



ADDIS ABABA UNIVERSITY

SCHOOL OF BUSINESS ADMINISTRATION

**FACTORS DETERMINING PROFITABILITY OF
COMMERCIAL BANKS IN ETHIOPIA**

**PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
MASTERS DEGREE IN BUSINESS ADMINISTRATION**

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Abstract

The aim of this study is to investigate the key determinants which influence commercial banks' profitability in Ethiopia. The factors which determine banks' profitability categorized into two: internal and external determinants. The variables chosen to represent internal determinants for this study are: deposit, liquidity, capital adequacy, credit risk, management efficiency. While the external determinants are: market concentration, economic growth, inflation, government regulation.

The study is conducted based on secondary data sourced from National Bank of Ethiopia and their audited financial report comprising the financial statement and other performance reports for the last fourteen years (2010-2023). For the purpose of this study one government and eight private commercial banks are considered.

The analysis of the data has been done and pooled OLS regression model is selected based on model specification result as an appropriate approach for the analysis. To this end, the model is used to estimate the relationship between banks' profitability using internal and external factors.

The regression analysis showed that the relationship between various factors and Return on Assets (ROA) explained 82% of the variation in ROA. Key findings revealed that deposits (DOP), liquidity (LIQ) and capital adequacy (CAD) had a positive significant effect on ROA. Conversely, credit risk (CRR), market concentration (HHI) and Management Inefficiency (MIN) had a significant negative influence on ROA, highlighting the importance of effective management. Economic factors like GDP and inflation showed insignificant impacts, and regulatory factors such as mandatory bond security purchase were positively associated but lacked statistical significance. Based on the findings of the study, the bank management should strive to: utilize cost effective means of operation, raise the deposit level diversify their investment so as to maximize their profitability.

Chapter One

Introduction

1.1. Background of the study

In any economy banking sector plays a pivotal role for its economic development. The sector facilitates investment through mobilizing resources from the surplus to deficit units of the economy. The involvement of the sector is inevitable to facilitate internal and external trade and business activities.

In Ethiopia, the sector was introduced during the regime of Emperor Minilik II in 1905. The first bank, Bank of Abyssinia, was established in collaboration with British owned National Bank of Egypt. Following that the first indigenous bank in the history of Africans, Bank of Ethiopia, was established in 1931. Moreover different foreign and private banks were also established. In 1963 the Government separated the state and commercial activities of the bank and hence Commercial Bank of Ethiopia took over the commercial banking activities of the former state bank of Ethiopia. After the dawn fall of Emperor Haile Silassie, all private and foreign banks were nationalized and all commercial bank activities were monopolized by Commercial Bank of Ethiopia. With the emergence of the current political and economic system, banking activities opened to domestic private sectors by the proclamation No 83/1994. Following the proclamation a number of domestic private banks have been established (Mauri, 2010, National Bank of Ethiopia Official Website). In 2022/23, the total number of domestic commercial banks were 31. According to National Bank of Ethiopia 2022/23 Annual Report, in year 2022/23 the total number of branches of all commercial banks operating in Ethiopia reached to 11,282. Even though the number of branches increasing, their activities are restricted to major urban areas. Moreover, their services also limited to certain activities, mainly ordinary lending and deposit activities.

1.2. Statement of the problem

The profitability of commercial banks in Ethiopia has been studied by many scholars such as Tadesse and Eneyew,(2019), Melaku (2016) and Temesgen et. al (2019) and their findings show that in most of the banks there is a progressive capacity growth interms of profitability. But with their limited services, few branches which are concentrated in urban areas (ignoring the majority

of the population living in rural areas), technology use and lack of awareness about the industry among the society, commercial banks exhibited a significant profit performance. Therefore, this study investigated the major contributor of their performance during the past.

Secondly, National Bank of Ethiopia previously endorsed a directive of 27% Bond Purchase. The bill purchase is expected to have an impact on liquidity position, lending capacity, profitability of commercial banks operating in the Nation. The bill, MFA/ NBE BILLS/001/2011 directive, introduced in April, 2011 and demanded all privately owned commercial banks buy bonds from the central bank for every loan disbursement at a five percent interest rate with a five-year maturity period. Therefore, the study focused on investigating the impact of government regulation; capital requirement as entry barrier in addition to other key internal and external factors determining the profitability of commercial banks in Ethiopia.

1.3. Objectives of the study

The main objective of the study is to assess internal and external factors determining the profitability of commercial banking industry.

1.3.1. Specific objectives

Based on the main objective the following specific objectives are the focus areas of the study.

- ✚ To examine the impact of bank and industry specific factors on banks' profitability
- ✚ To examine the impact of macroeconomic variables (inflation and GDP) on banks' profitability and
- ✚ To assess the impact of Government regulation (bond purchase directive) on banks' profitability through resource mobilization.

