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DETERMINANTS OF BANKS' PROFITABILITY IN ETHIOPIA: THE CASE OF COMMERCIAL BANK OF ETHIOPIA OPERATING IN SOUTH ADDIS ABABA, ETHIOPIA

Kanbiro Orkaido Deyganto* **Dr.T.Hymavathi Kumari****
**Lecturer and Researcher, School Postgraduate Studies, Pharma College, Hawassa Campus, Hawassa, Ethiopia.*
***Associate Professor, Department of Accounting and Finance, Dilla University, Dilla, Ethiopia.*

Abstract
*The objective of this study was to analyze determinants of banks' profitability of commercial bank of Ethiopia in south Addis Ababa district over the period of 2014-2018. To achieve the objective of the study, the researcher employed mixed research approach and adopted explanatory research design to examine the cause and effect relationship of profitability and its determinants. The 12 branches having 5 year audited financial reports (12*5=60 financial statements)were selected as sample using purposive sampling method. Secondary data were collected by reviwing financial statements and analyzed using multiple linear regression models to examine the determinants of the profitability using E-views 8. The primary data was collected through interview with branch managers. Out of five factors incorporated in the model, variables such as management efficiency has (positive), capital adequacy has (positive) and liquidity management of the bank has (negative) and statistically significant influence on profitability of the CBE branches in south Addis Ababa. Whereas, other two factors including debt to equity ratio and bank size has no impact profitability position of the bank. Based on findings of the study, the researchers forwarded possible recommendations that enable the branches to improve management efficiency and capital adequacy more than current status and reduce the liquidity position to optimum since it has negative impact on profitability of the branches.*

Keywords: Commercial Bank of Ethiopia, Profitability, Determinants, Multiple linear Regression Models

1. An Overview of Banking History in Ethiopia

The history of banking in Ethiopia dates back to the turn of 20th century. The agreement that was reached in 1905 between Emperor Minilik II representative of the British owned National Bank of Egypt marked the introduction of modern banking in Ethiopia. Following the agreement, the first bank called Bank of Abysinia was inaugurated in February16, 1906 in Addis Ababa, by the Emperor. Recently, banking services in Ethiopia has showed rapid boom as the economy of the country growing fastly. The current development bank of Ethiopia was established by government of Ethiopia in 1909 following bank of Abyssinia. After state bank of Ethiopia had spilt in to national bank and commercial bank of Ethiopia in 1963, there are about sixteen commerical banks opened in Ethiopia. These are Awash international bank in 1994, bank of Abynissina in 1996, Wegagen bank in 1997, united bank in 1998, Nib international bank in 1999, Dashen in 2003, cooperative bank of Ormomia in 2005, lion international bank in 2006, Ormomia international bank in 2008, Buna international bank in 2009, Zemen Bank in 2009, Abay bank 2010, Berhan bank in 2010, Addis international bank in 2011, Debub Gelobal bank in 2012 and Enat bank in 2013 respectively.

Banking sector is the back bone of any economy and plays an important role in the economic development of a country. Mobilization of the national savings to the productive sectors is possible only with the help of commercial banks that increases the economic growth rate of a country. Profitable commercial banks also stabilize the financial system of a country.

2. Problematizing the Issue

Even if modern banking in Ethiopia introduced was in 1905. The financial system of Ethiopia is very under developed. There is no stock exchange and of the eleven banks that exist. There is a centralized bank called National bank of Ethiopia, three are state owned banks dominate the sector. There are no foreign banks in the country, and the system remains isolated from the effects of globalization while policy-makers fear that liberalization will lead to loss of control over the economy. The government controls interest rates and sets them below the high inflation rate. Corruption, though strictly sanctioned, remains a concern. The National Bank of

Ethiopia is the country's central bank..The banking sector these days has gone less secure, and hence, the studies devoted to profitability of commercial banks assume a greater significance. Efficient composition of assets and liabilities of commercial banks is crucial for their sound financial performance. Internal factors or management factors include the management policies, capital ratios, risk management, efficiency of banking services to customers like money transfer, assets, equity loan facilities, deposit services etc. The Ethiopian financial sector reform was aimed at improving profitability, efficiency and productivity, by adopting a strategy of gradualism, but Ethiopian banks' performance has still remained poor with substantial gaps in service delivery to private agents, particularly to the rural and lower income population.

3. Objectives of the Study

General Objective

The general objective of the study is to identify the determinants of financial performance of Commercial Bank of Ethiopian operating in South Addis District.

Specific Objectives

1. To identify the effect of management efficiency on financial performance CBEs in South Addis District.
2. To examine the effect of capital adequacy on ROA of CBEs in South Addis District.
3. To examine the effect of gearing ratio on financial performance of CBEs in South Addis District
4. To identify the effect of liquidity management on financial performance of CBEs in South Addis District.
5. To assess the effect of firm size on the financial performance of CBEs in South Addis District.

4. Research Hypothesis

Research hypothesis is tentative statements that relate the independent variables to the dependent variable. Thus, based on the reviewed literatures and theories, the researcher has been developed and tested the following null hypothesis to address the objectives of this study.

H0 (1): There is no significant positive relationship between Management efficiency (MER) and financial performance of of CBEs in South Addis District.
H0 (2): Capital adequacy ratio (CAR) has no and statistically significant impact on the financial performance of CBEs in SAAD.
H0 (3): There is no positive and statistically significant between the Debt ratio and financial performances (ROA) of CBEs in South Addis District..
H0 (4): There is no negative and statistically significant relationship between liquidity management has the financial performance of CBEs in South Addis District.
H0 (5): Size of CBEs (SBR) has no positive and statistically significant impact on the financial performance (ROA) of CBEs in South Addis District.

5. Theories of bank profitability

Studies on the performance of banks started in the late 1970s/early 1980s with the application of two industrial organizations models: the Market Power and Efficiency Structure theories (Athanasoglou et al. 2006). The balanced portfolio theory has also added greater insight into the study of bank profitability (Nzongang & Atemnkeng 2006). 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:

a) The market power theories

As noted in Tregena (2009) applied in banking, the market power hypothesis posits that the performance of bank is influenced by the market structure of the industry. There are two distinct approaches within the market power theory; the Structure-Conduct-Performance and the Relative Market Power hypotheses. According to the first approach, the level of concentration in the banking market gives rise to potential market power by banks, which may raise their profitability. Banks in more concentrated markets are most likely to make „abnormal profits ‟ by their ability to lower deposits rates and to charge higher loan rates as a results of collusive (explicit or tacit) or

monopolistic reasons, than firms operating in less concentrated markets, irrespective of their efficiency (Tregenna 2009). Unlike the Structure-Conduct-Performance, 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 noncompetitive profits (Tregenna, 2009).

b) **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 16 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. (Athanasoglou et al., 2006) 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.

c) **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).

