ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF PROFITABILITY IN ETHIOPIAN YOUNG PRIVATE COMMERCIAL BANKS

BY

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AUGEST, 2020

ADDIS ABABA, ETHIOPIA

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ID. SGS/0595/2010A

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DECLARATION

I, the undersigned, declare that this thesis is my original work and prepared under the guidance of **AbebawKassie (PHD).** All the sources of material used for this thesis have been duly acknowledged. I further confirm that this thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of awarding any degree.

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ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval of a University advisor.

AbebawKassie (PHD) _____

Advisor **Signature & Date**

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LIST OF ACRONYMS

GDP: Gross Domestic Product

NBE: National Bank of Ethiopia

OLS: Ordinary Lease Square

STATA: Software for Statistics

SWIFT: Society for Worldwide Interbank Financial Telecommunication

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ABSTRACT

The purpose of this study is to investigate determinants of profitability of young private commercial banks by using balanced panel data of seven young private commercial banks from year 2011 to 2017. The study used quantitative research approach and secondary data gathered from the banks audited financial statement and NBE. It is also applied panel data regression to investigate the effect of liquidity, operational efficiency, foreign currency generation, bank branch and inflation on major profitability indicator, return on asset (ROA). Different diagnostic tests were tested to know whether the model is valid or not, having the model is valid the regression analysis and hypothesis testing is performed using STATA 13 econometrics software. The findings of the study showed that liquidity, foreign currency generation, bank branch and inflation have statistically significant and positive relationship with Ethiopian young private commercial banks of profitability. On the other hand, operational efficiency has negative and statistically significant relationship with banks' profitability. Among others, the study suggests that Therefore, the management's banks have to use this strategy to become more accessible to the existing and new customers to mobilize large amount of deposit in the prevailing market in so doing to harvest the utmost profit.

Key Words: *Ethiopia, Young Private Banks, Profitability, Internal and External factors*

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Banks are financial institutions that play intermediary role in the economy through channeling financial resources from surplus to deficit economic units. In turn, they facilitate saving and capital formation in the economy. Gangal (2013) explained that commercial banks are financial institutions that collect surplus fund from depositor and provide loan to those who have fund shortage. Uremadu (2002) also justified that access to banking service will not only improve the lives of a society but also consolidating once own country's economic development agenda.

According to Shen et al. (2010) profitability is the ability to make profit from all the business activities of an organization. Also, Hubbard (2002) explained profitability as the efficiency of banks at generating earnings. Similarly, Koller (2011) argued that profitability is the most important and reliable indicator of Bank's competitive position. A sound and profitable banking sector is better able to withstand negative shocks, contribute to the stability of the financial system and economic development of the nation (Athanasoglou et al., 2005).

The performance of commercial banks can be affected by endogenous and exogenous factors. The internal determinants are also sometimes called microeconomic determinants or inherent performances which are specific to each bank and which arethe direct result of the internal decisions of management and board. External determinants, on the other hands, are variables that reflect economic and legal environment which are out of the control of the management of the banks.

Many studies have investigated the bank specific and external determinants of profitability of commercial banks. Some researchers have studied determinants of profitability from several countries perspective such as Athanasoglou et Al. (2006), Flamini et al. (2009) and Goddard et al. (2004). And others are studied in specific countries such as, Ameur et al. (2013), Dietrich and Wanzenried (2011), Guru et al. (1999), Rao&Tekeste(2012),

AmeurandMhiri (2013), Ongore and Gemechu (2013), Alper and Anbar (2011), Athanasoglou, et. al.(2005), Alexiou and Sofoklis (2009), Sufian and Chong (2008). There results were contradictory this is mainly due to continuous change in globalization, deregulation, parallel competition from the non-banking financial institutions and volatile market dynamics, different data they use, different areas coverage and periods.

Regarding the performance of banking system in Ethiopia, the number of banks operating in Ethiopia remained at 18 of which 16 were private and 2 public banks. These Banks have registered a total capital of Birr 93.8 billion, of which private banks accounted for 43.3 percent while public banks putting their combined share at 56.7 percent (NBE, Bulletin-2/V35 2018/19). Despite the growth trend in Ethiopia commercial banks in terms of bank capitals and profits; maintaining sustainable profitability is beyond the wealth maximization of shareholders but also keeping wellbeing of the economy.

1.2. Statement of the Problem

Currently, the Ethiopian government has introduced a Home-grown economic reform as part of a solution to rectify the macroeconomic imbalance the nation has faced for some time. The economic reform rests mainly on three pillars, namely macroeconomic, structural and sect oral reforms of the economy. Hence, stabilizing financial system, strengthening public financial sectors, focusing on key and potential sectors such as agriculture, manufacturing, and mining is very important to ensure viable economic growth (Homegrown economic policy, 2019 and Ezega.com, 2019).

The Homegrown reform agenda has also expected splendid effects on foreign bank presence into Ethiopian banking industry and capital market development which is expected to have significant implications towards local banks performance. The reform also focuses on, banks will be providing loans and advanced foreign currency services to the private sector (Homegrown economic policy, 2019 and Ezega.com, 2019). More importantly, it is expected that at least four private commercial Banks plan to provide conventional banking services are under process to join the Ethiopian Banking industry (Reporter new, 2019).

This shows that the economic reform agenda of Ethiopia plans to bring capacity building actions and opens favorable opportunity for banking sector to become more profitable. On

the contrary, it will creates challenges to the existing commercial banks in terms of competitiveness, market share and profitability and information technology infrastructure. Concurrently, in light of the market share and profitabilitythe joining of new commercial banks into the Ethiopian banking industry will create a potential challenge in their banking performance. Thus, the need to know the determinants of profitability of commercial banks in Ethiopia is the concerned issue on today's Ethiopian economy.

Regarding empirical evidences on determinants of profitability and Ethiopian commercial banks, Belen (2016) and Gemechu; 2016 were examined determinants of private commercial banks profitability by taking both private and public commercial banks consequently the conclusions they were provided not purely reflect for Ethiopian young private commercial banks alone. Study conducted by Abdu (2018), Ermias (2016) and Fesseha (2018) were investigated the determinants of profitability of Ethiopian private banks delimited to bank specific factors. However, Dawit (2017) as well as Moges (2017) were identified internal and external determinates of profitability of Ethiopian private banks.

Other researchers Sori; 2014, Tesfaye; 2014, Samuel; 2015, Yirgalem; 2015 and Turi; 2015) investigated determinants of profitability of Ethiopian commercial banks until the period of 2013 so that they were not revealed the up-to-date scenario. Further, these previous studies indicated in the above still have research gaps in considering variables like foreign currency generation; the most important factor of profitability of Ethiopian young private commercial banks.

Consequently, these studies have research gaps in considering the determinants of profitability in the context of Ethiopian young private commercial bank. This because, most of the empirical studies were delimited on both public commercial banks and very aged established Ethiopian private commercial banks. Despite of many challenges, there is a wide variation of profitability across aged (senior) and young private commercial bank of Ethiopia. Due to this, it is appropriate to do research to identify determinants of profitability reference to Ethiopian young private commercial banks.

Therefore, this study seeks to fill the research gap via contributing empirical evidences by giving full information about the internal and external factor that determine the profitability

of Ethiopian young private commercial banks. Besides, it incorporates foreign currency generation as a determinant of profitability which is not considered in the previous studies.

1.3. Research Questions

The research question of the study includes;

I. What are the bank specific determinants of profitability of Ethiopian young private commercial banks?
II. What is the macroeconomic determinant of profitability Ethiopian young private commercial banks?

1.4. Objectives of the Study

1.4.1. General Objectives

The main purpose of this study is to determine the internal and external factors that influence the profitability of Ethiopian young private commercial Banks.

1.4.2. Specific Objectives

The specific objectives of the study are to achieve the following;

- ✓ To investigate the bank specific determinants of profitability of Ethiopian young private commercial banks
- ✓ To identify the macroeconomic determinant of profitability of Ethiopian young private commercial banks

1.5. Hypothesis Testing

The following hypotheses are developed to break down to answer the above mentioned research questions. These include;

H_1: *There is positive and significant effect of bank liquidity on profitability of Ethiopian young private commercial Banks.*

Bank Liquidity: The liquidity of a bank is measured by the ratio of loan to deposit. This ratio shows the capacity of a bank to meet payments when its depositors and other suppliers of funds require (Adebayo et.al; 2010). The lower ratio of this reveals that the bank will face difficulty in meeting payments in the right time and hence its liquidity low (Financial Management and Analysis of Projects, 2006).

H_2:*There is positive and significant effect of bank branch on profitability of Ethiopian young private commercial Banks.*

Bank branch: the total number of branches of each private commercial bank opened during the review period. As researched by previous scholars adequate levels of branch expansion have positive impacts on both cost and profit efficiencies of banks (Kozo and Kond; 2010).

H_3: *There is positive and significant effect of operational efficiency on profitability of Ethiopian young private commercial Banks.*

Operating efficiency: It is used as an indicator of management's ability to control costs and is expected to have a negative relation with profits, since improved management of these expenses will increase efficiency and therefore raise profits. The expense to income ratio is used as proxy for operating efficiency. The total cost of a bank, excluding interest expense, includes operating cost and other expenses such as depreciation and taxes (Dietricha & Wanzenriedb, 2009 and Guru et al., 2002).