1.4. Scope of the study

The study focused on examining major internal and external factors on the profitability of commercial banks: one state owned and eight private commercial banks; Namely Commercial Bank of Ethiopia, Awash International Bank S C, Dashen Bank, Wegagen Bank , Bank of Abyssinia , Corporative Bank of Oromia, Lion Bank, Nib Bank and United Bank are selected based on their coverage in terms of branches and volume of capital. Moreover, their years of experience in the

sector is also considered for the selection. The study is conducted based on secondary data obtained from National Bank of Ethiopia for the last eleven years, from 2010-2023, so as to get balanced panel data. Moreover, data from year 2021 to 2023 data is incorporated in the study from the respective banks' financial statement obtained from their official website.

Chapter Two

Review of Related Literature

2.1. Theoretical Literature

The section synthesizes findings from diverse sources to understand how these factors interact and affect profitability.

2.1.1. Return on assets (ROA)

Many studies use return on Asset (ROA) as a general measurement of bank profitability (Molyneux and Thornton, 1992; Hallunovi, 2017; Athanasoglou et al., 2008; Gul et al., 2011; Akbas, 2012). This is due to the fact that it is not distorted by the high multiplier of capital, while ROE ignore the financial leverage (Hallunovi, 2017).

2.1.2. Internal factors

Literatures on the impact of banks' management decision and internal policy as a source of performance determinant are presented below.

2.1.2.1. Profitability and Liquidity

Liquidity—banks' ability to meet short-term obligations—has a mixed impact on profitability. Molyneux & Thornton (1992) find a negative relationship, suggesting that holding too many liquid assets may limit income generation. Conversely, Eneyew (2019) reports a positive association, emphasizing liquidity's role in preventing failures. Kawshala & Panditharathna (2017) find no significant link, reflecting differing results across contexts.

2.1.2.2. Profitability and credit risk

Credit risk, the risk of borrower default, can both positively and negatively influence profitability. Angbazo et al. (1995) support a positive relationship, especially in the context of long-term loans, which often yield higher returns. However, studies like Petria et al. (2015) and Ongore & Kussa (2013) highlight a negative effect, linking higher credit risk to loan losses and financial instability

2.1.2.3. Profitability and bank deposit

Deposits are a primary funding source and can enhance profitability by enabling lending. García-Herrero et al. (2009) affirm this positive effect. However, Berger (1995a) warns that deposit insurance could lead to moral hazard and agency problems, potentially undermining profitability.

2.1.2.4. Profitability and management inefficiency

Management inefficiency is usually approximated by total operating expense to income ratio and it has negative and statistically significant impact on banks profitability. The more efficient a bank is, the higher is its profitability Akshaya (2017). Athanasoglou et al. (2008) and Petria et al. (2015), Bourke (1989) and Molyneux and Thornton (1992) find the same result better quality management and profitability.

2.1.2.5. Profitability and capital adequacy

According to Perera et al. (2013) Capital adequacy is significantly and positively related with bank profitability. This result validate the fact that banks with high capital adequacy can searches business opportunities more successfully and obtain deposits and other funding at small cost and has more time and flexibility to handle their problems arising from unanticipated losses. This assertion is supported by Wasiuzzaman and Gunasegavan (2013), Kosmidou (2008) and Naceur (2003).

2.1.3. External Factors

The external determinants of commercial banks profitability are those factors which are external to the commercial banks and hence outside the control of the management. There are several specific factors suggested as a determinant on profitability.

2.1.3.1. Profitability and market concentration

Market concentration is typically measured using the Herfindahl-Hirschman Index (HHI). Some studies (Bourke, 1989; Molyneux & Thornton, 1992) report a positive relationship between concentration and profitability, based on the structure–conduct–performance hypothesis. Others (Park & Weber, 2006; García-Herrero et al., 2009) argue the opposite, suggesting more competitive markets foster better performance. Căpraru & Ihnatov (2014) find no significant effect, reflecting inconclusive results.

2.1.3.2. Profitability and macroeconomic conditions

Economic growth, commonly measured by GDP, usually correlates positively with bank profitability. During expansion, increased demand for loans and deposits can enhance performance (Sufian & Chong, 2008). However, Eneyew & Tadesse (2019) report a counterintuitive negative effect, suggesting that robust economic activity may not always benefit banks, depending on the structure of the financial system.

2.1.3.3. Profitability and Inflation

The effect of inflation on profitability is contested. Some studies (Akbaş, 2012; Melaku, 2016) suggest a negative relationship, as inflation can erode real returns if banks fail to adjust interest rates. On the contrary, Căpraru & Ihnatov (2014) find a positive impact when inflation is anticipated and incorporated into pricing strategies. Petria et al. (2015), however, report no significant influence.

