real world. The specification of a model is based on the available information relevant to the study in question. The previous studies that have been reviewed from literature made on financial performance of commercial banks were focused on different financial variables such like Return on Assets (ROA), Return on Equity (ROE) and Net Interest Margin (NIM).

According to Jah & Hui (2012) and Ali Akhtar & Ahmed (2011), the performance indicators are ROA and ROE jointly. While Ahmed (2011) claim ROA as performance indicator and also according to (Siddiqui & Shoaib 2011) used ROE as performance indicator. For this the study purpose, the researcher taken Return on Asset (ROA) as the major dependent variables for performance measurement. The following model used to study the determinants of financial performance of commercial banks in Ethiopia.

According to this model, financial performance is a function of capital adequacy ratio, asset quality, management efficiency, earning ability, liquidity ratio, bank size, and inflations.

Hence, the modes take the following form:

$ROA=\beta o+\beta 1CA+\beta 2AQ+\beta 3ME+\beta 4EA+\beta 5LM+\beta 6BS+\beta 7IFR+E$, *Where,*

ROA= Performance of Bank i at time t as expressed by return on assets

CA =Capital Adequacy of bank

AQ= Asset Quality of bank

ME = Management Efficiency of Bank

EA=earning ability

LM=Liquidity Ratio of Bank

BS=bank size

INFR=inflation rate

$\beta 0$ *= Constant*

e= Error and $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, $\beta 5$, $\beta 6$, *and* $\beta 7$ are parameters of the independent variables.

Operationalization of the Study Variables

This section presents the measurements that were used to operationalize the study variables.

Variables	**Measurement**
ROA	Total income to its total asset
CAR	Total capital to total asset
AQR	Non-performing loans to total loans
ME	Total Operating Revenue to Total Profit
EA	Operating income to total asset
LM	Total Loans to Total Customer Deposit
BS	log of total asset
INFR	Annual inflation rate

3.5 Model Assumption

The following diagnostic tests were carried out to ensure that the data suits the basic assumptions of classical linear regression model:

Autocorrelation: to test for autocorrelation the researcher applied Breusch-Godfrey Serial Correlation LM test.

Normality: To check for normality, descriptive statistics used. Kurtosis and Skewness of the distribution of the data has been examined.

Multicollinearity: The existences of strong correlation between the independent variables were tested using Variance Inflation Factor (VIF) and correlation coefficient.

Heteroscedasticity: There are several tests to detect the Heteroscedasticity problem, which are Park Test, Glesjer Test, Breusch-Pagan-Gold Frey Test, White's Test and Autoregressive Conditional Heteroscedasticity (ARCH) test. In this case, to avoid the problem of Heteroscedasticity of disturbance terms, White's Test was employed in establishing the relationship.

3.6 Data Analysis and Presentation

The collected data was analyzed by using Stata-14 software. The descriptive statistics and the correlation analysis also discussed. Followed by the diagnostic test, which is necessary to fulfill the assumption of the classical linear regression model. Then, econometric analysis and discussion of the main finding of the study is presented. Finally, the results of the regression analysis are discussed by supporting empirical evidence.

Chapter four

Data Analysis and Presentation

This chapter describes the analysis and presentation of research results. The Data's are analyzed with the economics software of stata-14. The researcher discussed descriptive statistics and correlation analysis followed by diagnostic tests necessary to satisfy the assumptions of classical linear regression models. Then after, it is followed by a discussion of the econometric analysis and the main findings of the study. Finally, the researcher discussed the results of the regression analysis using empirical evidence.

4.1. Descriptive statistics

In this part, the researcher presents descriptive statistics for the dependent and independent variables that were used in the Sample of Bank study. The dependent variable used in the study was ROA, and the independent variables were capital adequacy, asset quality, liquidity management, management efficiency, bank size, earning ability and annual inflation rate. Thus, there were 154 total observations for each dependent and explanatory variable (panel data from these 7 commercial banks over 22 years). Table 4.1 shows the mean, standard deviation, minimum and maximum values of the dependent and independent variables for the sample bank over the period 2000-2021.

ROA measured by dividing net income before tax to total asset averages 3.7%. This shows that the sample bank earned on average net income before tax of 3.7% of the total asset. ROA indicates the operational efficiency of a firm in producing this much (3.7%) net income before tax out of all banks resources. so a higher ROA indicates a more efficient use of resources by the bank. The maximum ROA was 23.7 and the minimum was -2.158817, meaning that the most profitable bank within sampled banks earned 23.7 cents of net income before tax for each birr invested in the assets of that bank, and the least profitable banks within the sampled banks incurred a loss of 2.16 cents for each birr investment in the assets of the bank.

For the independent variables, the median for CAR, measured as total capital divided by total assets, is 12.03 percent. The maximum and minimum values are 29.4 percent and 3.7 percent

respectively. The standard deviation of capital adequacy ratio was 4.37%. The second independent variable used in the study was asset quality ratio (AQR), which is measured by dividing non-performing loans by total loans. The mean is 3.87, the maximum and minimum are 28.97 and 0 respectively. The third independent variable used in the study is ME, the mean is 36.87, the maximum and minimum are 111 and 13.4 respectively. Regarding to variable EA, it has a mean value of 65.88 with maximum and minimum value of 95.8 and 65.88 percent respectively.