H_4: *There is positive and significant effect of foreign currency generation on profitability of Ethiopian young private commercial Banks.*

Foreign currency generation: itis the foreign currency mobilization capacity of Ethiopian private commercial banks from different sources (Export, SWIFT, Remittance, purchase and sell of currency) and it directly affects the profitability of banks.

H_5: *There is positive and significant effect of inflation rate on profitability of Ethiopian young private commercial Banks.*

Inflation rate: It reflects a situation where the demand for goods and services exceeds their supply in the economy. Studies by Staikouras and Wood (2003) point out that as inflation may have direct effects on the profitability of banks. Perry (1992) also suggests that in the

unanticipated case, banks may be slow in adjusting their interest rates resulting in a faster increase of bank costs than bank revenues and consequently, having negative effects on bank profitability. Thus, the expected sign of the inflation is unpredictable based on prior research.

1.6. Significant of the study

The main reason for this study is to show the bank specific and external determinants of profitability of young private commercial banks in Ethiopia. To this end, the bank managements are informed about the determinant factors profitability there by to take the necessary actions to improve the performance of the company and to give due attention on those determinant factors which have significant impact on Bank's profitability. The economy of the country also stands to benefit from this research because the financial sector is the lung of domestic resources and driver for the achievements of Homegrown Economy. Hence, it gives an insight for the major beneficiaries such as NBE and MOFED to craft polices to monitor the finance structure against the present and future opportunities. Finally, the study becomes a stepping stone to provide useful contributions to the literature on the determinants of profitability of young private commercial banks in Ethiopia.

1.7. Scope and Limitation of the Study

The scope of the study is limited to determinants factors of profitability of young private commercial banks such as bank liquidity, operational efficiency, foreign currency generation, number of branch, and inflation based on secondary data for period covering from 2011 to June30, 2017. The scope of the study is limited to seven young private commercial banks in Ethiopia. In addition, the study used bank sector data and countrywide macroeconomic data that were driven from banks financial statement and National Bank of Ethiopia.

The study used more of financial related variables than that of non-financial measure variables which may have influence and might need a further investigation. Financial reports within seven years may be affected by different non modeled variables in the state of the economy. This might fail to measure the actual effects of the internal and external determinants of profitability of young private banks.

1.8. Organization of the Study

The study is organized as follows; Chapter one discusses the background of the study, statement of the problem, research questions, objectives of the study, significance, and scope of the study. Chapter two provides the theoretical foundation of the study through exploring the arguments of different theoretical perspectives and empirical evidences. The third chapter shows the research design and methodology such as research design, population and sampling, data sources and collection and methods of data analysis. Thereafter, Chapter four focuses on the results of analysis and discusses the findings. Finally, the study portrays the conclusions drawn from the findings and gives relevant recommendations; this is presented in Chapter five.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Theoretical Review

2.1.1. Definition and Concepts of Profitability

The term profitability refers to the ability of the business organization to maintain its profit year after year. Profitability is the relationship of income to balance sheet measure which indicates the relative ability to earn income on assets (Ajao and Solomon, 2012). That means it measures management efficiency in the use of organizational resources in adding value to the business According to Shen et al. (2010) profitability is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise.

It is an indicator of the bank's competitive position in banking markets and of the quality of its management, ensuring the health of the banking system. Profitability is the efficiency of banks at generating earnings which will be measured by profitability ratios and banks, therefore, earn profit by acquiring funds at a cost from severs and lending those funds to borrowers by charging customers for providing various services (Hubbard, 2002). Thus, profit is one of the main reasons for the continued existence of every business organization.

Supporting this, Koller (2011) argued that profitability is the most important and reliable indicator as it gives a broad indicator of the ability of company to raise its income level. A sound and profitable banking sector is better able to withstand negative shocks and contribute to the stability of the financial system (Athanasoglou et al. 2005). Therefore, profitability of the organization will definitely contribute to the economic development of the nation by way of providing additional employment, investment and savings and tax revenue to government exchequer (the fund of a government). Moreover, it will contribute the income of the investors by having a higher dividend and there by improve the standard of living of the people.

2.1.2. Measure of Bank Performance

Though there are three measurement of banking performance, the first two are the most common measure of financial performance of banking sectors.

Return on assets (ROA): it is the major ratio that indicates the profitability of a bank. It is a ratio of net income to its total asset Khrawish (2011). It measures the ability of the bank management to generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company 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).

Return on Equity (ROE): This ratio measures the efficiency of a firm at generating profits from each unit of shareholder equity. Also, it is net assets or assets minus liabilities. It shows how well a company uses investments to generate earnings growth. It is further explained by Khrawish (2011) that ROE is the ratio of net income after taxes divided by total equity capital.

Net Interest Margin (NIM): it is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (deposits), relative to the amount of their (interest-earning) assets. It is a performance metric that examines how successful a bank's investment decisions are compared to its debt situations. A negative value denotes that the firm did not make an optimal decision, because interest expenses were greater than the amount of returns generated by investments.

In addition to this, the major weakness of net interest margin as a measure of profitability is that it focuses only on income related to interest by disregarding other forms of income like fees, commissions and others. In general, the aforementioned measurements fail to show the overall performance of a bank. Therefore, for this specific study, the researcher preferred to use ROA as a measure of bank performance due to the above mentioned reasons.

2.1.3. Theories of Profitability

There are various theories with regard to Liquidity management and profitability among others: Thus, each of the aforementioned theories and others related to bank profitability and its determinants are discussed in detail in this particular section as follows.

Clark Theory of Profitability: Clark begins his theory with an analysis of a profit-less economy and taking into account its key futures. The profit less economy is compared with a profit-generating economy and significant differences were identified to indicate the causes of profit. The profit-less economy is referring to as 'static state', in which all factors are constant and not subject to change, the market is assumed to be perfect. Hence the absence of monopoly and entrepreneurial efforts are rewarded according to management wage levels. There is perfect mobility and flow of all economic units in a frictionless environment; in short all impediments to perfect competition are dissolved (Siddiqi, 1971).

Schumpeter Theory of Profitability: He developed the 'circular flow model' in which a profit-less economy is described where perfect competition extinguishes surpluses of monopoly and friction. The analyses of the 'circular flow' economy differ in detail from the 'static state' model of Clark. So departures between an ideally competitive environment and actual economies yield the causes of profit. Schumpeter, however, is far more selective in his approach than Clark. Schumpeter identifies the single notion of innovation as paramount, so that changes based upon innovation are the cause of profit. He suggested five areas in which innovation will lead to profit generation: Innovations in commodities, Innovations new products, Innovations in production techniques, Innovations marketing opportunities and changes in industrial organization (Siddiqi, 1971).

The Market Power Theories:. There are two distinct approaches within the market power theory; the Structure-Conduct-Performance (SCP) and the Relative Market Power (RMP) hypotheses. According to the SCP approach, the level of concentration in the banking market gives rise to potential market power by banks, which may raise their profitability. Unlike the SCP, the RMP hypothesis posits that bank profitability is influenced by market share. It assumes that only large banks with differentiated products can influence prices and increase profits. They are able to exercise market power and earn non-competitive profits (Tregenna 2009).

The Efficiency Theory: The efficiency hypothesis, on the other hand posits that banks earn high profits because they are more efficient than others. There are also two distinct approaches within the efficiency; the X-efficiency and Scale–efficiency hypothesis. According to the X-efficiency approach, more efficient firms are more profitable because of

their lower costs. Such firms tend to gain larger market shares, which may manifest in higher levels on market concentration, but without any causal relationship from concentration to profitability (Athanasoglou et al. 2006).

The scale approach emphasizes economies of scale rather than differences in management or production technology. Larger firms can obtain lower unit cost and higher profits through economies of scale. This enables large firms to acquire market shares, which may manifest in higher concentration and then profitability (Athanasoglou et al. 2006).

The Balanced Portfolio Theory: The portfolio theory approach is the most relevant and plays an important role in bank performance studies (Nzongang&Atemnkeng 2006). According to the Portfolio balance model of asset diversification, the optimum holding of each asset in a wealth holder's portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return on all assets held in the portfolio, a vector of risks associated with the ownership of each financial assets and the size of the portfolio.

It implies portfolio diversification and the desired portfolio composition of commercial banks are results of decisions taken by the bank management. Further, the ability to obtain maximum profits depends on the feasible set of assets and liabilities determined by the management and the unit costs incurred by the bank for producing each component of assets (Nzongang&Atemnkeng 2006).

2.1.4. Determinants of Commercial Bank's Liquidity

In the banking literature there various bank specific factors and country wide factors that determine the profitability of commercial banks. The following discussion reviews some of the most important determinates of profitability.

2.1.4.1. Macroeconomic Factors

Factors beyond the banking system control: country's economic, social and political factors. Some of macroeconomic factors that can affect bank's liquidity include factors such as GDP growth rate; inflation rate and short term interest rate (Herald and Heiko, 2009).

Real Gross Domestic Product (RGDP): is one of the most commonly used macroeconomic factors that affect liquidity of banks. The trend of GDP affects the demand for banks asset. The study made by Bordo et al. (2001) suggested that during recession, it is likely for an increase in the number of loan default. This causes depositors to perceive high solvency risk and immediately tend to withdraw deposits held at financial institutions. On the contrary, in a growing economy as expressed by positive GDP growth, the demand for credit is high due to the nature of business cycle (Athanasoglou et al., 2005)..