6. Empirical Review on Determinants of Profitability

I. Management Efficiency Ratio (MER)

Management efficiency is one of the key internal factors that determine the CBEs financial performance. It is represented by different financial ratio like total asset growth; Loan growth and earnings growth rate. Yet, it is one of the complexes subject to capture with financial ratios. Moreover, operational efficiency in managing the operating expense is another dimension for management quality. Management can be defined as a set of activities directed at the efficient and effective utilization of resources in pursuit of one or more objectives. The resources are usually people, machines, materials, time and managerial know-how. (Mudibo, 2005), raised concern on the competence of leaders who run CBEs. Since they are voluntary organizations, members can elect anybody they like, who may not necessarily have the skills to run a CBE. To address this, he further pointed out that CBE members are required through their by-laws to provide for minimum qualifications for their managers. The performance of management is often expressed qualitatively though subjective evaluation of management system, organizational discipline, control system, quality of staff, and others. Yet, some financial ratio of the financial statement acts as a proxy for management efficiency. The capability of the management do deploy its resources efficiently, income maximization, reducing operating cost can be measured by financial ratios. The shareholders ensure that only reliable persons with competence are elected or appointed as directors. They can also change the composition of the board. With increased competition, efficiency and effectiveness have become the rule as firms constantly strive to improve their performance. Abebech (2018) have conducted the research on determinants of profitability of cooperative societies in Hawassa city Administration and found out that management efficiency has positive and significant impact on profitability of saving cooperative society.

Indranarain(2009), stated that higher the management efficiency level of a firm, higher its profits level. Hence, a positive relationship is expected between management efficiency and profitability of banks. The analysis of the quality of a management is based on the experience of the management and their record of accomplishment in terms of their vision and competence in running the bank. The analysis of the management also factors in their

integrity and the overall corporate governance standards in the bank. (Molyneux, 1992), used operating expense to operating income and stated that higher the efficiency level of management, higher firms profit level. Hence a positive relationship is expected between efficiency and financial performance.

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. The ratios of operating expenses to operating income and operating expenses to total assets are commonly used to measure managerial efficiency of the banks.(Indranarain, 2009) and (Molyneux, 1992) used operating expense to operating income and stated that higher the efficiency level of a bank, higher its profits level.

II. Capital Adequacy Ration (CAR)

Capital is one of the specific factors that influence the level of financial performance. Financial institutions capital creates liquidity due to the fact that deposits are most fragile and prone to runs. Moreover, greater capital reduces the chance of distress. However, it is not without drawbacks that it induces weak demand for liability, the cheapest sources of fund is the level of capital required by the firms 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 debtors. Large size of equity is expected to reduce the bank risk and increases a bank's credit worthiness in reducing its funding cost for a bank with higher equity to assets ratios will normally have a lower need of external funding. However, lower capital ratios in banking imply higher leverage and risk, which therefore lead to greater borrowing costs. Amdemikael, (2012) and Abebech (2018) have found capital adequacy in his study like this: The coefficient of capital strength which is measured by the equity to asset ratio was positive and statistically significant at One percent significance level. The positive coefficient for capital strength was in favor of the signaling or bankruptcy costs hypotheses and in opposite to the risk-return trade-off hypothesis. Moreover, the coefficient of the ratio of equity to asset, which was relatively higher as compared to other variables, shows that an increase in capital strength result in increased profitability.

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.

III. Debt to Equity ratio (DER)

The debt to equity ratio is calculated by dividing total liability by total equity. Total debt includes everything the shareholders owns, including deposits, borrowings, account payable and other liability accounts. The debt to equity ratio is a common measure used to assess a firm's leverage, or in other words the extent to which it relies on debt as a source of financing Lislevand, (2012). Studies from microfinance institutions indicate that, Microfinance institutions that employ higher debt in their capital structure and highly leveraged MFI's are more profitable. Besides, a higher debt ratio can enhance the rate of return on equity capital during good economic time. Muriu, (2011) concluded that, the significant correlation between performance and gearing ratio is an indication that perhaps more debt relative to equity is used to finance microfinance activities and that long term borrowings impact positively on profitability by accelerating MFIs growth than it would have been without debt financing. Besides, Abebech (2018) found out that debt to equity ratio has positive and statistically significant relationship with profitability of SACCOs measured by return on asset. Dissanayake, (2012) And Melkamu, (2012); found that debt to equity as statistically insignificant predictor variable. Besides, the direction of the coefficient of the variable was not as per the predicted direction of the researchers. According to Kawiche, (2012) the findings of the study show a negative correlation between the financial Performance and the debt ratio because there is high amount of liabilities which drained down the amount of net income of the MFIs.

IV. Liquidity Management of the bank (LBR)

Liquidity is another factor that determines the level of banks performance. Liquidity refers to the ability of the bank fulfill its obligations, mainly of deposit. According to Daneiel and Tilahun (2013) there is a strong and positive relation between liquidity and profitability, firms with more liquid assets are less likely to fail because they can realize cash even in very difficult situations. It is therefore expected that firms with more liquid assets will outperform those with less liquid assets. However, according to the theory of agency costs, high liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets (Adams and Buckle, 2000). In addition, liquid assets imply high reinvestment risk since the proceeds from liquid assets would have to be reinvested after a relatively short period of time.

Unquestionably, reinvestment risk would put injure on the profitability of an enterprise. In this case, it is, therefore, likely that enterprises with less liquid assets outperform those with more liquid assets. There are study conducted Malawi concerning of determinant of profitability of listed commercial banks in developing countries evidence from Malawi, that liquidity and management efficiency significantly affects ROA whereas; capital adequacy has been found to have insignificant effect Andrew, (2016). However the effect of liquidity on the performance of banks is not strong (Vincent and Gemechu.2013) and the relationship between banks performance and capital adequacy & management efficiency was found to be positive.