About LM, it has a mean value of 68.48 with maximum and minimum value of 115.79 and 29.68 percent respectively. Regarding to variable BS, it has a mean value of 9.98 with maximum and minimum value of 11.99 and 8.15 percent respectively.

Finally, Regarding to INFR, it has a mean value of 13.23 with maximum and minimum value of 55.24 and -10.77 percent respectively. Additionally, the standard deviation for bank size was 0.78 percent. This means that the total assets of the selected commercial banks fluctuated slightly during the study period.

Table 4.1 Summary of descriptive statistics

Variables	Observation	Mean	Max	Min	Std.dev.
ROA	154	3.724114	23.52941	-2.158817	4.672089
CAR	154	12.02801	29.43925	3.72	4.374116
AQR	154	3.869031	28.97229	0	4.420636
ME	154	36.86677	111.1554	13.46144	11.33055
EA	154	65.88249	95.8	38.64	11.26517
LM	154	68.48594	115.7895	29.68698	16.25662
BS	154	9.986028	11.9962	8.1553	.786413
INFR	154	13.23281	55.24131	-10.77339	13.50225

Source: computed from Stata -14 result

4.2 Results of Testing the Assumptions of the Classical Linear Regression Model

As mentioned in Chapter 3, in this study diagnostic tests were performed to ensure that the data fit the basic assumptions of the classical linear regression model.

4.2.1 Tests for Heteroscedasticity

In this study, as shown in Table 4.2 below, both the F-statistic and the chi-square version of the test statistic reach the same conclusion that there is no evidence of Heteroscedasticity because the p-values are greater than 0.05. Both the F-statistic and chi-square (χ 2) test give the same conclusion that there is no significant evidence for the presence of Heteroscedasticity. The p-value was well above 0.05, which caused the problem of Heteroscedasticity. Therefore, there is no evidence that shows the presence of Heteroscedasticity.

Table 4.2 Heteroscedasticity Test: White

F-statistic 1.274	Prob. F (54, 41)	0.211
Obs*R-squared 60.159	Prob. Chi-Square (54)	0.263
Scaled explained SS 49.980	Prob. Chi-Square (54)	0.630

Source: from STATA output

4.2.2 Test for Autocorrelation

The Durbin-Watson test statistic in Table 4.3 was 2.003. As mentioned in the previous chapter, 154 (7*22) observations were used in the model for the empirical analysis of the factors affecting the profitability of Ethiopian commercial banks. Additionally, the model had 7 regressor and 1 intercept term. Therefore, the relevant critical values for the test are dL = 1.443, dU = 1.88, i.e. for H. 154 observations and 7 regressor', and 4 - dU = 4-1.88 = 2.12. 4-dL = 4-1.443=2.557. The Durbin-Watson test statistic of 2.003 is well between the upper bound (dU) of 1.88 and the critical value of 4-dU (that is, dU) H 2.12. So that, null hypothesis is in the range within the non-rejection region of the number line, so there is no evidence that autocorrelation exists.

Table 4.3 Autocorrelation Test: Durbin Watson

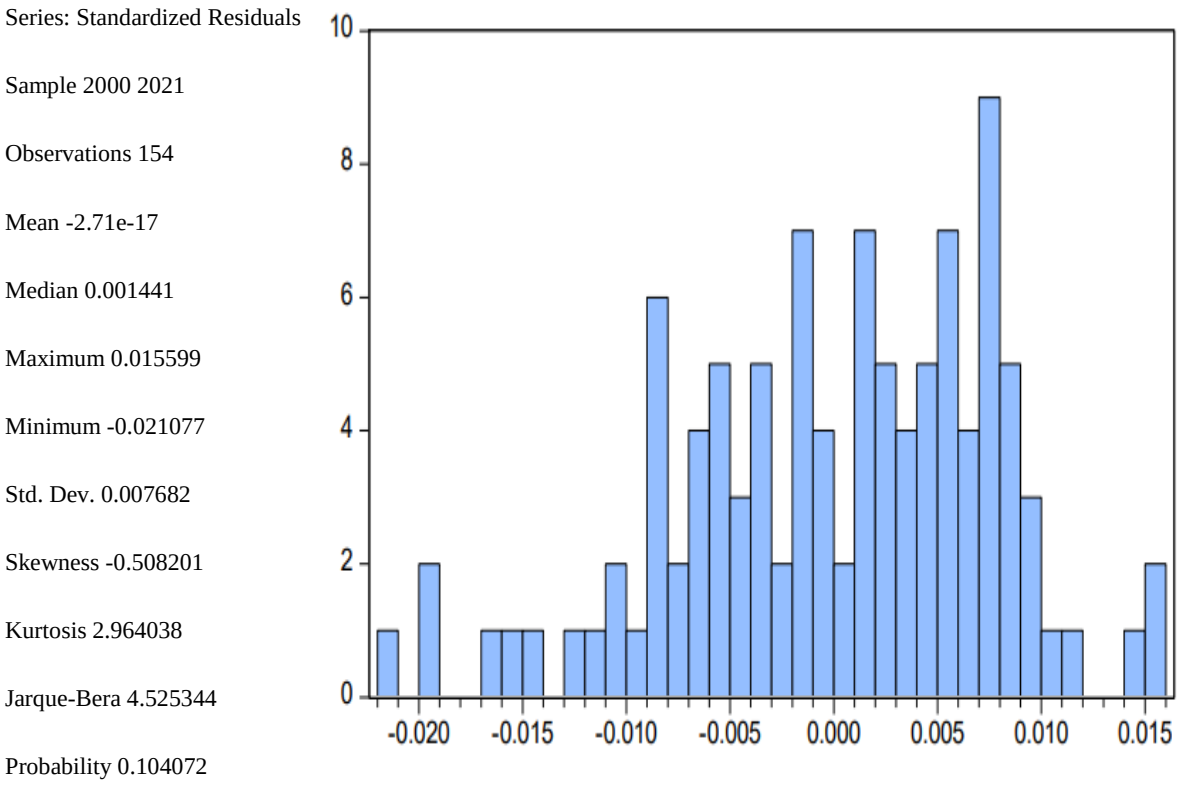
Variables	DW test static result
All Bank specific and macroeconomic	2.003