Inflation Rate: Inflation reflects a situation where the demand for goods and services exceeds the supply in the economy. Recent theories emphasize the importance of informational asymmetries in credit markets and demonstrate how increases in the rate of inflation adversely affect credit market frictions with negative consequence for financial sector performance and therefore long-run real activity (Huybens and Smith 1998, 1999). In this respect, the bank's non-performing loans will expand, collateral security values deteriorate and value of loan repayments on banks loans declines. This way, it has been found that inflation rate significantly determines bank liquidity (Heffernan; 2005). Hence, there is positive relationship between increase in inflation rate and banks liquidity.

Foreign Exchange Rate: it is the price of the domestic currency stated in terms of another currency. The proxy for foreign exchange rate was the official exchange rate it refers to the exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the U.S. dollar).

2.1.4.2. Bank Specific Factors

The bank specific factors are factors that are specific to the banking system and discussed in detail here below;

Liquidity Management: it considers the bank's ability to meet its obligations and is very critical for a bank to remain a going concern (Adebayo et.al; 2010). As liquidity has inverse relationship with profitability, and banks must strike a balance between liquidity and profitability (Financial Management and Analysis of Projects, 2006). 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. Therefore, liquidity risk is estimated by the ratio of liquid assets to total asset.

Operational Efficiency: Cost Income Ratio (CIR) reflect bank's operational efficiency and it is defined as non interest costs (operating cost, such as administrative costs, staff salaries and property costs excluding bad debts and doubtful expenses) divided by total of interest income and non-interest income (Dietricha&Wanzenriedb, 2009). CIR used as an indicator of management's ability to control costs and is expected to have a negative relation with profits, since improved management of these expenses will increase efficiency and therefore raise profits (Guru et al., 2002).

Bank branch: the total number of branches of each young private commercial bank opened during the review period. As researched by previous scholars adequate levels of branch expansion have positive impacts on both cost and profit efficiencies of banks (Kozo and Kond; 2010).

Foreign currency generation: it is the foreign currency mobilization capacity of Ethiopian private commercial banks from different sources (Export, SWIFT, Remittance, purchase and sell of currency) and it directly affects the profitability of banks.

2.2. Empirical Studies

Research studies conducted in related to determinants of profitability of Ethiopian commercial banks are reviewed as follows.

Raoand Tekeste (2012) conducted the research on the topic "Determinants of Profitability of Commercial Banks in a Developing Country: Evidence from Ethiopia" employing unbalanced panel data of Ethiopian commercial banks under the period 1999/00 to 2008/09. In the study return on average asset stands for bank profitability indicators, seven internal and three external factors were regressed against ROA of the banks. The finding of the study equity to asset ratio, non-interest income to total income and bank size have positive and significant impact on the profitability, the loan loss reserve to total loans is found to have

negative impact on profitability though it is statistically insignificant, liquidity and operational efficiency are also negatively affect the profitability of the banks. But the external factors (concentration, inflation and GDP) are found to be statistically insignificant.

The paper conducted by Ameur and Mhiri (2013), to identify the explanatory factors of banks' performance on ten Tunisian commercial banks from 1998 to 2011 by incorporate bank-specific, industry-specific and macroeconomic factors. Thus, the findings suggest that the bank capitalization and managerial efficiency have a positive and significant effect on the Tunisian bank performance. However, concentration and bank size have negative and a significant effect on performance. On the other hand, the macroeconomic variables do not have a significant effect on bank performance, except inflation which seems to affect negatively Bank's net interest margin.

Ongore and Gemechu (2013), used linear multiple regression model and generalized least square on panel data to estimate the determinants of financial performance of commercial banks in Kenya. Their finding reveals that specific factors such as capital adequacy, asset quality and management efficiency significantly affect the performance of Kenyan commercial banks, except for liquidity variable. The relationship between bank performance and capital adequacy and management efficiency was found to be positive and for asset quality the relationship was negative. But the overall effect of macroeconomic variables was inconclusive and the role of ownership identity on the financial performance of commercial banks was insignificant. Even if it is found that GDP has negative correlation with performance indicators, the relationship is insignificant.

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. 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.

Sufian and Chong (2008) investigated that influence the profitability of Philippines banking sector by using ROA as a dependent variables during the period 1990–2005. The empirical evidences indicated that all the bank specific determinant variables have a statistically significantly impact on bank profitability. Among them size, credit risk, and overhead expensed are negatively affect the bank profitability, whereas non-interest income and capitalization have a positive impact on it. Concerning the macroeconomic factors, the findings show that except inflation which has a negative impact on bank profitability, GDP, money supply and stock market capitalization have not significantly explained the profitability of Philippines banks.

Guru et al. (2002) investigated the determinants of bank profitability in Malaysia. They used a sample of 17 commercial banks during the 1986 to 1995 period. The profitability determinants were divided into two main categories, namely the internal determinants (liquidity, capital adequacy, and expenses management) and the external determinants (ownership, firm size, and economic conditions). The findings revealed that efficient expenses management was one of the most significant in explaining high bank profitability. Among the macro indicators, high interest ratio was associated with low bank profitability and inflation was found to have a positive effect on bank performance.

Athanasoglou et al. (2008) examined the effect of bank-specific, industry-specific and macroeconomic determinants of bank profitability of Greek commercial banks and covers the period 1985-2001. The findings indicated that capital variable which is peroxide by equity to assets ratio, and productivity growth variable produced a positive and significant relationship with profitability. Next, credit risk and operating expenses management were found to be negatively significant. Lastly, the effect of bank size on profitability was found to be not important. Two industry-specific profitability determinants utilized namely ownership and concentration was found to be insignificant in affecting the profitability. Macroeconomic control variables, such as inflation and cyclical output, clearly affect the performance of the banking sector.

Ramadan et al (2011) investigated 100 observations of 10 banks over the period 2001-2010 by using two measures of bank's profitability: the rate of return on asset (ROA) and the rate of Return on equity (ROE). The research results indicated that the Jordanian bank's

characteristics explain a significant part of the variation in bank profitability. In other words, high profitability in the Jordanian banking sector tends to be associated with well capitalized banks, high lending activities, low credit risk, and the efficiency of cost management. The study also showed that size did not support the significant scale of economies for Jordanian banks.

Olweny and Shipho (2011) tried to conduct to determine the effects of bank specific factors: capital adequacy, Asset quality, operational cost efficiency, and income diversification on the profitability of commercial banks in Kenya. Moreover, they have tried to analyze and evaluated the effects of market structure factors such as foreign ownership and market concentration in the profitability of commercial banks in Kenya. The data was analyzed using multiple linear regression method. Hence, they have found that all the bank specific factors had a statistically significant impact on profitability, while none of the market factors had a significant impact. Their study recommends policies that would encourage revenue diversification, reduce operational costs, minimize credit risk and encourage banks to minimize their liquidity holdings.

Onuonga (2014) studied the profitability of Kenya's Top Six Commercial Banks over the period 2008-2013. She used generalized least squares method to estimate the impact of bank assets, Capital, deposits, loan and assets quality on banks profitability. She also used return on assets (ROA) on her study as a measure of profitability. As it can be noted from the study, bank size, capital strength, ownership, operations expense, and diversification significantly affect profitability of the top six commercial banks. The study has also implied that the commercial banks need to invest in technologies and management skills that minimize costs of operation and since the impact is believed to positively impact the growth and survival of the banks.

Obamuyi (2013) examined the effects of bank capital, bank size, expense management, interest income and the economic condition of on bank's profitability in Nigeria. The fixed effects regression model was employed on a panel data obtained from the financial statements of 20 banks from 2006 to 2012. The results indicated that improved bank capital and interest income, efficient expense management and favorable economic condition, contribute to higher banks' performance and growth in Nigeria.

Abuzar (2013) studied the determinants of profitability of Islamic banks operating in Sudan. This study found that only the internal factors have the substantial impact on the profitability of the commercial banks. Cost, liquidity and the size of the banks have the positive relationship with the bank profitability. Macroeconomic or external factors have no substantial impact on profitability.

Yigremachew (2008) analyzed the determining factors for the corporate profitability of private commercial banks in Ethiopia. The study utilizes data on balance sheet as well as income statement account items of all the domestic private banks, which have at least been operational since 1999/00 fiscal year. In effect six private commercial banks have been included in his survey. All in all, the study results indicate that interest and non-interest income and interest expense are the main determining factor for the profitability of private banks in Ethiopia. It also indicated that fixed asset investment, capital adequacy ratio and employees' productivity has significant role on private bank's profitability where macroeconomic conditions such as inflation and tax have significant unfavorable impact on operational performance of private banks.

Teshale (2011) examined the determinants of Ethiopian commercial banks profitability of six commercial banks for the period of 2003 to 2009. The study used return on assets (ROA) as dependent profitability variable. The major findings of the study show that; size, capitalization, loan, and activity diversification are positively and significantly related to bank's profitability, while credit risk and expense preference behavior have a negative impact. During the period under study, the results suggest that inflation has a negative impact on banks profitability, while concentration affects banks profitability positively in a statistically significant manner. Finally, the impact of GDP per capita growth has not significantly explained the variations in the profitability of the Ethiopian commercial banks.