V. Size of Banks (SBR)

Another factor that can affect the financial performance of saving and credit cooperative society is its size. According to Cull et al, (2007) the size of an MFI is significantly positively linked to its financial performance. This variable is included to capture the economies or diseconomies of scale. There is consensus in academic literature that economies of scale and synergies arise up to a certain level of size. Beyond that level, financial organizations become too complex to manage and diseconomies of scale arise. The effect of size could therefore be nonlinear (Amdemikael, 2012). According to Abebech (2018) the size of cooperative society has positive impact on financial performance. The study of (Short, 1979), (Smirlock, 1985), (Bikker, 2002) and (Kosmidou, 2007). They advance several arguments to justify their results: A large firm reduces costs due to economies of scale that this entails; large banks can also raise capital at a lower cost. On the other group study of (Stiroh, 2006) and (Tesfaye, 2013), show the negative effects of the size and emphasize that the more a bank is, the more difficult it is to manage. In addition, the authors point out that the size may result from aggressive growth strategy, obtained at the expense of margins and performance. In the same (Kasmn,2010),finds a statistically significant and negative impact on the size of the net interest margin (net interest margin) watching a panel of 431 banks in 39 countries. Many other authors such as (Berger A. H., 1987) respond to the argument of economies of scale and argue that some costs can be reduced simply by increasing the size. Vincent (2013) findings showed that bank specific factors significantly affect the performance of commercial banks in Kenya, except for liquidity variable. But the overall effect of macroeconomic variables was inconclusive at 5 percent significance level. The moderating role of ownership identity on the financial performance of commercial banks was insignificant. Thus, it can be concluded that the financial performance of commercial banks in Kenya is driven mainly by board and management decisions, while macroeconomic factors have insignificant contribution (Athanasoglou P. B., 2005) examined the effect of bank-specific and macroeconomic determinants of bank profitability of Greek commercial banks and covers the period 1985-2001. The profitability variable is presented by two alternative measures: the Return on Assets (ROA) and the Return on Equity (ROE). Five bank-specific factors used to test the correlation with bank profitability. Capital adequacy 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. Macroeconomic control variables, such as inflation and cyclical output, clearly affect the performance of the banking sector. In conclusion, their findings indicated that all bank-specific determinants, with the exception of size, affect bank profitability significantly in the anticipated way.

There are studies conducted Malawi concerning of determinants of profitability of listed commercial banks in developing countries found out that liquidity and management efficiency significantly affects ROA whereas;

capital adequacy has been found to have in significant effect (Andrew 2014). However, the effect of liquidity on the performance of banks is not strong (Vincent and Gemechu 2013) and the relationship between bank performance and capital adequacy and management efficiency was found to be positive.
According to (Adams and Bukle, 2000) since liquidity measure the ability of managers in insurance companies to fulfill their immediate commitments to policyholders and other creditors without having to increase profits on understanding and investment activates and liquidity financial assets. This reasoning implies that high liquidity obviates the need for management to improve annual operational performance. Furthermore, high liquidity could increase agency costs for owners by providing managers with incentives to misuse excess cash flows by investigating in projects.

Athanasoglou (2006) examined the profitability behavior of bank- specific, industry-related and macroeconomic determinants, using an unbalanced panel dataset of South Eastern European credit institutions over the period 1998-2002. This paper used return on assets and return on equity as proxies for bank profitability. Among the independent variables analyzed were liquidity, credit risk, and capital adequacy, operating expense, management quality, size, concentration, inflation and economic activity. The estimation results indicate that, with the exception of liquidity, all bank-specific determinants significantly affect bank profitability in the anticipated way. In contrast, a positive relationship between banking reform and profitability was not identified, whilst the picture regarding the macroeconomic determinants is mixed.

Damena (2011) in his study examined the 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 Ordinary Least Square (OLS) technique to investigate the impact of some internal as well as external variables on major profitability indicator i.e., ROA. The estimation results showed that all bank-specific determinants, with the exception of saving deposit, significantly affect commercial banks profitability. Finally, with regard to macroeconomic variables, only economic growth exhibits a significant relationship with banks profitability.

The study by Belaynheh (2011) on the title “determinants of commercial bank financial empirical study on Ethiopia commercial bank that cover the period 2001-2010, the paper used ordinary least square (OLS) technique to investigate the impact of capital, size, loan, deposit, noninterest income, non-interest expense, credit risk, market concentration, economic growth, inflation, and saving deposit, significantly affect commercial banks profitability in Ethiopia. Market concentration is also a significant determining factor of profitability. With regard to macroeconomic variables, only economic growth exhibits a significant relationship with banks’ profitability.

According to Kifle (2011) the study in titled management of saving and credit cooperative of outreach and sustainability. The result of correlation analysis between independent variables and dependent variable showed that existence of strong positive correlation between financial performance (ROA) and the asset utilization. A moderate positive correlation relationship exists between operational efficiency and size of SACCOs (assets size). Conversely, there is a significant negative correlation between financial performance (ROA) and the operational efficiency with correlation coefficients. The study also came out with a range of perspectives on the factors affecting the outreach and sustainability of CBEs under study. Lack of awareness and poor saving culture, weak organizational arrangement and governance, policy and regulatory environment, weak institutional capacity, low capital base, lack of differentiated products, inappropriate loan security requirements, and threats from other financial institutions (MFIs) were among the factors affecting the outreach and sustainability of CBEs.

Tesfaye, (2013), by adopting a quantitative approach investigates the determinants of Ethiopian banks performance considering bank specific and external variables on selected banks profitability for the 1990-2012 periods. The empirical investigation uses the accounting measure Return on Assets (ROA) to represent Banks’ performance. The study finds that bank specific variables by large explain the variation in profitability. High performance is related to the ability of banks to control their credit risk, diversify their income sources by incorporating non-traditional banking services and control their overhead expenses. In addition, the paper finds

that bank's capital and liquidity status are not significant to affect the performance of banks. On the other hand, the paper finds that bank size and macro-economic variables such real GDP growth rates have no significant impact on banks' profitability. However, the inflation rate is determined to be significant driver to the performance of the Ethiopian commercial banks.

Abebaw (2014) conduct a study on the determinants of financial performance: a study on selected micro finance institutions in Ethiopia; the study examined to what extent the MFI- specific, industry-specific and macroeconomic factors determinants the Ethiopian micro finance industry financial performance from the period 2003-2011. By using OLS estimation method to measure the effect of internal and external determinants on financial performance in terms of return on asset. The study was based on a nine years secondary data obtained from MFI, performance analysis report and ministry of finance for thirteen (13) selected MFIs in Ethiopia. Beside this the study used primary data analysis to solicit mangers perception towards the determinants of financial performance of MFIs in Ethiopia. Regarding the explanatory variables, operational efficiency, GDP and size of MFIs affect MFIs financial performance significantly. The outcome of the study shows that Age of microfinance institutions has a positive but statistically insignificant effect on their financial performance. The other explanatory variables is Portfolio at risk > 30, gearing ratio, capital to asset ratio and Market concentration affect negatively and not significant. But, the current study focused on dterminats of profitablity in commercial bank of Ethipopia that operating at south Addis Ababa since there was no study conducted with the same topic in the study area.