Source: STATA 14 output

4.2.3 Test for normality

According Brooks (2008) normality assumption is about the mean of the residuals is zero. In this study, the normality of the data was checked by using Bera-Jarque statistic test. In the normality test of this study, as shown in Figure 4.1, the kurtosis coefficient is close to 3 and the Bera-Jarque statistic has a P-value of 0.104 (which is greater than 0.05), indicating that the data are consistent with the normality assumption.

Figure 4.1 Normality test for dependent variable (ROA)



4.2.4 Test for Multicollinearity

The correlation matrix between independent variables is shown in Table 4.4 below. Data correlations among independent variables were relatively low with the maximum value of 0.5024 between capital adequacy (CA) and liquidity management (LM), as shown in Table 4.4. These low correlation coefficients indicate the absence of multicollinearity issues in this study. Furthermore, Kennedy (2008) found that multicollinearity problems exist when the correlation coefficient between variables exceeds 0.70. However, there are no correlation coefficients above or near 0.70 in this study. Therefore, there are no multicollinearity issues in this study, making the regression analysis more reliable.

Table 4.4 Correlation matrixes of independent variables

	CAR	AQR	ME	EA	LM	BS	INFR
CAR	1.0000						
AQR	-0.4164	1.0000					
ME	0.1192	0.1308	1.0000				
EA	-0.0773	-0.2853	0.2331	1.0000			
LM	0.5024	-0.3402	0.2998	0.2317	1.0000		
BS	-0.5023	0.0187	-0.1955	0.3412	-0.6017	1.0000	
INFR	-0.0859	-0.0675	-0.1374	-0.0505	-0.1100	0.2830	1.0000

Source: from STATA 14 out put

4.3 Correlation analysis among variables

As it can be seen from Table 4.5 below, liquidity management was the variable worst negatively correlated with ROA with the value of -32.9%. This correlation clearly shows that profitability decreases as liquidness of the bank increases. On the other hand, the expense income ratio and the ratio of bad debts to total loans (ME) appear to be the most positively correlated with the profitability with the value of 25.73%, suggesting that profitability moves in the same direction as long as the management of the bank is efficient in expenses and bad debts. In general, Capital adequacy ratio, management efficiency and bank size were positively correlated with ROA, as indicated by a correlation of 15.70%, 25.73% and 19.73% respectively. However, asset quality, liquidity management, earning ability and inflation were negatively correlated with profitability, as indicated by a correlation of 12.40%, 32.90%, 9.51% and 3.25%.

Table 4.5 Correlation matrix of dependent and independent variables

	ROA	CAR	AQR	ME	EA	LM	BS	INFR
ROA	1.0000							
CAR	0.1570	1.0000						
AQR	-0.1240	-0.4164	1.0000					
ME	0.2573	0.1192	0.1308	1.0000				
EA	-0.0951	-0.0773	-0.2853	0.2331	1.0000			
LM	-0.3290	0.5024	-0.3402	0.2998	0.2317	1.0000		
BS	0.1973	-0.5023	0.0187	-0.1955	0.3412	-0.6017	1.0000	
INFR	-0.0325	-0.0859	-0.0675	-0.1374	-0.0505	-0.1100	0.2830	1.0000

Source: from STATA 14 output

4.4 Results of regression analysis

This section presents the overall results of the regression analysis on the determinants of bank financial performance. ROA was used as a proxy for performance measurement in this study. Regression analysis results are displayed in the table below. Table 4.6 shows the ROA regression analysis. In this regression analysis, the dependent variable is ROA and the independent variables are CAR, AQR, EA, LM, BS, ME, and INFR.