Damena (2011) applied the balanced panel data of seven Ethiopian commercial banks that covers the period from 2001 to 2010. The paper used Ordinary Least Square (OLS) technique to investigate the impact of capital, size, loan, deposits, non-interest income, non-interest expense, credit risk, market concentration, economic growth, inflation and saving Interest rates on major profitability indicator i.e., return on asset (ROA). The estimation results show that all bank-specific determinants, with the exception of saving deposit,

significantly affect commercial banks profitability in Ethiopia. Market concentration is also a significant determining factor of profitability. Finally, with regard to macroeconomic variables, only economic growth exhibits a significant relationship with banks' profitability.

Abebaw and Kapuer (2011) conducted determinates of commercial banks profitability in Ethiopia. Theyemployed eight commercial banks financial data including government and private banks and random effect regression model were used to investigate the determinants of bank profits concluded that capital strength, expense management, bank intermediation and bank sizes were main determinants of profitability covering the period of 2001-2008..

Belaynesh (2011) examined the impact of bank-specific, industry specific and macroeconomic determinants of Ethiopian commercial banks profitability. The study applied the balanced panel data of seven Ethiopian commercial banks that covers the period 2001- 2010. The paper used capital, size, loan, deposits, noninterest income, noninterest expense, credit risk, market concentration, economic growth, inflation and saving interest rate as independent variable while return on asset (ROA) as major profitability indicator. The estimation results show that all bank-specific determinants, with the exception of saving deposit, significantly affect commercial banks profitability in Ethiopia. Market concentration is also a significant determining factor of profitability. Finally, economic growth exhibits a significant relationship with banks' profitability.

Birhanu (2012) examined the determinants of Ethiopian commercial banks profitability. The study applied the balanced panel data of eight Ethiopian commercial banks that covers the period 2001- 2011. Bank size, expense management and credit risk affect the commercial banks profitability significantly and negatively. Additionally, no evidence is found in support of the presence of market concentration. Finally, from GDP has positive and significant effect on both asset return and interest margin of the bank. But interest rate policy has significant and positive effect only on interest margin

Habtamu (2012) investigated determinants of private commercial banks profitability in Ethiopia by using panel data of seven private commercial banks from year 2002 to 2011. Fixed effect regression model was applied 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. 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.

Tesfaye (2013) carried out to empirically on the determinants of sixteen Ethiopian commercial banks' performance using unbalanced 10 years (2003-2012). The study used three indicators of profitability (ROA, ROE, NIM) and ten explanatory variables: Bank Size, Capital adequacy, Operational efficiency, Liquidity risk, Income Diversification, and Loan to Deposit Ratio from bank specific factors, Bank Concentration and Size Bank, Real GDP Growth rate and Annual Inflation Rate. The empirical result revealed that all bank specific factors except Loan to Deposit Ratio are statistically significant in determining profitability of Ethiopian commercial banks. Among them cost income ratio and liquidity negatively affect bank performance. There are also significant associations between Concentration and Size Bank System with profitability. However, no evidence is found about the relation between macroeconomic factors and performance of banks.

Tekeste and K.Rama(2012) explored the key determinants of profitability of commercial banks operating in Ethiopia using unbalanced panel data set of banks over the period 1999/00-2008/09. To this end, internal and external factors to the banks are regressed against the ROAA of the commercial banks. The internal factors considered are related to the bank's capital structure, liquidity, credit risk, loan portfolio, asset quality, and expense management aspects whereas the external factors are related to the industry and the macroeconomic scenarios within which the banks operate. The result indicates that the most determinants of bank profitability in Ethiopia are the internal factors and external factors are found to be statistically insignificant.

Amdemikael (2012) examined the bank-specific, industry-specific and macro-economic factors affecting bank profitability for a total of eight commercial banks in Ethiopia, covering the period of 2000-2011. 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.

Sori(2014) examined factors affecting profitability of private commercial banks in Ethiopia. The finding of the study show that loan and advance, current deposit, other liabilities and gross domestic product have statistically significant and positive relationship with banks' profitability. On the other hand, variables like fixed deposit, market concentration have a negative and statistically significant relationship with banks' profitability. However, the relationship of deposit with other banks, sum of investment, saving deposit and inflation is found to be statistically insignificant.

Samuel (2015) investigated determinants of commercial banks profitability in Ethiopia by using panel data of eight commercial banks from year 2002 to 2013. . The findings of the study show that bank size, capital adequacy and gross domestic product have statistically significant and positive relationship with bank's profitability. On the other hand, variables like liquidity risk, operational efficiency, funding cost and banking sector development have a negative and statistically significant relationship with banks' profitability. However, the relationship for Management efficiency, employee efficiency, inflation and foreign exchange rate is found to be statistically insignificant.

Yirgalem (2015) investigated determinants of private commercial banks profitability in Ethiopia by using panel data of six private commercial banks from year 2001 to 2013. The findings of the study show that capital adequacy, loan production, deposit fund, income diversification, managerial efficiency and size of the bank have statistically significant and positive relationship with banks' profitability. On the other hand, variables like asset quality and number of branch have a negative and statistically significant relationship with banks' profitability. However, the relationship for bank liquidity and administration cost is found to be statistically insignificant.

The research done by Turi (2015) main objective was to examine the effect of external determinants on Ethiopian commercial banks from the period 1985 -2013. The study used OLS estimation method to measure the effects of external determinants on profitability. Profitability was measured by three indicators: Average Return on Asset, Average Return on

Equity and Net Interest Margin in order to analyze the behavior of each across years. The results showed that real GDP growth found to have a positive effect on profitability of commercial banks of Ethiopia as measured by ROA and Concentration ratio was found to have a negative effect on profitability of commercial banks of Ethiopia as measured by ROA while the Inflation rate, Real interest rate and Exchange rate were insignificant in determining the profitability of commercial banks of Ethiopia.

Ermias (2016) investigated the effects of internal determinants of profitability of six senior private Ethiopian commercial banks over the period 2000-2014 and thereby ranked the overall financial performance of the respective banks based on CAMEL model and fixed effect model. The findings indicated that bank specific factors incorporated in the CAMEL model affect to the extent of 67.5% of the changes in profitability of the private commercial banks in Ethiopia. Moreover, ranking of the respective banks was made based on the aggregate of multi-dimensional parameters of each bank specific proxies found in the CAMEL model. As a result, UNB, NIB, and BOA have held from 1st to 3rd rank based on the CAMEL model composite rating system.

Melaku (2016) investigated determinants of bank profitability in Ethiopian private banks using secondary data. The study used return on assets (ROA) as dependent profitability variable. To analyze the data both descriptive statistics and econometrics model specifically fixed effects estimation were used. The major findings of the study shows 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 have a negative impact on profitability of bank specific drivers.

Tilahun and Chawla (2016) examined determinates of profitability of Ethiopian commercial banks using the panel data collected from eight banks. The study period ranges from 2001 to 2013. Net interest margin (NIM) is used as the only measure of profitability in this study. The empirical findings of the Pooled OLS regression model depicted that number of branches, total loan to total deposit ratio and ownership structure have a positive and statistically significant impact on the profitability of Ethiopian commercial banks. However, the effect of deposit to total asset ratio on NIM is negative and insignificant while size has shown a positive but insignificant effect over profitability of commercial banks.

Gemechu (2016) examined the effect of bank-specific, industry-specific and macroeconomic determinants on banks' profitability in Ethiopia. The study applied balanced panel data of eight Ethiopian commercial banks that covers the period of 2002 - 2012. The findings of the study show that all bank specific determinants except credit risk and expense management have statistically significant and positive relationship with banks' profitability. On the other hand, variables like credit risk, expense management and regulation have a negative and statistically significant relationship with banks' profitability. All macroeconomic determinants in this study like economic growth, interest rate spread and exchange rate have statistically significant and positive relationship with banks' profitability.

Belen (2016) studied determinants of private commercial banks profitability in GTP I. It used panel data from 2011 to 2015 of thirteen private commercial banks. The collected data were analyzed using Eviews-8 software and profitability of banks represented by ROA. The study used 12 explanatory variables namely, bank size, intermediation, expense management, funding cost, credit risk, liquidity, NBE bill purchased, market share, market development, real GDP growth and inflation rate. The study found that, bank size, expense management, NBE bill purchase has a positive significant impact on commercial banks profitability. Furthermore credit risk, funding cost and market share affect commercial banks profitability negatively.

Dawit (2017) identified bank specific and macroeconomic factors that determine the profitability of Ethiopian private commercial banks. Six private commercial banks have been the subject for the study ranging from 2004/2005 to 2014/2015 using panel model. The study used ROA as a dependent variable. The results showed that capital, operational efficiency, income diversification, concentration and money supply have significant relationship with profitability of Ethiopian private commercial banks. However the result shows insignificant relationship between profitability of Ethiopian private commercial banks with liquidity, GDP and inflation.

Moges (2017) analyzed the impact of bank specific and macro-economic factors on the profitability of selected Ethiopian private commercial banks over the period of 2005 to 2014. The panel econometrics result shows that bank size and GDP growth rate has a positive and significant impact on ROA and ROE. While, interest rate spread has a negative

and significant impact. The variable Loan to deposit ratio has negative and significant impact on Banks ROA while, it has no effect on their ROE. Inflation also an important variable in explaining ROA at 10% significant level but, it has no effect on ROE. The other important variable in explaining ROE is loan concentration index it has positive and significant impact on banks ROE. But, it does not significantly explain ROA.