7. Conceptual Frame work of the study

The conceptual frame work is developed based on the independent variables Mangeral Efficency Ratio (MER), Capital Adequecy Ratio (CAR), Debt to Asset Ratio (DER), Bank Lquidty Ratio (LBR) and Size of a bank (SBR)factors in the rectangle at the left side has significant impact on dependent variable (Profitablity (ROA)) in the circle at right side as follow:

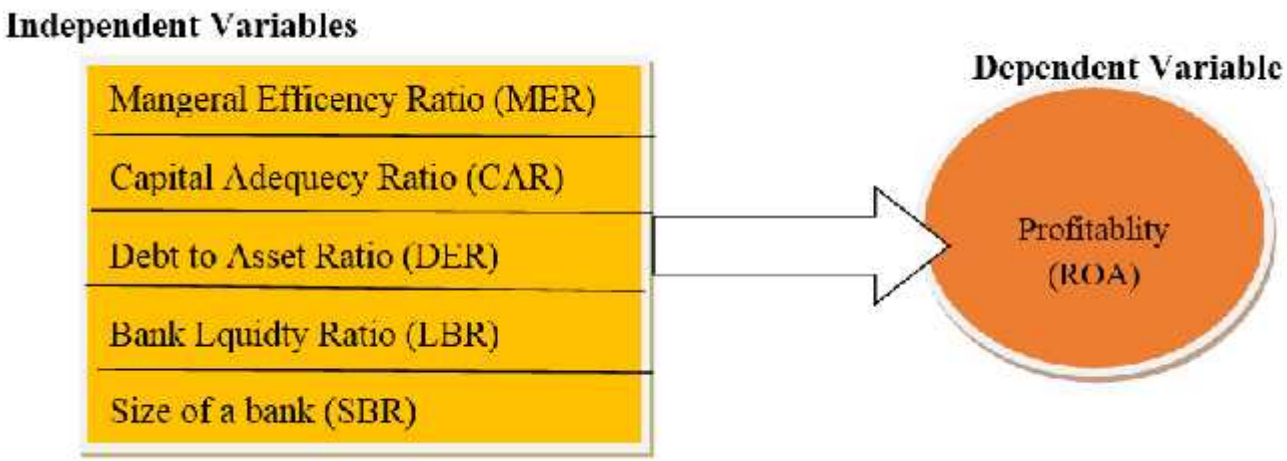


Figure 2 Conceptual Framework
Source: Authors' Own Construct (2019)

8. Research Methodology

The study takes into account the Quantitative approach. Quantitative approach, the researcher has used secondary data. The population of the study is branches in south Addis Ababa district. Population is a collection of elements thatconform to specific criteria and weintend to generalize the result of the research. The total populations of this study were (78) seventy eight CBE branches in south Addis Ababa district. The sampling techniques that were employed for this research are simple random sampling and purposive sampling. First the

researcher s were randomly selected South Addis District out of four CBE districts at Addis Ababa and then purposively selected twelve branches from the 78 branches in the district that have 5 years audited reports to obtain relevant data. Accordingly, the sample selected for the study is 5 years of twelve (5*12 = 60 number of observation) the CBE SAAD branches financial statements and the managers of the branches.

The researcher collected secondary data through review of financial statements of the branches. The interview was used by the researchers to collect to primary data. For the purpose of this research, methodological triangulations (using more than one research method or data collection technique) were used. This method involves the use of multiple qualitative and quantitative methods to find inquire and required cross-checking data from multiple sources to search for regularities in the research data. In order to capture different dimensions of the same phenomenon and to increase the credibility and validity of the results, the research uses varieties of methods to analyze data on the same topic, which involves both qualitative and quantities data analysis methods.

9. Econometric Model Specification

The researchers have developed the model by driving sample regression function from population regression functions. In the multiple linear regression model, the regressed (dependent variable) is a linear function of MER,CAR, DER, LBR and SBR (independent variables) corresponding to the explanatory variables and a random disturbance or error. The model also has an intercept. Designating the regressed by ROA, the independent variables by M, CAR, DER, LBR and SBR. and the random disturbance- by **u**, the population model of multiple linear regressions is given by the following expression as from (a up to e):

$$ROA = \beta 0 + \beta 1 * MER + \beta 2 * CAR + \beta 3 * DER + \beta 4 * LBR + \beta 5 * SBR + u \quad \ldots\ldots (a)$$

Whereas:
ROA=Return on Asset
β0 = Constant term
β1, β2, β3, β4 and β5 refers to coefficients of independent variables
MER = managerial efficiency
DER=Debt equity ratio
CAR = Capital adequacy Ratio
LBR=liquidity of the bank
SBRr=Size of a bank
u= Error term

On the right hand of (3.1) we can distinguish two parts: the systematic component β0+ β1*M ER+β2*CAR+β3*DER+β4*LBR+ β5*SBR and the random disturbance u. Calling μROA to the systematic component, we can write it as:

$$\mu ROA = \beta 0 + \beta 1 * MER + \beta 2 * CAR + \beta 3 * DER + \beta 4 * LBR + \beta 5 * SBR \quad \ldots\ldots\ldots\ldots\ldots (b)$$

This equation is known as the population regression function

Now, let us suppose we have a random sample of size n {(ROAi, MERi, CARi, DERi, LBRi, SBRi): i =1, 2,,, n} extracted from the population studied. If we write the population model for all observations of the sample, the following system is obtained:

$$ROA1 = \beta 0 + \beta 1 * MER + \beta 2 * CAR + \beta 3 * DER + \beta 4 * LBR + \beta 5 * SBR + u1$$
$$ROA2 = \beta 0 + \beta 1 * MER + \beta 2 * CAR + \beta 3 * DER + \beta 4 * LBR + \beta 5 * SBR + u2$$
$$ROA3 = \beta 0 + \beta 1 * MER + \beta 2 * CAR + \beta 3 * DER + \beta 4 * LBR + \beta 5 * SBR + u3$$

... ...

$$ROAn = \beta 0 + \beta 1 * MER + \beta 2 * CAR + \beta 3 * SBR + \beta 4 * AQ + \beta 5 * SBR + un \ldots\ldots (c)$$

If we take into account the denominations given to vectors and matrices, the model of Classical Linear Regression

Model (CLRM) equation 3.3 can be expressed in the following way:

$$ROA = X'\beta + u \quad \text{(d)}$$

Where **ROA** is a vector n×1, **X** is a matrix n×k, β is a vector k ×1 and **u** is a vector n×1.
The basic idea of regression is to estimate the population parameters, β_1, β_2, β_3.....$\beta_5$takefrom a given sample. The sample regression function (SRF) is the sample counterpart of the population regression function (PRF). Since the SRF is obtained for a given sample, a new sample will generate different estimates. The SRF, which is an estimation of the PRF, is given by the following equation:

$$ROA = \hat{\beta}0 + \hat{\beta}1 * MER + \hat{\beta}2 * CAR + \hat{\beta}3 * DER + \hat{\beta}4 * LBR + \hat{\beta}5 * SBR + \hat{u} \quad \text{(e)}$$

10. Result and Discussions

Table 1 shows the mean, maximum and minimum values and standard deviation of the dependent and independent variables over the study period.