The estimation results shown in Table 4.6 show that the model fits well with R-squared and adjusted R-squared values of 0.60 and 0.58, respectively

Dependent Variable: ROA

Method: Panel EGLS (Cross-section random effects)

Sample: 2000- 2021

Periods included: 22

Cross-sections included: 7 (number of selected banks)

Total panel (balanced) observations: 154=7x22

Table 4.6 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.021115	-0.040061	-1.03397	0.29990
CAR	0.04999	0.026709	-1.762000	0.0000***
AQR	-0.079075	0.025413	3.111584	0.00024*
EA	-0.079807	0.014234	-5.606965	0.0000***
LM	-0.043343	0.010307	-4.205289	0.1895
BS	0.009231	0.006972	-1.324135	0.0001*
ME	0.012367	0.002514	4.920205	0.0000 ***
INFR	-0.000610	0.000318	-1.919195	0.0571

Effects Specification

	S.D.	Rho
Cross-section random	0.002673	0.1383
Idiosyncratic random	0.007820	0.8927

Weighted Statistics

R-squared	0.600587	Mean dependent var	0.017241
Adjusted R-squared	0.575921	S.D. dependent var	0.011581
S.E. of regression	0.007412	Sum squared resid	0.005483
F-statistic	24.53958	Durbin-Watson stat	1.598031
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.576795	Mean dependent var	0.033670
Sum squared resid	0.006238	Durbin-Watson stat	1.395548

Source: computed from STATA result

The estimation results reported in Table 4.6 above show that, the value of R-squared and Adjusted R-squared is 0.60 and 0.58 respectively. This indicates that the model is a good fit. This means that more than 58% of the variability in return on asset for Ethiopian commercial banks was explained by the independent variables included in the study model. However, the remaining of 42% change in Ethiopian commercial banks' return on asset is driven by other factors not included in the model. And all independent variables collectively play an important role in driving the variability of the return on investment.

The panel random effects estimation results in Table 4.6 above show that the coefficient intercept (α) is -0.021115. That is, when all independent variables are zero, the mean ROA is become 0.021115 units.

- **Capital adequacy ratio on return on asset**;

As shown in the Table 4.6 above, the Capital Adequacy Ratio (CAR), measured as total capital relative to total assets, is 0.04999 and its P-value is 0.0000. When the other independent variables are held constant at their mean values, 1% increase in capital adequacy ratio (CAR) will increase the banks profit (ROA) by 5%. Therefore, the researcher could not reject the null hypothesis that stated capital adequacy has a significant impact on ROA. This means that there is insufficient evidence for an insignificant relationship between CAR and ROA. This relationship is positive and has a significant effect, as expected, and this positive and significant relationship between CAR and ROA can be attributed to the fact that banks with higher capital ratios have higher financial performance (ROA).

This finding is consistent with previous studies Athanasoglou, Sophocles & Mathaios (2005), Flamini, Valentina, McDonald & Liliana (2009); Naceur & Goaied (2001), and Belayneh (2011). These researchers concluded that banks with a strong capital base can seize business opportunities more effectively and have more time and flexibility to deal with problems arising from unexpected losses, resulting in more profitable. A possible reason for the apparent positive and significant relationship is that Ethiopian commercial banks have more capital, so increased capital levels lead to better financial performance. Banks can easily comply with regulatory capital standards, making surplus capital available for lending. Generally, the researcher concluded that capital adequacy is one of the main determinants of financial performance (ROA) of commercial banks in Ethiopia.

- **Asset Quality Ratio (AQR) on Return on Asset (ROA)**.

Table 4.6 shows that the value of asset quality ratio (AQR) coefficient of non-performing loans to total loans is -0.079075 and its P-value is 0.0024. Holding the other independent variables constant at their means, a 1% increase in the asset quality ratio (AQR) was associated with an 8% decrease in the return on assets (ROA) of the seven sampled Ethiopian commercial banks, reaching the significance level becomes statistically significant at 1%. This means that asset quality affects profitability of the banks negatively and significantly. So, the study is failed to reject the null hypothesis that stated asset quality is negatively and significantly affects the performance (ROA) of the Ethiopian commercial banks.

As expected, this relationship is negative and significant, and this significant and negative relationship between AQR and ROA can be attributed to the fact that banks with high bad debts have poor financial performance (ROA). This finding is consistent with previous work by Bourke (1989), Yuqi (2006), and Tobias & Themba (2011). Deteriorating asset quality is one of the main causes of bank failures.

High bad debt combined with poor financial performance (ROA). A possible reason for the significant negative correlation could be the low agreeability of on-schedule loans and their interest income in Ethiopian commercial banks.

- ***Earning Ability (EA) and return on investment (ROA);***

Table 4.6 above shows that the earning power coefficient (EA), measured as interest income relative to total income, is -0.079807 and its P-value is 0.000. Holding the other independent variables constant at their means, a 1% increase in earing ability (EA), would reduce profitability (ROA) of the sampled Ethiopian commercial banks by 8%, reaching the 1% significance level becomes statistically significant. Therefore, researcher could not reject the null hypothesis that stated earning ability affects profitability of the bank (ROA) significantly. This means that there is no sufficient evidence for an insignificant effect of EA on ROA.

As expected, this variable affects ROA significantly and negatively, and this negative relationship between EA and ROA can be attributed to the fact that banks that focus on interest income sources over other income sources have lower financial performance (ROA). This finding is consistent with previous studies by Rasiah (2010), Sufian F. (2011), and Belayneh (2011). A possible reason for the significant negative association is the focus on interest income while ignoring or giving less attention to the other sources of income may be undermining the financial performance (ROA) of Ethiopian commercial banks. This may indicate that Ethiopian commercial banks must work to diversify their income and take in to consideration the impact of other sources of income in addition to their interest income sources.