Abdu (2018) investigated the bank specific factors which can affect the financial performance of private commercial banks in Ethiopia. A total of six private commercial banks were purposefully taken and their audited annual financial reports were analyzed for the period of 2011-2017. The results indicated that capital adequacy, management efficiency and size of banks have positive and statistically significant effect on financial performance of private commercial banks of Ethiopia measured by ROA, ROE and NIM. But, liquidity management has negatively significant impact on financial performance of the banks (ROE). Finally, the study also depicted that asset quality was not statistically significant determinant of financial performance of private commercial banks in Ethiopia.

Fesseha (2018) investigated determinants of commercial banks profitability in Ethiopia by using panel data of eight commercial banks from year 2005 to 2016. The findings of the study show that bank size, capital adequacy and gross domestic product have statistically significant and positive relationship with bank's profitability. On the other hand, variables like liquidity risk, operational efficiency, funding cost and banking sector development have a negative and statistically significant relationship with banks' profitability. However, the relationship for management efficiency, employee efficiency, inflation and foreign exchange rate was found to be statistically insignificant.

2.3. Summary and Knowledge Gap

Regarding empirical evidences on determinants of profitability and Ethiopian commercial banks, Belen (2016) and Gemechu; 2016 were examined determinants of private commercial banks profitability by taking both private and public commercial banks consequently the conclusions they were provided not purely reflect for Ethiopian private commercial banks alone.Study conducted by Abdu (2018), Ermias (2016) and Fesseha (2018) were investigated the determinants of profitability of Ethiopian private banks

delimited to bank specific factors. However, Dawit (2017) as well as Moges(2017) were identified internal and external determinates of profitability of Ethiopian private banks.

Other researchers Sori; 2014, Tesfaye; 2014, Samuel; 2015, Yirgalem; 2015 and Turi; 2015) investigated determinants of profitability of Ethiopian commercial banks until the period of 2013 so that they were not revealed the up-to-date scenario. Further, these previous studies indicated in the above still have research gaps in considering variables like foreign currency generation; the most important factor of profitability of Ethiopian private commercial banks.

Consequently, these studies have research gaps in considering the determinants of profitability in the context of Ethiopian young private commercial bank. This because, most of the empirical studies were delimited on both public commercial banks and very aged established Ethiopian private commercial banks. Despite of many challenges, there is a wide variation of profitability across aged (senior) and young private commercial bank of Ethiopia. Due to this, it is appropriate to do research to identify determinates of profitability reference to Ethiopian young private commercial banks

Therefore, this study seeks to fill the research gap via contributing additional empirical evidence on the internal and external factordeterminates of profitability of Ethiopian young private commercial banks. Besides, it incorporates foreign currency generation as a determinant variable, which is not considered in the previous studies.

2.4. Conceptual Framework

The reviewed literatures identified different factors that determine profitability of private commercial banks, broadly classifying them as bank specific factors and macroeconomic factors. Summarizing the results from numerous studies there are some common factors which influence profitability of a bank. These are bank size, asset quality, capital adequacy, RGDP, inflation rate, interest rate liquidity, credit risk, market concentration, expense management, loan and income. Alongside, various measures of profitability such as ROA, ROE and NIM were applied. For the purpose of this studyLiquidity, Operational efficiency, Bank branch, Foreign currency generation and Inflation rate are considered.

The conceptual schema of the relation between the independent variables and dependent variable distilled from the literature review is shown on figure 2.1 below.

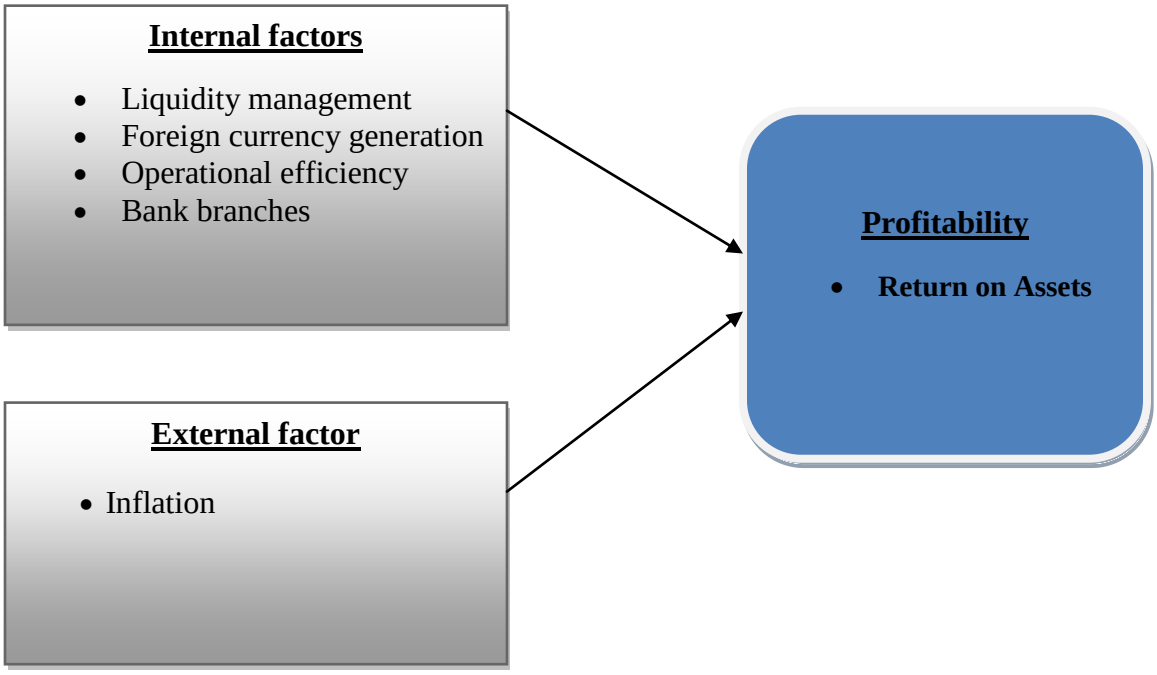


Figure 2.1: Conceptual Framework the Study

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research Design

The main purpose of this study is to investigate determinates of profitability of Ethiopian young private commercial Banks. Therefore, this study applied an explanatory research design because it attempts to investigate the determinants or factors affecting profitability. According to Creswell (2005) an explanatory research design is useful for identifying the type of association, explaining the complex relationships of multiple factors that explain an outcome, and predicting an outcome from one or more predictors. Moreover, Kothari (2004) indicated that an explanatory research is very important to identify the relationships and effect of phenomenon.

3.2. Research Approach

To achieve the aforementioned objective the study is employed quantitative research approach because this research relied on quantitative data and statistical tools to answer the study hypothesis. In line with this, Creswell (2005) confirmed that quantitative analysis is the best approach for developing cause-effect relationship between variables that yield statistical data through running statistical tools. He also explained that quantitative techniques help to check whether the study hypothesized relationships of the variables hold or not.

3.3. Population and Sampling Techniques

3.3.1. Target Population of the Study

Sekaran (2005) explained population is a collection of elements, events or things of interest that the researcher intends to investigate to generalize the result of the research. Accordingly, the target population of this study was young private commercial banks in Ethiopia.

3.3.2. Sample Size

The sample for this study to choosing ten young private commercial banks based on years of establishment after 2005. These Commercial Banks are so called peer Bank group. Additionally, in order to have large observations the researcher excluded very recently established young private commercial banks such as Enat Bank (2013), Debub Global Bank (2012) and Addis international Bank (2011). Accordingly, the seven commercial banks were chosen includes: Oromiya Cooperative Bank, Lion International Bank, Oromia International Bank, Zemen Bank, Bunna International Bank, Abay Bank and BerhanInternational Bank.

Further, in order to have balanced panel data, the researcher used the seven years of data (2011 to 2017) from those young private commercial banks under the study sample frame. Therefore, seven young private commercial banks are selected and it is possible to draw a relationship among variables using 49 observations (7 Bank's x 7 year's data).

3.4. Data Sources and Types

This research is used only secondary sources of data to investigate the determinants of profitability young private Commercial Banks in Ethiopia. The main secondary data of the study were financial statements of the bank and macroeconomic data which are gathered from National Bank of Ethiopia (NBE). Bank specific data are collected from audited financial statements of each selected commercial banks included in the sample. The data collected from 2011to 2017 on annual base and the figures for the variables were on June 30^{th} of each year under study. Besides, the research findings of other researchers in similar topics are used to elaborate the research issues in detailed.

3.5. Methods of Data Analyses

The study is carried out both descriptive and inferential data analysis with the aid of the STATA software. As a part of descriptive analysis, the studyin order to elaborate the research objectives mean, standard deviations, maximum and minimum are used. On the other hand, an econometric tool particularly panel regression model is applied to see the effect of explanatory variables on the dependent variable, profitability. Finally, different regression assumptions are tested to distinguish the applicability of the model.

3.6. Model Specifications

To examine the effect of Bank's specific and macroeconomic factors on profitability of young private commercial banks in Ethiopia, this study is applied panel model. Panel data involves the pooling of observations on the cross sectional over several time periods (Brooks 2008). The panel data comprises of both cross-sectional elements and time-series elements; the cross-sectional element is reflected by the sample of Ethiopian young private commercial banks and the time-series element is reflected in the period of study (2011-2017).