Table 1 Summary of Descriptive Statistics

Variables	Observation	Mean	Max	Min	Std.Div
ROA	60	0.052450	0.095340	0.005300	0.028313
MER	60	3.528543	6.886400	0.445500	2.901063
CAR	60	5.284330	8.293300	2.052100	2.311943
DER	60	5.509020	7.384900	1.690400	2.131763
LBR	60	3.693623	11.87560	1.111500	2.986367
SBR	60	7.351263	9.854500	5.969900	1.497402

Source: calculated from E-views 8 results (2019).

According to table 1 above, the profitability of CBE branches in SAAD as measured by ROA (net income to total asset) for 60 observations (panel data of 12 CBE branches in SAAD for 5 years) has a mean value of 0.052450 percent. The result indicates that, the sampled CBE branches on average earned a profit of 0.052450 cents from one birr invested in the asset of the branches.

The maximum value of the ROA was 9.534 percent and the minimum value of 0.53 percent with the standard deviation of 0.028313. This shows that profitable CBE earned 0.08534 cents of profit for a one birr invested its assets. On the other hand, the least profitable CBE earned 0.0052cents of profit for each birr invested in their assets during the study period (2014 upt 2018). The standard deviations of 0.028313 shows the per unit profitability variations of bank.

In relation to explanatory variables arranged in table 1 above, the mean value of management efficiency (MER) was 353.843 percent indicating that on averaged sampled CBEs were incurred 3.528543 cents operating expense to generate one birr operating income. The maximum value of management efficiency was 688.6400 percent and the minimum value of 44.55 percent. This shows that managerially efficient CBEs incurred operating cost of 7.3854cent to generate one birr operating income. On the other hand, managerially least efficient CBE incurred operating cost of 0.4455 birr to generate one birr operating income with a standard deviation of 2.901063 it shows the profitability variations of CBE.

Capital adequacy ratio (CAR) has also has the mean value of 5.284330 percent. The mean value result suggested that 5.284330 cent of one birr asset was financed by shareholders equity while the remaining 94.71567 cents was financed through debt. The maximum value of capital adequacy was 829.3300percent and the minimum value of

205.2100 percent with a standard deviation of 2.311943. This shows that sampled CBEs financed their one birr asset using shareholders' equity range from 2.052100 cents to 8.293300 cents in their capital structure. Debt to equity ratio (DER) has the mean value of 550.9020 percent. The mean value of gearing ratio indicates that, sampled CBEs were leveraged on average 5.50 times of their equity. The maximum value of debt to equity ratio was 738.4900 percent and the minimum value of 169.0400 percent with a standard deviation of 2.131763 cents birr for one birr shareholders' equity of CBE branches in South Addis Ababa District of Ethiopia.

In regard to Bank liquidity ratio (LBR) current asset to debit ratio has the mean value of 369.3623 percent. The mean value of liquidity management indicates that, sampled CBEs were average 3.693623cent of one birr asset in the company. The maximum value of liquidity was 11.87560 percent and the minimum value 111.1500 percent with a standard deviation of 2.986367 of CBE branches in SAAD of Ethiopia.

Lastly, another explanatory variable also size of the bank (SBR) plays an important role for organization to maintain their market positions. The mean value of this variable was 735.1263 percent in its natural logarithms value. The maximum value of size was 985.4500 percent and the minimum value of 596.9900 percent with standard deviation value of 1.497402 of CBE branches in SAAD of Ethiopia.

Diagnostic Tests

11. Diagnostic Tests

The following diagnostic tests were carried out to ensure that the suits the basic assumption of classical linear model. Among the assumption, the researcher conducted four basic diagnostic tests to check if the data meet the requirement. Normality, multicollinearity, autocorrelation, and heteroscedasticity tests were undertaken.

i. **Normality:** to check for normality, descriptive statistics were used. Kurtosis and skewness of the distribution of the data were examined.
ii. **Multicollinearity:** the existence of strong correlation between the independent variables was tested using variablescorrelationcoefficients(CC);conditionindex(CI)and varianceinflationfactor (VIF).
iii. **Heteroscedasticity:** to avoid the problem of heteroscdasticity of disturbance terms, weigheted Generalized Least Square (GLS) was employed in establishing the relationship.
iv. **Autocorrelation:** to check if there is a pattern in the errors, the Breusch-Godfrey Serial Correlation LM Test was conducted.

In this part of the thes is ,the linearity of the parameter is assumed since the model applies linear ordinary least square(OLS). The objective of the model is to predict the strength and direction of association among the dependent and independent variables in the model.