- ***Liquidity Management (LM) and Return on Assets (ROA);***

Table 4.6 above shows that the value of Liquidity Management (LM) coefficient, measured as total loan to total deposits, is -0.043343 and its P-value is 0.1895. Holding the other independent variables constant at their mean values, a 1% increase in liquidity management (LM) would reduce the profitability (ROA) of the sampled Ethiopian commercial banks by 4%, and also it has insignificant effect in determining the profitability of Ethiopian commercial banks.

Therefore, the researcher rejects the null hypothesis that stated this variable has a significant effect in determining the profitability of Ethiopian commercial banks. There is an insignificant and negative association between LM and ROA. This means that there is insufficient evidence for a significant positive association between LM and ROA. Commercial bank liquidity management considered in this study has no significant positive effects with return on capital. This result is consistent with the finding of many previous studies such as Bourke (1989), Yuqi (2006), Tobias & Themba (2011) found this to have no significant effects on return on asset. On the other hand, Said & Mohd (2011) got the opposite finding.

- ***Bank size (BS) and return on Asset (ROA)***;

Table 4.6 above shows that the bank size factor (BS) measured by the logarithm of total asset is 0.009231 and its P-value is 0.0001. Holding the other independent variables constant at their means, a 1 birr increase in bank size (BS) would increase the profitability (ROA) of sampled Ethiopian commercial banks by 0.92%. This shows that bank size has a significant and positive effect in determining the profitability of Ethiopian commercial banks. Therefore, the researcher couldn't reject the null hypothesis that stated BS has significant effects on ROA. This means, there is no sufficient evidence to support the insignificant negative effect of bank size on ROA.

This effect is significant as expected. The result is consistent with the previous studies of Gul, Faiza, & Khalid (2011), Athanasoglou, Delis, & Staikouras (2006), Sufian & Shah (2009), Weersainghe & Ravinda (2013), Yadollahzadeh, Ahmadi, & Soltan (2013), Sarita, Zandi, & Shahabi (2012). The possible reason for the significant positive relationship could be that, banks in large size perform better than the smaller banks due to the existence of economies of scale in the nation.

- **Management efficiency (ME) and Return on Asset (ROA)**

Table 4.6 above shows that the value of management efficiency (ME) total operating revenue to total operating profit measured is 0.12367 and its P-value is 0.0001. Holding the other independent variables constant at their means, a 1% increase in management efficiency (ME) would increase the profitability (ROA) of sampled Ethiopian commercial banks by 12.34%. As expected, management efficiency of the bank has a significant and positive effect in determining the profitability of Ethiopian commercial banks. This finding is consistent with previous studies Rahman et al. and Ilhomovich (2009), and Sangmi & Nazir (2010).

According to these researchers, the higher the operating profits to total income (revenue), the more the efficient management is in terms of operational efficiency and income generation. And higher the management efficiency levels of a firm, higher its profits level. This has indicated that minimizing Ethiopian commercial banks expenses would certainly improve the banks financial performance in general and ROA in particular. Therefore, the finding of this study shows that in Ethiopian banking industry, the banks with efficient management perform better than less efficient one. This finding may become an important tool for management decision makers of the respective banks.

- **Inflation Rate (INFR) and return on asset (ROA);**

Table 4.6 above depicted that, the coefficient of Inflation rate (INFR) is -0.000610 and its P-value are 0.0571. Holding other independent variables constant at their average value, when (INFR) increased by 1%, return on asset of sampled Ethiopian commercial banks would be decreased by 0.060%, but statistically insignificant at 5% of significance level. In other words, there is insignificant negative relationship between INFR and ROA of Ethiopian commercial banks. Therefore, the researcher failed to support the null hypothesis that stated inflation has a significant effect on ROA. This means that there is insufficient evidence for its significant effect on ROA. However inflation couldn't affect financial performance of Ethiopian commercial banks, it has an insignificant negative relation with ROA. This may be because of that, the existence of a lower real interest rate that is obviously lower than the real inflationary rate, resulting in costs increased faster than revenues. This is the reason why the negative relationship is shown between INFR and ROA. The result is consistent with the result found by Amdemikael (2012), Evans (2014), and Songul (2013).

4.5 summary of analysis

Table 4.7 Summary and Comparison of test result with expectation.

Independent variables	**Expected Stastical significance**	**Actual statistical significance**	Hypothesis status
CAR	Significant	significant at 1%	Failed to reject
AQR	Significant	significant at 1%	Failed to reject
EA	significant	Significant at 1%	Failed to reject
LM	significant	Non-significant	Reject
BS	significant	Significant at 1%	Failed to reject
ME	significant	significant at 1%	Failed to reject
INFR	significant	Non-significant	Reject

Source stata 14 output

As shown from the above summary table 4.7 the independent variables: liquidity management and annual inflation are deviated from the expected results i.e. the researcher hypothesized significant effect on ROA but the finding result is insignificant effect. So, the possible reason for the insignificancy of liquidity management in making impact on ROA could be attributed to the fact that, Ethiopian banks hold more liquid assets rather to disburse it as a loan and earn interest income as well as. And the possible reason for the insignificancy of annual inflation in making impact on ROA may be because of that, the existence of a lower real interest rate that is obviously lower than the real inflationary rate, resulting in costs increased faster than revenues collected by the respective Ethiopian commercial banks.