Therefore the general panel equation model which incorporates all of the independent variables and dependent variable is given by:

$$\mathbf{ROAit = \alpha + \beta_1 (LQDLit) + \beta_2 (FCGit) + \beta_3 (BBRit) + \beta_4 (OEit) + \beta_5 (IRit) + \delta i + \varepsilon it}$$

Where ROAit: represents the Bank's profitability of i^{th}bank on year "t"

LQDit: Liquidityofithbank on year "t"

FCGit: Foreign currency generationofithbank on year "t"

BBRit: Number of bank branchesofithbank on year "t"

OEit: Operational efficiency of ithbank on year "t"

IRit: Inflation rate ofithbank on year "t"

δi: denotes fixed effects in bank "i"

εit: is a random error term

3.7. Definition of Variables of Measurements

Accordingly, for this study the conceptual definitions of explanatory variables and dependent variable are described below;

Return on asset (ROA): is the most common measure of the overall financial performance of banks. It is measured by dividing the net income by total assets.

$$\textit{Return on asset (ROA)} = \frac{\textit{Net income}}{\textit{TotalAsset}}$$

Bank Liquidity: This ratio shows the capacity of a bank to meet payments when its depositors and other suppliers of funds require.

$$\textbf{BankLiquidity (BL)} = \frac{\textbf{Total loan}}{\textbf{Total deposit}}$$

Operational efficiency: is defined as the ratio of operating expenses to total income; provides information on variations in operating costs and it used as a proxy to measure the management quality of the bank.

$$\textbf{Operating efficiency} = \frac{\textbf{Operatingexpense}}{\textbf{Totalincome}}$$

Number of branches: It is measured by number of branch of bank

Foreign currency generation: it is the foreign currency mobilization capacity of Ethiopian private commercial banks from sources such as export, SWIFT, remittance, purchase and sell of currency and it directly affects the profitability of banks. Therefore, measured by FCY collection of each private banks on annual base and the figures for the variables were on June 30th of each year under study period.

Inflation Rate: it reflects a situation where the demand for goods and services exceeds their supply in the economy. It is measured by the annual general consumer price index.

3.8. Diagnostic Test of the Model

Before the regression analysis and hypothesis testing basic assumptions such as heteroskedasticity, autocorrelation, multicollinearity and normality are tested to know if the assumptions of CLRM violated or not. Accordingly, the study has applied graphical method ofP-P plot, LM test for normality and autocorrelation test while the problem of heteroskedasticity is controlled in the STATA automatically. Also, the study is undertaken multicollinearityusing VIF test to check whether there is correlation or not among the independent variables.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

In this chapter descriptive statistics of all variables that used in the empirical analysis and result of empirical evidence on the determinants of profitability of Ethiopian young private commercial banks is studied based on panel data, where all the variables are observed for each cross section and each time period. Thus, the results of the study are presented, discussed and interpreted in the subsequent sections.

4.1. Results of Descriptive Statistics

This section depicts the number of the observation based on the data that was being collected and the result of descriptive statistic of the tested variables involved which is return on asset, liquidity, operational efficiency, Bank branch, foreign currency generation and inflation. The data are presented using mean, standard deviation, minimum and maximum value that being run over the entire time period from 2011 to 2017.

Table 4.1: Summary of Descriptive Statistics

Variable	Observation	Mean	SD	Min	Max
Liquidity	49	0.597	0.0899	0.40	0.89
Operational Efficiency	49	0.446	0.1505	0.25	1.22
Number of Branch in log	49	3.693	1.3986	1.00	256
Foreign currency generation	49	4.551	1.0500	0.953	6.145
Inflation	49	14.430	10.6930	7.390	38.04
Return on Asset	49	0.033	0.0114	0.01	0.080

Source: STATA Output, 2020

As the table above depicts, the research used 49 number of observation to empirically examine determinants of profitability of Ethiopian young private commercial banks. ROA which measured profitability in this study has a mean value of 3.3%. Also the profitability is measured using in this study is ROA and it has a mean value of 3.3%. The maximum value of ROA was 0.08 and minimum value was 0.01. That means the most profitable bank among the sampled banks earned 8% of profit after tax for a single birr invested in the assets of the

firm. On the other hand, the least profitable bank of the sampled banks earned 0.01 cents of profit after tax for each birr invested in the assets of the firm.

Samuel (2015) found that for the total sample (96 observations) the mean of ROA was 2.45% with a minimum of 0.3% and a maximum of 4%. Furthermore, Belen (2016) indicated that the most profitable bank included in the sample has been 5.2% return on asset; to the contrary the least profitable bank included in the sample has incurred a loss of 1% as compared to its total asset.

The mean value for liquidity is 0.597, standard deviation value 0.0899, minimum value 0.40 and maximum value 0.89. The implication is that young private commercial banks in Ethiopia use 59.7% of customer deposit on lending. In line with this, Dawit (2017) showed that the ratio of Advance to Deposit was 63.82%, on average, with a minimum of 36.19% and a maximum of 97.65%. Also, Rahel and Maru (2015) confirmed that liquidity variable had that the minimum of 78.96%, maximum of 88.55% and mean of 82.24.

Mean value for operational efficiency is 0.446, SD 0.1505, minimum value 0.25 and maximum value 1.22. The implication is that the relatively higher range between the minimum and maximum value implies that the most efficient bank has a quite substantial cost advantage compared to the least efficient bank. Related to this Samuel (2015) portrayed that there was somewhat a higher variation in the cost-to-income ratio indicated by the range between 200% and 50%. The mean of the cost to income ratio equals 71.4%.

Furthermore, the bank branch has mean value of 3.693. It has also the second highest standard deviation (1.39). In this regard, the maximum number of branch that a given bank has observed data is 256 while the lowest is 1. The implication is that the second most deviated variable from its mean as compared to others and this related with some banks has by far large number of branch as compared to other branch.

Inflation has a mean value of 14.43;it is ranging between 7.39 of minimum and 38.04 of maximum value with high standard deviation of 10.693. The implication is that inflation rate in Ethiopia during the study period remains somewhat unstable. In this regard, Moges (2017) indicted inflation has mean of 17.24% with maximum 6.4% and minimum of 2.8%.

Moreover, Dawit (2017) showed on average inflation has 16.2% with a minimum of 2.8% and a maximum of 36.4.

Finally, the last variable employed in this study foreign currency generation, had mean value is 4.55, SD 1.05, minimum value 0.953 and maximum value of 6.145. The implication is that the foreign currency in Ethiopia during the study period is the third to remains highly unstable than other variables.

4.2. Choosing Panel Model Regressions

The term "panel data" refers to the pooling of observations on a cross-section of households, countries, firms over several time periods. Hence, this particular study has one dependent variables i.e. ROA. To choose fixed or random effect of panel model the study used Hausman test approach as revealed below.

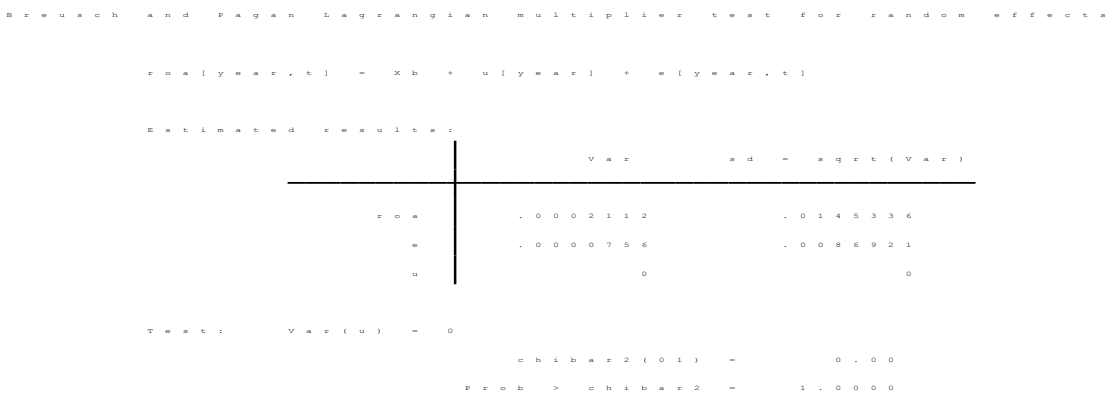
Table 4.2: Hausman test statistics

$chi^2(4)$	**0.03**
$Prob>chi^2$	**0.9999**

Source: STATA Output, 2020

The test accepts the null hypothesis indicating that random effects model is preferred than the fixed effects because the P-value 0.999 is greater than 5% critical point.

Table 4.3: LM test statistics



Moreover, to decide random effects or OLS the researcher run LM test where the null hypothesis preference to OLS model while the alternative hypothesized that difference in coefficients are random. As it is indicated in the above table the test accept the null hypothesis at P-value 1.000; indicating favored to OLS model.

4.3. Assumption of Regression Analysis

Before presenting the estimation results of the regression analysis, the model was diagnosed for problems of normal distribution, hetroscedasticity, autocorrelation and multicollinearity by applying the relevant techniques discussed in the subsequent section.

4.3.1. Normality Test

The normal P-P plot indicates that the residuals are normally distributed. Normality test is detected using normal P-P plot. The plot shows that the points generally follow the normal (diagonal) line with no strong deviation.