Test for Normality

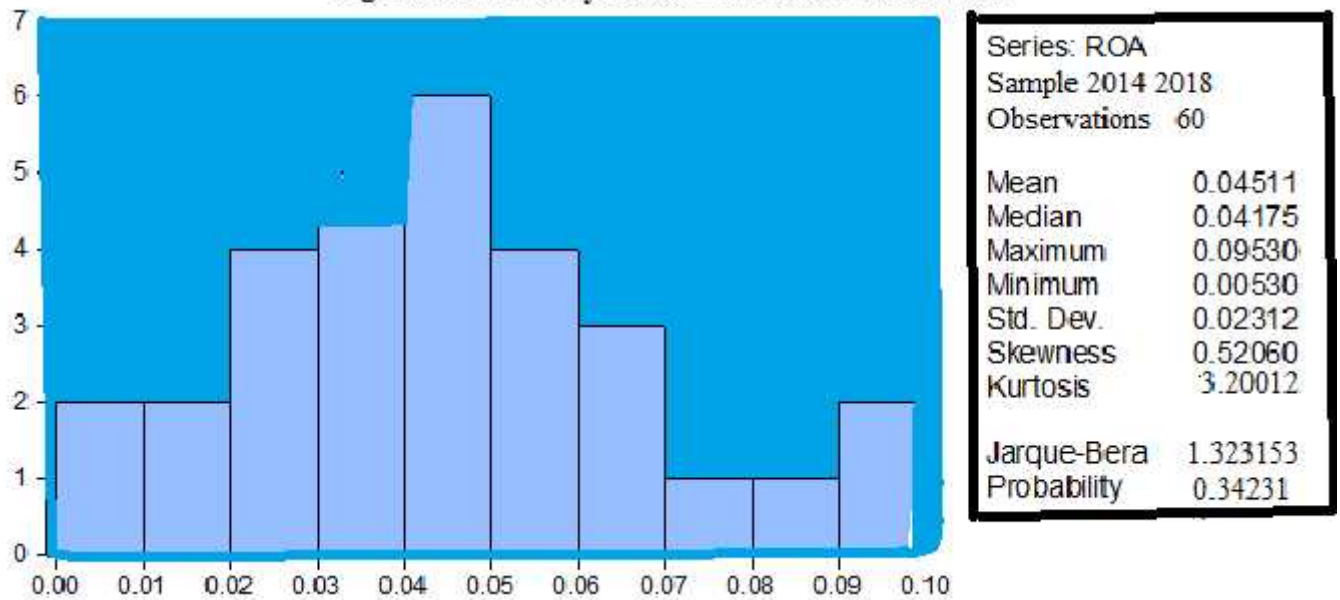
The Classical Linear Regression Model assumes that the error term is normally distributed with the mean of error being zero as positive error will offset the negative error. According to (Brooks, 2008), in order to conduct single or joint hypothesis tests about the model parameter, the normality assumption (ut ~ N (0, σ2) (i.e. the errors are normally distributed) must beful filled.In this study,the normality of the data was checked with the popular Jarque-Bera test statistic. If the residuals are normally distributed,the Jarque-Bera statistic would not be significant at 5 percent significant level meaning disturbance to be normally distributed around the mean.This means that the p-value given at the bottomof the normality test screen should be bigger than 0.05 to not reject the null hypothes is of normality at 5 percent significant level.Jarque-Bera also formalized this by testing the residuals for normality and testing whether the coefficient of skeweness and kurtosis are close to zero and three respectively. The hypotheses for the normality test were formulatedas follow:

H_0: Error term is normally distributed.

H_1: Error term is not normally distributed.

Decision Rule: Reject H_0, if P-value less than significant level 0.05. Otherwise, do not reject.

Figure 1: Normality test for residuals of ROA mode



Source: Calculated from E-views 8 results (2019).

The normality test result of ROA model in figure 1 above shows, the histogram was bell-shaped and the Jarque -Bera statistic has a P-value of (1.323153) implies that the p-value for the Jarque-Bera test for this models is greater than 0.05. So, the result indicates that the errors were normally distributed and there was no problem of normality on the ROA model. Based on the statistical result, the study failed to reject the null hypothesis of normality at the 5 percent significance level.

Test for Hetroskedasticity; var(u_t) = $\sigma^2 < \infty$

Among the OLS assumptions,one of the diagnostic tests conducted in this study is heteroscedastic test.This the oretically expressed as by Brooks (2008:133) var (ut)=σ2';it has been assumed that the variance of the errors is constant,σ2.In the classical line arregression model,one of the basic assumptions is Homoskedasticity assumption that states as the probability distribution of the disturbance term remains same for all observations.That is the variance of each u_t is the same for all values of the explanatory variable.However,if the disturbance terms do not have the same variance,this conditionof non-constantvarianceor non-homogeneity of variance is known as heteroscedasticity.Accordingly, in order to detect the heteroscedasticity problems, Breusch-Pagan test wasutilized in this study.This test states that if thep-value is significant at 95 confidence interval,the data has Heteroskedasticity problem,where as if the value is in significant (greater than 0.05), the data has no Heteroskedasticity problem. It is hypothesized that asfollows;

Ho: Thereis no Heteroskedasticity problem.

Ha: There is Heteroskedasticity problem.

Decision Rule: Reject H_0, if P-value less than significant level 0.05. Otherwise, do not reject.

Table 2 Heteroscedasticity Test for ROA

Heteroskedasticity Test: ARCH			
F-statistic	1.222825	Prob. F(20,9)	0.3933
Obs*R-squared	21.92982	Prob. Chi-Square(20)	0.3443
Scaled explained SS	10.44650	Prob. Chi-Square(20)	0.9593

Source:Calculated from E-views 8 results (2019).

Thus, table 2 above shows that, both the F-statistic and Chi-square tests give the same conclusion that there was no significant evidence for the presence of Heteroskedasticity in ROA model. Since the p-values in all of the cases were above 0.05, the null hypothesis of there is no Heteroskedasticity problem is failed to reject at 5 percent significant level.

Test For Auto Correlation; Cov (Ui, Uj) = 0 For I = J

The third assumption made for the CLRM's disturbance terms is that the covariance between the error terms over time is zero. In other words, it is assumed that the errors are uncorrelated with one another. If the errors are correlated with one another, it would be stated that they are 'auto-correlated' or that they are 'serially correlated'. According to (Brooks, 2008), when the error term for any observation is related to the error term of other observation, it indicates that auto correlation problem exist in the model. In the case of auto correlation problem, the estimated parameters can still remain unbiased and consistent, but it is inefficient.

The result of t-test, F-test or the confidence interval will become invalid due to the variances of estimators tend to be under estimated or over estimated. Due to the invalid hypothesis testing, it may lead to misleading results on the significance of parameters in the model. Breusch-Godfrey Serial Correlation LM Test was used in this study to detect the auto correlation problem.It is hypothesized that asfollows;
Ho: There is no serial correlation.
H1: presenceofserial correlation.

Decision Rule: Reject H_0, if P-value less than significant level 0.05. Otherwise, do not reject.

Table 3:Test For Serial Correlation of ROA Model

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.733845	Prob. F(2,22)	0.4914
Obs*R-squared	1.876226	Prob. Chi-Square(2)	0.3914

Source:Calculated from E-views 8 results (2019).

As it can be seen from the above tables 3, the P-value of both F-statistic and Chi-Square for ROA model were (0.4914) and (0.3914) respectively, which were greater than the significance level of 5 percent. Hence, the null hypothesis of no serial correlation is failed to reject at 5 percent of significant level. The result supports the absence of serial correlation in this model. Therefore, it can be concluded that, the covariance between residuals is zero and absence of serial correlation problem was found conclusively from the LM tests.

Test for Multicollinearity

An implicit assumption that is made when using the panel least square estimation method is that the independent variables are not correlated with one another. If there is no relationship between the explanatory variables, they would be said to be orthogonal to one another.

If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. If an independent variable is an exact linear combination of the other independent variables, then we say the model suffers from perfect collinearity, and it cannot be estimated by OLS (Brooks, 2008).