Chapter five

Summary, Conclusions and recommendations

5.1 Summary

The main purpose of this study was to examine the determinants of financial performance in cases of Ethiopian commercial banks. According to previous literature, determinants of financial performance are influenced by both internal and external factors.

Internal factor is a factor that primarily affected by the management of a bank (also called a bank specific factors). These factors related to this literature include capital adequacy, asset quality ratio, liquidity management, management efficiency, earning ability and size of the bank. Whereas, external factors represent events outside the society or Macroeconomic factors like inflation.

Independent variables capital adequacy, asset quality, liquidity management, management efficiency, earning ability, size of the bank and annual inflation were used to regress the dependent variable of return on asset. A 22 years balanced panel data was used of seven banks. The data was collected from each bank audited annual balance sheet via national bank of Ethiopia. The data was analyzed using descriptive statistics and multiple regression analysis. Analyzes were performed accordingly with specific research objectives and hypotheses that were formulated in to test.

All diagnostic tests including multicollinearity, heteroscekedasticity, Normality and autocorrelation were established in classical linear regression models and tested using stata-14 econometrics software. Based on this analysis, the researcher assured that the data was normal, has homoscedasticity (has no heteroscekedasticity), no autocorrelation, and has no multicollinearity. CAR, AQR, EA, BS, and ME have very important Impact in determining financial performance of Ethiopian commercial banks. However, LM and INFR have no that much significant impact in determining financial performance of Ethiopian commercial banks. CAR, BS and ME have positive coefficients, but AQR, EA, LM, and INFR have negative coefficient. Explanatory variables used in the study synthetically explain about 58% of the variability in return on asset or investment.

5.2 conclusions

Financial performance is assumed to be one of the most important factors that have impact on the decision making of the resource providers or investors. So that, to ensure the existence in the ever growing competitive business environment, every banks should be more concerned about the factors affecting their financial performance. This study was conducted specifically to identify the determinants of the financial performance of the commercial banks operating in Ethiopia. An attempt has been made to identify determinants of financial performance of commercial banks within the scope of the study. For this purpose seven commercial banks namely, commercial bank of Ethiopia, Bank of Abyssinia, Awash international bank, Dashen bank, Wegagen bank, United bank and Nib international bank ,have been taken as a sample covering the period from 2000- 2021GC.

To draw conclusion, this study has been conducted to investigate the significance effect of the independent variables on the dependent variable. A multiple regression model has been used by considering financial performance (ROA) as dependent variable and capital adequacy ratio, management efficiency, assets quality, liquidity management, earning ability, bank size and annual inflation rate used as an explanatory variable of ROA.

The result shows capital adequacy ratio, bank size, management efficiency, earning ability, and asset quality have a significant effect in determining the financial performance of Ethiopian commercial banks. On the other side, liquidity management and inflation have not significant effects in determining the financial performance of Ethiopian commercial banks. The beta coefficients of CAR, AQR, ME, BS, and EA are statistically significant. While LM and INFR were non-significant. It can be concluded that capital adequacy ratio, assets quality, management efficiency, bank size and earning ability have significant while liquidity management and annual inflation have insignificant impact on the return on assets in Ethiopian commercial banks.

Finally, the researcher believed that the intention of the study is fully achieved. As it was expressed in the specific objectives of the study section, the researcher tried to dig out the effect of each factors included in the study on the financial performance of commercial banks. And based on the study finding, the effects of each variable on determining of profitability of the commercial banks are presented in the data analysis section of this study.

5.3 Recommendations

Based on the study results, the financial performance of Ethiopian commercial banks was measured and in the last, the finding of the measurement is provided. Certain (internal) factors make need pay attention in order to improve the financial performance of the commercial banks. Based on the finding, the researcher founded that capital adequacy, asset quality, management efficiency, bank size and earning ability should be taken as serious factors as they found to be important factors in determining the profitability of the banks.

This study tried to examine the determinants of financial performance of commercial banks in Ethiopia. However, the researcher believes that variables included in the study may not been exhaustively enough. So that, other researchers may include the rest unseen bank specific and macroeconomic variables.

Finally, for the past decades, the banking environment in Ethiopia has undergone regulatory and financial reforms like other African countries and the rest of developing world did. These reforms have brought about many structural changes in the banking sector of the country and have also encouraged private banks to enter and expand their operations in the industry. For instance, for the last four years after political environment change, many private banks have established and joined the banking industry. And also the government of Ethiopia has decided to amends laws to allow foreign investments in the country's banking sector. By doing so, it would transform the country's economy by boosting it to have a better link with the international bank and would encourage competition, enhance foreign currency inflows and also generate more jobs. Making an extensive study on this area after the coming of foreign investors to the banking sectors would be the assignment of the next researchers.