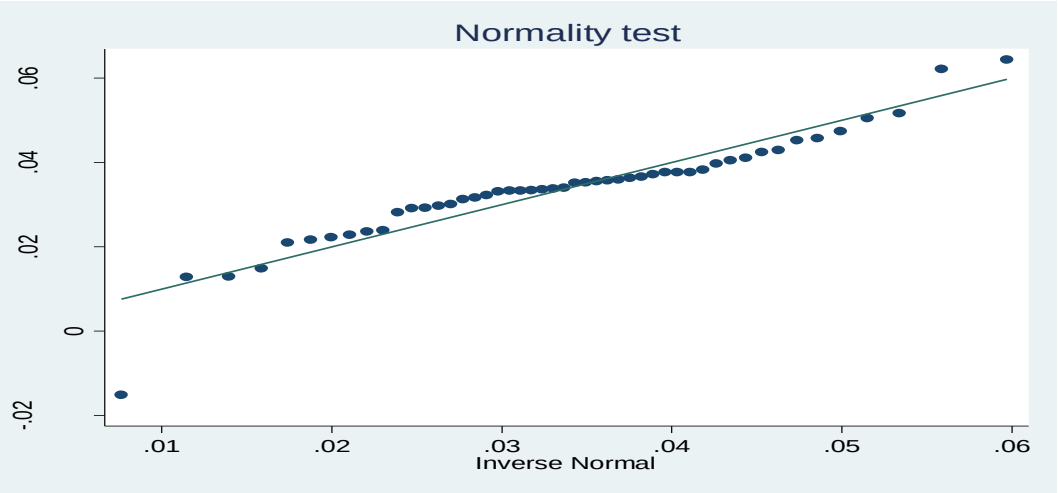


Figure 4.1: Normality Test

4.3.2. Test of Multicollinearity

The test of multicollinearity problems of explanatory variables of young private commercial banks in Ethiopia is made using VIF. As explained by Gujarati (2004), if the value of VIF is above 10, it indicates existence of multicollinearity. As table 4.3 shows, since the variance inflation factor is below 10, multicollinearity problem does not exist. Therefore, the model is free from multicollinearityproble

Table 4.4: Multicollinearity statistics

Variable	VIF
Operational Efficiency	0.277949
Loan to Deposit Ratio	0.391604
Inflation	0.038264
Number of Branch in log	0.019673
Foreign currency generation	0.086919

Source: STATA Output, 2020

Accordingly, this research model passes the entire assumptions of OLS and interpreting the results is become valid and correct.

4.3.3. Homoscedasticity

Homoscedasticity describes a situation in which the error term or random disturbance is the same across all values of the independent variables and this would result an efficient and stable regression model. To avoid heteroskedasticity problem the researcher applied robust standard error estimation automatically in STATA because it controls the effect of heteroskedasticity automatically.

4.3.4. Autocorrelation

It is a characteristic of data which shows the degree of similarity between the values of the same variables over successive time intervals. Wooldridge test for autocorrelation in panel data indicating that the p value is greater than 5% significant level. Therefore, the study accepts the null hypothesis of there is no first order auto-correlation problem.

Table 4.5: Wooldridge test for autocorrelation

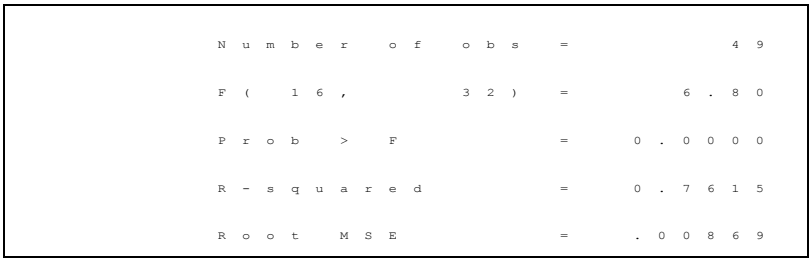
```
Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
       F(  1,     6) =    1.669
            Prob > F =    0.2439
```

4.4. Multiple Regression Results

4.4.1. Model Fit and ANOVA

In order to evaluate the overall significance of the model, as depicted below, the mode fit R square was addressed to evaluate whether the formulated model can fit in explain the variation of profitability (ROA) of young private commercial banks of Ethiopia.

Table 4.6: Model Summary and ANOVA



Number of obs	=	49
F(16, 32)	=	6.80
Prob > F	=	0.0000
R-squared	=	0.7615
Root MSE	=	.00869

Adjusted R-Square =0.7274

Source: STATA Output, 2020

The estimation results reported in Table 4.5 depicted that, the adjusted R-square values of 0.73 which indicates the model is a good fit. From this it is concluded that 73% of the variation in the dependent variable (ROA) of young private commercial banks is explained by the independent variables (liquidity, operational efficiency, Bank branch, foreign currency generation and inflation). However, the remaining 27% of variations in return on asset of the bank are caused by other factors that were not included in the model.

As it was portrayed on table 4.5 above, the value of F-statistics is 6.80 and it is significant as the level of significance is less than 5%. This means that all the independent variables jointly predict dependent variable, which is the profitability (ROA) of Ethiopian commercial young private banks.

4.5. Regression Coefficients Results

This paper estimated the model that specified in the model specification using OLS estimation technique to examine significant determinant of profitability of Ethiopian young private commercial banks, the coefficients of the explanatory variable and how much ROA changes as a change of these determinant factors: liquidity, operational efficiency, Bank

branch, foreign currency generation and inflation. In addition to the explanatory variables, this paper has controlled cross section unit difference and the dependent variable variation due to time variation by including cross section and year dummy respectively.

Table 4.5: Coefficients of Regression Results

ROA*	Coef.	Robust Std. Err.	P> /t/
Liquidity	0.048044	0.02361	0.0500
Operational Efficiency	-0.04255	0.014739	0.007
Ln Bank branch	0.015312	0.006075	0.017
Foreign currency generation	0.007751	0.003163	0.020
Inflation	0.001946	0.000598	0.003
Constant	-0.107	0.048	0.001
Cross section Dummy	Yes		
Year dummy	Yes		

*Dependent variable

Source: STATA Output, 2020

Liquidity: It is explained by the ratio of total loans to deposit. As hypothesized, it has positive and significant effect on ROA at 5% significance level. The coefficient for the variable is 0.048 and its p value is 0.05. That means, holding other independent variables constant, when liquidity management increases by one percent, return on asset of Banks increases by 4.8 percent. The result is consistent with the findings of Tekeste and K.Rama (2012), Abuzar (2013), and Melaku (2016). The possible reason for the positive association between liquidity and ROA could be attributed to the fact that, Banks have more liquid asset which bring additional competitive advantage by maintaining different potential customer who has consistence financing need and granting loan to them enables the banks can earn substantial amount of interest income that create favorable condition to maximize the profit and shareholder equity.

Operational efficiency: As it depicted in the table 4.5, the coefficient of operational expense which is measured by the ratio of operating expenses to total income was negative and statistically significant at 5% significance level (p value=0.007) and the coefficient is 0.0425. Thus, if the managements of the bank increase the operational expense by one percent then the profitability (ROA) of the Banks will reduce by 4.25 percent.

Further, the result is also consistent with previous studies of Dawit (2017), Fesseha (2018), Athanasoglouet al. (2008), and Amdemichale (2012). The findings of the these researchers disclosed that operational efficiency is statistically significant and negatively determined commercial banks profitability in Ethiopia

Bank Branch: The impact of branch expansion on bank profitability has showed positive parameter and significant at 5% level of significance. The coefficient for the variable is 0.015 with p value of 0.017. This positive sign suggest that banks with more branches are more profit efficient than those with lower number of branch.Holding other independent variables at constant, when branch expansion increased by 1 percent then profitability of young private Banks also improved by 1.5 percent. This finding is consistent with previous research works of (Tilahun and Chawla; 2016). Moreover, as researched by Kozo and Kond (2010) disclosed that adequate levels of branch expansion have positive impacts on both cost and profit efficiencies of bank.

The possible reason is that branch expansion provides an opportunity for more private banks to enter into the market and reach the remote and unbanked areas. This will attract more potential customers as well as increase future market by providing inexpensive and accessible financing. In doing so private commercial banks can harvest the utmost profitin the prevailing market.Therefore, the null hypothesis, branch networking is negatively and significantly determines profitability of Ethiopian commercial private banks is rejected.

Foreign currency generation: the finding of the study revealed that foreign currency generation capacity of Ethiopian commercial private bank has a positive effect on profitability performance. At 5% level of significance point, the coefficient for foreign currency generation and p value is 0.007 and 0.020 respectively. Holding other independent variables constant, when foreign currency generation is increased by one USD, return on

asset of Banks would increase by USD 0.007. The implication is that, the best performing Banks in terms of profit are those which have generated a high level of foreign currency relative to others.

The possible reason is that banks which mobilize more foreign demands of the customers and reduce stiffcompetition among local banks for deposits, thereby they can generate profits. Therefore, the relationship between foreign currency generation and ROA of Ethiopian commercial young private banks is concedes with this research expectations.