Table 4 Correlation Matrix of Explanatory Variables

Variables	ROA	SBR	MER	LBR	DER	CAR
ROA	**1.000000**	-0.319343	0.351559	-0.639671	0.568050	0.170713
SBR	-0.319343	**1.000000**	-0.054754	0.747496	-0.892213	-0.650948
MER	0.351559	-0.054754	**1.000000**	-0.263362	0.116309	0.159219
LBR	-0.639671	0.747496	-0.263362	**1.000000**	-0.880430	-0.494875
DER	0.568050	-0.892213	0.116309	-0.880430	**1.000000**	0.681348
CAR	0.170713	-0.650948	0.159219	-0.494875	0.681348	**1.000000**

Source: Result of E-views 8 results (2019).

So,in this study correlation matrix for five of the independent variables shown above in the table 5 had been estimated.The result of the above correlation matrix shows that the highest correlation coefficient was (-0.892213) which is between debt to equity ratio and bank size, Margaritis (2010), and Hair (2006)argued that correlation coefficient below 0.9 may not cause serious multicollinearity problem, it is conclude that there was no serious of multicollinearity problem in this study and adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change.

12. Results of Regression Analysis (OLS Regression)

This part of the research discusses the regression results of random effect model that determines of the financial performance of 12 CBE branches in SAAD. In this study, the profitability is measured by the return on asset. This part presented the econometric regression model used and the regression analysis results using table 5 below. In this section all formulated hypothesis were analyzed, tested and the impacts were presented based on the regression analysis out put using E-views-8 software.

With regarding Econometric models specification, as presented in the third chapter the econometric model used in this study in order to investigate the determinants of profitability of CBE was provided as follows:

$$ROA = \hat{\beta}0 + \hat{\beta}1 * MER + \hat{\beta}2 * CAR + \hat{\beta}3 * DER + \hat{\beta}4 * LBR + \hat{\beta}5 * SBR + \hat{u} \ldots\ldots\ldots \text{(e).}$$

Ordinary least squares (OLS) is a method for estimating the unknown parameters in a linear regression model, with the goal of minimizing the sum of the squares of the difference between the observed responses (values of the variable being predicted) in a given dataset and those predicted by a linear function of a set of explanatory variables. The table below presents the regression result for determinants of financial performance of SACCOs measured by the ratio of return on asset.

Table 5: OLS Regression Results On ROA Model

Dependent Variable: Roa				
Method: Panel Least Squares				
Total Panel (Balanced) Observations: 30				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
Constant	-0.145339	0.068504	-2.121604	0.0444
MER	0.003828	0.002034	1.882164	0.0720*
CAR	-0.004326	0.002242	-1.929611	0.0656*
DER	0.017622	0.005787	3.044976	0.0056***
LBR	-0.001363	0.002836	-0.480666	0.6351
BSR	0.014296	0.005284	2.705557	0.0123**
R-squared	0.634276	Mean dependent var		0.042450
Adjusted R-squared	0.558084	S.D. dependent var		0.028313
S.E. of regression	0.018822	Durbin-Watson stat		2.054091
F-statistic	8.324662			
Prob(F-statistic)	0.000112			

The result is significant at 1 %(***), 5 %(**) & 10 %(*) percent significant level respectively.
Source: Result of E-views 8 (2019).

The estimation result of the panel regression model used in this study was presented in table 6 above. R-squared was measured the goodness off it of the explanatory variables in explaining the variations in financial performance of CBE measured by ROA.As shown in the table above, the R-squared and the adjusted-R squared statistics of the model were 63.42 percent and 55.81 percent respectively.This result indicates that 55.81 percent of variation in the dependent variable is explained by the explanatory variables incorporated in the model. That means the explanatory variables (such as, management efficiency, capital adequacy, debt to Equity ratio, bank liquidity and size together explain about55.81 percent of the variation in the return on asset of the sampled banks.The remaining 44.19 percent of the variation in the financial performance of CBE branches in SAAD measured

by return on asset explained by other variables which are not included the model during the study period. For panel data R^2 greater than 20 percent is still large enough for reliable conclusion. Since the R^2 and Adjusted-R^2 of the model was more than 20 percent, these variables jointly have more explanatory power of the variation in the financial performance of CBEs in the study period. From table 5 above, there searcher found the following estimated regression equation;$\widehat{ROA}$= -0.145339+0.003828 (MER) -0.004326 (CAR) -0.017622 (DER) -0.001363 (LBR) + 0.014296 (SBR) + ε...(e).

By this, F- statistics (8.324662) which is used to test the overall significance of model was presented and null hypothesis can be clearly rejected at 1 percent level of significant, since the p-value was (0.000112) which was sufficiently low, indicates the reliability and validity of the model at 1 percent level of significance.

Based on the results shown in table 5 above, all explanatory variables such as management efficiency, capital adequacy, debt to equity ratio, and size had statistically significant impact on profitability of CBE measured by return on asset. Among the significant variables,capital adequacy, debt to equity ratio, size of the bank were statistically significantat 10 percent significance level and management efficiency at 5 percent significance level and 1 percent mean while the p-value of the variables were(0.0720), (0.0656), (0.0056), and (0.0123), respectively. Finally, liquidity of the bank is not statistically significant even at 10 percent significance level with p-value of (0.6351).

The Difference Between Random and Fixed Effect Model

The results so far indicates that all CLRM assumptions were not violated, the OLS regression was BLUE and can be safely applied. However,since this study used a paneldata,there are two types of panel estimator approaches that canbe employed, namely:fixed effects models (FEM)and random effects models (REM) in order to robust the OLS regression results and give more valid results.

According to Brooks (2008), there are broadly two classes of panel data estimator approaches that can be employed in financial research. These are fixed effect model and random effect model. Fixed effects models allow the intercept in the regression model to differ cross-sectionally but not over time, while all of the slope estimates are fixed both cross-sectionally and over time. An alternative to the fixed effects model described above is the random effects model, which is some times also known as the error components model. As with fixed effects, the random effects approach proposes different intercept terms for each entity and again these intercepts are constant over time, with the relationships between the explanatory and explained variables assumed to be the same both cross-sectionally and temporally.

In order to choose and apply the appropriate model, the hypothesis was developed and tested by Hausman specification test. The null hypothesis is: random effect model is appropriate and alternative hypothesis is: fixed effect model is appropriate. If the p-value is greater than 5 Percent, the null hypothesis should be accepted otherwise alternative hypothesis. Based on Hausman specification test in the model, random effect model can be appropriate for the estimation of the model since the p-value of the model is greater than 5 Percent

H_0: Random Effects model is appropriate

H_1: Fixed Effects model is appropriate

DecisionRule: Reject H_0ifp-value lessthan significance level0.05. Otherwise, donotreject.