References

Aburime, U. (2005). Determinants of Bank Profitability*: Company-Level Evidence from Nigeria: University of Nigeria, Enugu Campus.*

Acharya, S. (1992). Evaluating the Comparative Financial Performance of Nepal Arab Bank and Indosuez Bank. *Journal of Finance, 12(2), 25-32.*

Ahmed, A. A. (2011). Financial Performance Evaluation of Some Selected Jordanin Commercial Banks *International Research Journal of Finance and Economics, Vol. 6(4), pp. 50-63.*

Al-Tamimi, H., & Hassan, A. (2010). Factors Influencing Performance of the UAE Islamic and Conventional National Banks. *Department of Accounting, Finance and Economics, College of Business Administration, University of Sharjah.*

Amdemikael, A. (2012). Factors Affecting Profitability of Ethiopian Banking Industry", *MSc Thesis, Addis Ababa University.*

Athanasoglou, P. P., Sophocles, N. B., & Matthias, D. D. (2005). Bank-specific, industry specific and macroeconomic determinants of bank profitability. *Working paper, Bank of Greece. Vol. 1(1), pp. 3-4.*

Alam H. M., Raza A., Akram M. (2011). A financial performance comparison of public vs. private banks: The case of commercial banking sector of Pakistan. *International Journal of Business and Social Science, 2(11), 56-64.*

Azebu Bekele Bacha (2007) "Determinants of banking performance in Ethiopia." *Journal of Business and Economics Vol. 4(50), pp. 225.*

Alkhatib, A. (2012). Financial Performance of Palestinian Commercial Banks. *International Journal of Business and Social Science. Vol. 3(3).*

Ameur, I., G., Mhiri, S., M., (2013). Explanatory Factors of Bank Performance Evidence from Tunisia. *International Journal of Economics, Finance and Management VOL. 2(1)*

Ayanda, A. M., Christophe I and Mudashiru, M.A. (2013) Determinants of Banks' Profitability in a Developing Economy: Evidence from Nigerian Banking Industry. *Interdisciplinary Journal of Contemporary Research in Business. Institute of Interdisciplinary Business Research 1 5 5*

Athanasoglou PP, Brissimis SN, Delis MD (2008). Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability. Journal of International Financial Markets Institutions and Money 18(2):121-136.

Bikker, J.A. and Bos, J.W. (2006). Bank Performance: A Theoretical and Empirical Framework for the Analysis of Profitability, Competition and Efficiency. Rout ledge International Studies in Money and Banking.

Baltagi, B.H. (2005) Econometric Analysis of Panel Data. England: John Wiley & Sons Ltd, the Atrium, Southern Gate, Chichester, West Sussex PO19 8SQ

Bikker, J., & Hu, H. (2002). Cyclical patterns in profits, provisioning and lending of banks and procyclicality of the new Basel capital requirements. BNL Quarterly.

Badola, B., & Verma , R. (2006). Determinants of profitability of banks in India a multivariate analysis *Delhi Business Review X, Vol. 7(2). pp. 11 - 19.*

Belayneh, H. (2011). Determinants of Commercial Banks profitability of Ethiopian

Chant pong, S. (2005) Comparative Study of Domestic and Foreign Bank Performance in Thailand: The Regression Analysis. The Office of Macroeconomic Policy and Analysis, Monetary Policy Group (MPG), the Central Bank of Thailand, Bangkhunprom, 2005.

Chen, S., Chien-Chang, L. (2009). Are Foreign Banks more Profitable than Domestic Banks?: Home and Host-Country Effects of Banking Market Structure, Governance, and Supervision.

Dhanabhakyam M, Kavitha M (2012). Financial Performance of selected Public sector banks in India. *International Journal of Multidisciplinary Research 2(1): pp. 255- 269.*

Directive.No.SBB/9/95. (2011, December 10). National Bank of Ethiopia, Licensing and Supervision of Banking Business Proclamation No. 84/1994 (1994). Computation of Risk Weighted Asset Business. *[Online], available at http://www.nbe.gov.et. Addis Ababa, Ethiopia.*

Dietrich, A., & Wanzenried, G. (2009). „What Determines the Profitability of Commercial Banks? *New Evidence from Switzerland.*

Dang & Uyen. (2011). the CAMEL Rating System in Banking Supervision: *a Case Study of Arcada* University of Applied Sciences, International Business.

Diamond, D. W., Raghuram, A. (2000). A Theory of Bank Capital. The Journal of Finance *52(6), pp.12- 23.*

Davydenko , A. (2010). Determinants of Bank Profitability in Ukraine. *Undergraduate Economic Review, Vol. 7(1), pp. 9 - 18.*

Deepak, K., & Abebaw, K. G. (2011). Financial performance and ownership structure of Ethiopian commercial banks. *Journal of Economics and International Finance,*

Demirguc-Kunt, A., & Detragiache, E. (2000). Monitoring Banking sector fragility: a multivariate logic approach. *World Bank Economic Review, Oxford University Press, Vol. 14(2), pp. 287-307.*

Detragiache, E., Poonam, G., Thierry, T. (2006) Foreign Banks in Poor Countries: Theory and Evidence. Washington, DC: *Paper presented at the 7th Jacques Polak Annual Research Conference, Hosted by the International Monetary Fund.*

Elyor, S. (2009). Factors Affecting the Performance of Foreign Banks in Malaysia. *A Thesis Submitted in Partial Fulfillment of the Requirements of University Utara Malaysia for the Degree of Master of Science (Banking).from:www.ep3.uum.edu.*