Inflation: The finding suggested that inflation is a determinant of profitability Ethiopian young private commercial banks because this variable is significant the lowest p-values of 0.003 of at 5%. The coefficient of inflation is 0.00194. This entails that holding other things at constant one percentage increase in inflation will have a 0.194 percent increase in profitability (ROA) of the bank. In terms of inflation impact on ROA, previous studies such as Athanasoglou et al. (2008), Guru et al. (2002) and Moges (2017) showed a positive impact on profitability. The positive relationship is due to anticipated inflation where in this case, the interest rates are adjusted accordingly, resulting in revenues to increase faster than costs and subsequently, having positive impact on bank profitability

Accordingly, from the above data analysis, profitability of Ethiopian commercial young private banks were determined by bank-specific (internal) and external one. That means except operational expense all the bank-specific factors included in this study were positive significant determinants of Ethiopian private commercial banks profitability. Likewise, the external variable, inflation was positively and significantly determine the profitability of Ethiopian young private commercial banks. Likewise the external variable inflation was positively and significantly determines the profitability of Ethiopian private commercial banks.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter consists of three sections which include summary of the findings, conclusion and recommendations.

5.1. Summary of Research Findings

The main objective of the study was to investigate determinants of profitability of Ethiopian private commercial bank. In doing so, this study expressed the profitability (ROA) of Ethiopian young private commercial banks as a function of internal and external determinants. The bank specific determinants that were used in this study include variables such as liquidity, operational efficiency, Bank branch and foreign currency generation while only one macroeconomic condition indicator variable inflation was considered. For testing the research hypotheses, a sample size of seven Ethiopian commercial banks were selected and the necessary quantitative data were mainly obtained from Bank's audited financial report and NBE spanning from 2011 to 2017. As a result of the analysis and interpretation the following are the summary of the findings.

- Liquidity has a positive and significant effect on profitability of Ethiopian young private commercial banks.
- Bank branch has a statistically significant and positive effect on profitability of Ethiopian young private commercial banks.
- Foreign currency generation has a significantly positive determinant factor of profitability of Ethiopian young private commercial banks.
- Inflation has a statistically significant and positive effect on profitability of Ethiopian young private commercial banks.
- Operational efficiency has a statistically significant and negative effect on profitability of Ethiopian young private commercial banks at 5% level of significance.

5.2. Conclusions

The empirical findings on the determinants of profitability of Ethiopian young private commercial banks for the sample suggest the following conclusions.

First, bank branch has a positive impact on ROA of Ethiopian private commercial bank with significance coefficient. This positive relationship is suggesting that when number of Ethiopian young private commercial bank branches expand, there earning in terms of profit (ROA) would be higher. From this result the researcher concludes the banks are gaining from branch expansion and hence branch expansion strategy is successful in determining profitability of Ethiopian young private commercial bank.

Second, as expected the liquidity has a positive effect on ROA with highest coefficient at 5% significant level. This indicates that as banks that hold more liquid asset experience more significant increase the profitability and shareholder equity by upholding different potential customers who have consistence financing need and granting loan to them enables the Banks can earn sizeable interest income that create favorable condition to maximize the profit and shareholder equity.

Third, the relationship between foreign currency generation and ROA of Ethiopian commercial young private banks is concedes with this research expectations because it has a positive coefficient and statistically significant at 5% critical value. This indicates that the best performing Banks in terms of profit are those which have generated a high level of foreign currency relative to others.

Fourth, again as expected, the result showed a negative relationship between operational efficiency and profitability with higher coefficient value and strong statistical significance. This shows that as minimizing operating costs would certainly improve Ethiopian youngprivate commercial banks performance. Lastly, the inflation also has statistically significant and positive relationship with profitability (ROA) of Ethiopian young private commercial bank.

Overall, based on the findings the study concludes that the management of private commercial banks should strive to improve the performance of the banks by giving more

attention to the variables identified to have significant impact on the profitability performance of the bank.

5.3. Recommendation

- Besides, the liquidity of young private commercial banks should be managed wisely by continuously review the strategy, policies and practices to articulate a liquidity risk tolerance appropriate for its business operation and identifying alternate sources of funding that strengthen its capacity to withstand a variety of liquidity shocks and maintaining high quality liquid assets. In this case young private commercial banks can obtain an optimal amount of liquid assets to avoid mismatch between profitability and risk of short term insolvency.

- Operational efficiency is the second highest negative influence of profitability of young private commercial banks and hence the managements of private banks should also give more consideration to minimize operating expenses by deploying efficient and effective resources utilization mechanisms such as reducing their salary and rent expense and by upgrading and using the latest technology versions which operational that reduce costs of operations in order to enhance their performance

- Private commercial banks should also give attention for branch expansion as it is positively and significantly affecting profitability. Therefore, the management's banks have to use this strategy to become more accessible to the existing and new customers to mobilize large amount of deposit in the prevailing market in so doing to harvest the utmost profit. However, due emphasizes is required for detail feasibility study in opening of branches in different regions including Addis Ababa city.

- The finding indicates that inflation positive and significant with profitability of Ethiopian private commercial banks. This was an anticipated type. Thus, managements of private banks shall be proactive to any economic shocks like inflation to increase their revenues at a faster rate than bank costs by timely adjusting interest rates.

- Finally, the researcher would like to recommend future researchers to include the impact of non-financial determining factors of banks profitability. Moreover, many

studies were regress only by taking a single dependent variable: ROA, ROE or NIM and many independent variables. Future researchers will conduct study in profitability issues by considering the three profitability performance indicators at as a single dependent variable using MANCOVA model rather than regressing the indicators one by one

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APPENDICES

Appendix VI: Data for Regression

Cross	Year	OE	ROA	Liquidity	inflation	lnbranch	lnfcg
Abay Bank	2011	1.22	-0.01	0.60	38.04	2.20	0.95
Abay Bank	2012	0.51	0.03	0.58	20.81	3.26	1.91
Abay Bank	2013	0.53	0.03	0.57	7.39	3.87	2.17
Abay Bank	2014	0.53	0.02	0.59	8.46	4.26	3.62
Abay Bank	2015	0.45	0.04	0.64	10.45	4.48	4.27
Abay Bank	2016	0.46	0.03	0.64	7.50	4.70	4.39
Abay Bank	2017	0.45	0.03	0.62	8.36	4.97	4.81
Brhan bank	2011	0.35	0.03	0.48	38.04	2.20	3.19
Brhan bank	2012	0.32	0.04	0.54	20.81	2.71	3.71
Brhan bank	2013	0.35	0.02	0.61	7.39	3.09	4.06
Brhan bank	2014	0.46	0.03	0.59	8.46	3.81	4.15
Brhan bank	2015	0.43	0.03	0.61	10.45	4.28	4.24
Brhan bank	2016	0.38	0.05	0.70	7.50	4.65	4.87
Brhan bank	2017	0.40	0.04	0.69	8.36	5.08	4.83
Buna bank	2011	0.46	0.03	0.75	38.04	2.40	3.22
Buna bank	2012	0.43	0.03	0.72	20.81	3.04	3.50
Buna bank	2013	0.38	0.03	0.61	7.39	3.50	3.78
Buna bank	2014	0.45	0.04	0.62	8.46	4.09	3.97
Buna bank	2015	0.44	0.04	0.69	10.45	4.38	4.38
Buna bank	2016	0.42	0.04	0.67	7.50	4.62	4.59
Buna bank	2017	0.44	0.03	0.70	8.36	4.93	4.59
CBO	2011	0.42	0.03	0.40	38.04	3.81	4.98
CBO	2012	0.35	0.04	0.49	20.81	3.97	5.50
CBO	2013	0.35	0.04	0.47	7.39	4.36	5.72
CBO	2014	0.35	0.06	0.67	8.46	4.66	6.15
CBO	2015	0.50	0.04	0.89	10.45	4.95	5.84
CBO	2016	0.75	0.00	0.70	7.50	5.16	5.58
CBO	2017	0.59	0.01	0.68	8.36	5.55	5.24

Cross	Year	OE	ROA	Liquidity	inflation	lnbranch	lnfcg
Lion bank	2011	0.37	0.03	0.52	38.04	2.56	4.04
Lion bank	2012	0.34	0.04	0.56	20.81	3.50	4.11
Lion bank	2013	0.30	0.05	0.63	7.39	3.95	4.17
Lion bank	2014	0.41	0.04	0.57	8.46	4.09	4.23
Lion bank	2015	0.48	0.04	0.64	10.45	4.49	5.11
Lion bank	2016	0.49	0.04	0.68	7.50	4.79	5.24
Lion bank	2017	0.43	0.03	0.63	8.36	5.01	4.63
OIB	2011	0.70	0.03	0.43	38.04	3.58	4.13
OIB	2012	0.57	0.02	0.48	20.81	3.81	4.56
OIB	2013	0.54	0.02	0.53	7.39	4.17	4.76
OIB	2014	0.43	0.03	0.51	8.46	4.66	5.09
OIB	2015	0.45	0.02	0.65	10.45	5.02	5.42
OIB	2016	0.45	0.02	0.55	7.50	5.30	5.41
OIB	2017	0.53	0.02	0.53	8.36	5.41	5.39
Zemen bank	2011	0.25	0.08	0.56	38.04	0.00	4.98
Zemen bank	2012	0.29	0.05	0.56	20.81	0.00	5.20
Zemen bank	2013	0.45	0.04	0.55	7.39	0.00	5.58
Zemen bank	2014	0.26	0.06	0.47	8.46	1.79	5.66
Zemen bank	2015	0.33	0.04	0.56	10.45	2.08	5.46
Zemen bank	2016	0.32	0.04	0.59	7.50	1.61	5.71
Zemen bank	2017	0.33	0.04	0.54	8.36	2.20	5.89