Table 6 : Haussmann Test on RO Amodel

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test Cross-Section Random Effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	16.538605	5	0.0055

Source:calculatedfromE-views8 results (2019).

As shown from the Haussmann specification test tables 6 above,the P-value for ROA model was (000.55), which is less than 0.05. Hence, the null hypothesis of the random effect model is appropriate is rejected at 5 percent of significant level. This implying that, fixed effect model is more appropriate than random effect model inorder to make robust theOLS regressionresults and gives more valid results.

Table 7 Random Effect Regression Results On ROA Model

Dependent Variable: ROA				
Method: Panel EGLS (Cross-section fixed effects)				
Total panel (balanced) observations: 30				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
Constant	-073458	0.034002	-2.1604011	0.0348
MER	0.009269	0.002474	3.746116	0.0014***
CAR	0.018500	0.009042	2.045992	0.0549*
DER	0.006123	0.006288	0.973863	0.3424
LBR	-0.005977	0.002718	-2.199086	0.0405**
SBR	0.001812	0.001924	0.942143	0.3579
R-squared	0.951433	Mean dependent var		0.064494
Adjusted R-squared	0.925872	S.D. dependent var		0.078919
S.E. of regression	0.014985	Sum squared resid		0.004266
F-statistic	37.22140	Durbin-Watson stat		2.486443
Prob (F-statistic)	0.000000			

The Analysis made based on 1 %(***), 5 %(**) & 10 %(*) percent significant level.
Source: Computed from E- views 8 result (2019).

The estimation result of the operationa lpanelreg ression model used in this study was presented in table 7 above. R-squared was measured the goodness off it of the explanatory variables in explaining the variations in financial performance of CBE measured by ROA. As shown in the table above, R-squared and the adjusted-Rs quared statistics of the model were 95. 14 percent and 92.58 percent respectively.The result indicates that 92.58 percent variation inthe dependent variable was explained by the explanatory variables in the model.That means the explanatory variables (such as management efficiency, capital adequacy, gearing ratio, liquidity management, and size are jointly explain about 92.58 percent of the variation in the return on asset.There maining 7.42 percent of the variation in the financial performance of CBE (as measured by return on asset) explained by other variables which are not included in the model.

ROA= -073458+0.009269 (MER) it +0.018500 (CAR) it +0.006123 (DER)it -0.005977 (LBR)it + 0.001812 (SBR)it +εit

Besidethis,F- statistics (37.22140) which is used to test the overall significance of the model was presented,and null hypothesis can be clearly rejected at 1 percent level of significant, since the p-value was (0.0000) which was sufficiently low, indicates the reliability and validity of the model at 1 percent level of significance.

The coefficients of MER, CAR, DER, and SBR are 0.009269, 0.018500, 0.006123 and 0.001812respectively shows that one unit changes in MER, CAR, and SBR will have 0.009269, 0.018500, 0.006123 and 0.001812 changes on financial performance of bank with the same direction respectively. On the other hand, (LBR) having coefficient of (- 0.005977) respectively affects profitability negatively which means the one unit of LBR change in the bank have a (0.005977) unit change on CBE financial performance.

Based on the results shown in table 7 above, all explanatory variables except liquidity management had statistically significant impact on financial performance of the bank measured by return on asset. Among the significant variables, management efficiency was statistically significant at 1 percent significance level since the p-value of the variables was (0.0014). Whereas variables like capital adequacy ratio and debt to asset ratio

(liquidity management) are statistically significant at 10 and 5 percent significance level with p-value of (0.0549) and (0.0405) respectively.

Table 8: Summary of Expected and Actual Influence of Explanatory Variables on ROA

Relation with ROA	Expected	Actual result	Decision
MER	H1: Positive & significant	Positive & significant	Accepted
CAR	H2: Positive & significant	Positive & significant	Accepted
DER	H3: Positive & significant	Positive & insignificant	Rejected
LBR	H4: Negative& significant	Negative &significant	Accepted
SBR	H5: Positive & significant	Positive & insignificant	Rejected

Source: Computed from E-views 8 result (2019).

13. Summary of Findings

A descriptive analysis result shows that, CBEs operating in south Addis Ababa district are averagely generating positive ROA with a mean value of 5.5450 percent. The mean value of management efficiency was 352.8543 percent, the mean value of capital adequacy was 528.4330 percent, and the mean value of debt to equity ratio also 550.9020 percent, the mean value of liquidity management indicates 369.3623 percent and the mean value of size of bank was 735.1263 percent in its natural logarithm value.

The regression result of the study concering financial performance measured by ROA shows that; management efficiency has positive and statistically significant impact on the financial performance of CBE at 1 percent, capital adequacy at 10% and liquidity management of the bank at 5% negative significant levels respectively. Whereas, other explanatory variables such as debt to equity ratio and size of the bank has no statistically significant impact on ROA since they have p-value of more than 1%, 5% and 10% levels of significances. The explanatory variables included in this study were jointly explained about 92.5872 percent (in terms of adjusted R2) of the variation in return on asset and the probability of F-statistic of the model was zero.

14. Conclusions

Based on the findings from the descriptive analysis, the researchers had concluded that bank was averagely generating positive Profitability. Based on the findings from the regression analysis of the model, the researchers concluded that financial performance of CBE was best explained by the explanatory variables included in the model. The conclusion that can be drawn from the findings in the first hypothesis is that management efficiency has positive and statistically significant impact on ROA of CBE; which means an increase on the value of management efficiency leads to an increase on financial performance of CBE measured by ROA. The direct personal interview was conducted with each branch managers in relation to management efficiency and they responded that they have smooth and clear communication with all employees and customers of the branches. Based on the findings related to the second hypothesis, under the summary of the findings was, capital adequacy has positive and statistically significant impact on ROA of CBE; which shows that an increase on the value of this variable leads to increase on financial performance of CBE measured by ROA. The conclusion that can be drawn from the findings of the third hypothesis is that debt to equity ratio has no statistically significant impact on ROA; which means an increase on the value of this variable does not leads to an increase on financial performance of CBEs measured by ROA. Based on the findings related to the fourth hypothesis, it can be conclude that liquidity management has negative and statistically insignificant impact on ROA. Which mean that decrease on the value of this variable leads to an increase by ROA. The mangers were asked about why liquidity position has negative influence on profitability of the bank and responded that high liquidity position of the branches is due to holding more liquid financial asset (cash) on hand. Finally, based on the findings related to fifth hypotheses, it can be conclude that CBE size has no statistically significant impact on ROA; which indicates that increase on the value of this variable does not leads to an increase on financial performance of CBEs measured by ROA.

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