Evans, O. (2014). Effects of macroeconomic factors on commercial banks profitability in Kenya*: Case of Equity bank limited.*

Ezra, M. (2013). Determinants of Commercial Bank Profitability in Sub-Saharan Africa". *International Journal of Economics and Finance, Vol.5*

Flamini, C., Valentina C., McDonald, G., Liliana, S. (2009). The Determinants of Commercial Bank Profitability in Sub-Saharan Africa. *IMF Working Paper.*

Guru, B.K., Staunton, J., Balashanmugam, B., (1999). Determinants of commercial bank profitability in Malaysia. *The 12th Annual Australian Finance and Banking Conference. Sydney, Australia: pp. 16-17*

Gul, S., Faiza, I., & Khalid, Z. (2011). Factors Affecting Bank Profitability in Pakistan. *The Romanian Economic Journal, Vol. 2(3), pp. 6-9.*

Hoenig, T. M. (2010) (ed). Basics for Bank Directors. Federal Reserve Bank of Kansas City, Division of Super vision and Risk Management 5th ed.

Hubbard, R.G., (2002). Money, the Financial System, and the Economy. Pearson Education Inc., 4th ed. USA

Heffernan, S. ((1996)). Modern banking in Theory and Practice. England: John Wiley

Hawawini et al 2003

Habtamu, N. (2012). Determinants of Bank Profitability", An Empirical Study on Ethiopian Private Commercial Banks, *MSc thesis, School of Business and Public Administration, Addis Ababa university.*

Hu, H., & Bikker, J. (2002). Cyclical patterns in profits, provisioning and lending of banks and procyclicality of the new Basel capital requirements. BNL Quarterly Review 221. Pp.143-175.

Hakuduwal, K. (2014). Impact of 1nternal Factors on Profitability of Nepalese Finance Companies. The KIC Journal of Management and Economic Review, 98(3), 88-97.

Heffernan, S. ((1996)). Modern banking in Theory and Practice. England: John Wiley.

http: // www.readyratios.com

Ilhomovich, S.E. (2009). Factors affecting the performance of foreign banks in Malaysia. Malaysia*: A thesis submitted to the fulfillment of the requirements for the degree Master of Science (Banking) College of Business (Finance and Banking.)*

Jah, S., & Hui, X. (2012). A comparison of financial performance of commercial. *African Journal of Business Management, 6(25), 7601-7611.*

Kosmidou, K. (2008). The determinants of Bank's profit in Greece during the period of EU Financial Integration, Managerial Finance (Issue, 34), pp. 146 - 159.

Kumbirai, M., & Webb, R. (2010). „A Financial Ratio Analysis of Commercial Bank Performance in South Africa". *African Review of Economics and Finance, vol.2 (1).*

Khrawish, H. A. (2011). Determinants of Commercial Banks Performance: Evidence from Jordan.International Research. Zarqa University, *Journal of Finance and Economics, Vol. 5(5), pp. 19-45.*

Lamarana, M. (2012). „Financial Performance of the Malaysian Banking Industry" Domestic vs. Foreign Banks, Eastern Mediterranean University.

Marshall, J. (2009). The financial crisis in the US: key events, causes and responses, *Research Paper 09/34, http://www.parliament.uk.*

Madishets P. and Rwechungura W (2013). "Determinants of banks profitability in developing economy: Evidence from Tanzania*." Asian Journal of Research in banking and Finance, Vol.3 (11)*

NBE Directives No.SBB/9/95. (n.d.). National Bank of Ethiopia Licensing and Supervision of Banking Business Proclamation No.84/1994 (1994). *Minimum Capital Requirement for Banks [Online], available at http://www.nbe.gov.et [accessed on December 10, 2011]. NBE, N. B. (2009/10,).*

NBE, "Annual report". Addis Ababa, Ethiopia.

Naceur, S. B., & Goaied, M. (2001): The determinants of commercial bank interest.

Okoth, V, & Gemechu,B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya". *International Journal of Economics and Financial, Issues Vol. 3(1).*

Rashid M (2010). Banking Sector Challenges in Bangladesh. The Daily Star.

Siddiqui, M. A., & Shoaib, A. (2011). Measuring performance through capital structure: Evidence from banking sector of Pakistan. *African Journal of Business Management, Vol. 5(5), pp. 1871-1879.*

Smirlock, M. (1985). Evidence on the None Relationship between Concentration and Profitability in Banking. *Journal of Money, Credit and Banking, Vol. 17(1), pp.69 -83.*

Sufian, F., & Shah, M. (2009). „Determinants of Bank Profitability in a Developing Economy",Emperical Evidence from Bangladesh. *Journal of Business Economics and Management.*

Vong, A. I., & Chan, H. S. (2008). Determinants of Bank Profitability in Macao. *Journal of Economics and Finance, Vol. 7 No 19, pp. 93 - 109.*

Wen, W. (2010). Ownership Structure and Banking Performance: New Evidence in China. *Universitat Autònoma de Barcelona Department D"economia de L"empresa, 2010.*

Zerayehu SE, Kagnew WT, Teshome KA (2013). Competition in Ethiopian banking industry. *African Journal of Economics 1(5):176- 190.*