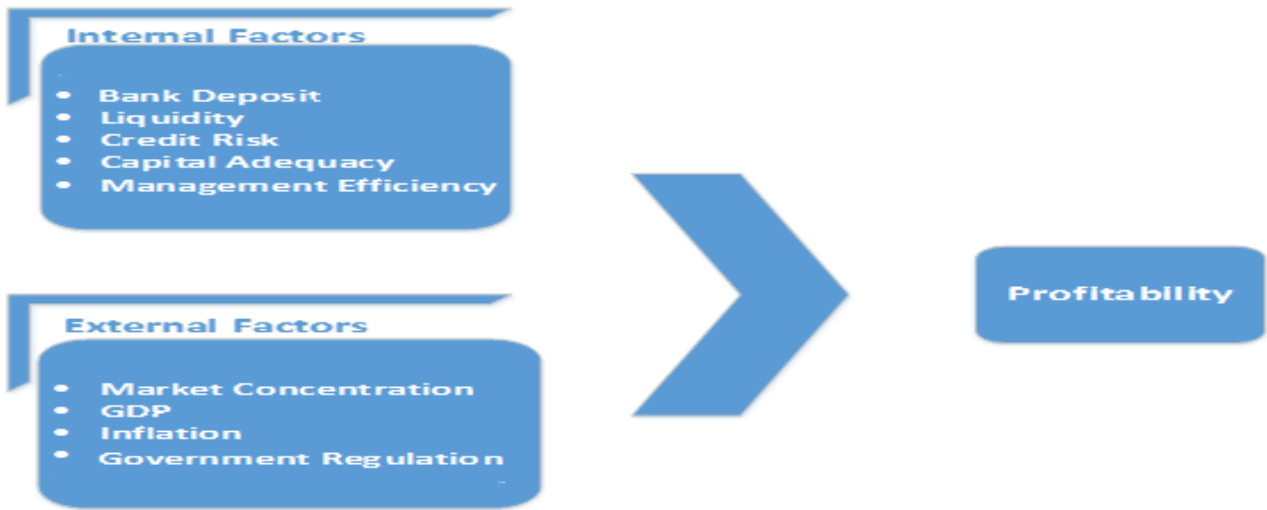
2.1.3.4. Profitability and financial regulation

Different studies are conducted on the effect of regulation profitability in the banking industry. Demirgüç-Kunt et al. (2004) concludes that regulatory environment is negatively related to profitability, since better conditions of this environment will promote competition throughout the economy.

2.3 Conceptual frame work

From the literature that are reviewed, the following schematic representation of the conceptual frame work is developed to conduct the study.

Figure 1: Conceptual frame work



Source: Adopted from Dissanayake and Kethmi (2021)

Chapter Three

Methodology

3.1. Theoretical Framework and Model Specification

3.1.1. Model specification

The equation which specifies this particular study is given as follows.

$$ROA_{it} = \alpha + \beta_1(DOP)_{it} + \beta_2(LIQ)_{it} + \beta_3(CAD)_{it} + \beta_4(CRR)_{it} + \beta_5(MIN)_{it} + \beta_6(HHI)_{it} + \beta_7(GDP)_{it} + \beta_8(INF)_{it} + \beta_9(REG)_{it} + \mu_{it}$$

Where:

α = constant term

$\beta_1 - \beta_9$ = Coefficients for the respective explanatory variables; i-th bank at time t; with $i = 1, \dots, N$; $t = 1, \dots, T$; N = number of banks; μ = error term

ROA= Return on Asset

DOP= Bank Deposit

LIQ= Liquidity

CAD = Capital Adequacy

CRR = Credit Risk

MIN = Management Inefficiency

HHI= Market Concentration

GDP = Real GDP Growth

INF = Inflation Rate

REG = Government Regulation: with dummy variable; 0 = before regulation & 1=after regulation

3.2. Description and measurements of variables

The study focused on ROA (Dependent variable) as a measure of profitability of banks and both the aforementioned internal and external variables as independent parameters.

Summary of the variables used in the regression model is depicted below.

Table 1. Description of the variables used in the regression model

Category	Variables	Description	Notation	Expected Sign
Dependent Variable	Return on Asset	Income earned on each unit of asset	ROA	
Independent Variables				
	Bank Deposit	Natural logarithm of gross deposit	DOP	+
	Liquidity	the ratio of liquid assets/total assets	LIQ	+
	Capital Adequacy	The ratio of gross capital to total assets	CAD	+
	Credit Risk	The ratio of loan-loss provisions to total loans	CRR	-
	Management Inefficiency	The ratio of total cost to total income	MIN	-
External factors	Market Concentration	H-H index on the sector	HHI	+
	Economic Growth	Natural logarithm of real GDP	GDP	+
	Inflation	Annual inflation rate of the economy	INF	+
	Government Regulation	Mandatory Bond purchase presence	REG	-

3.3. Methods of Data Collection

Secondary data on GDP, inflation and banks' financial statements is used for this study which is obtained from the National bank of Ethiopia and commercial banks. Out of the 31 banks operating in the Nation, only nine banks have been serving for fifteen years or more. Hence a representative sample from government and private banks is selected and examined. Fourteen years data (2010-2023) is be used for these banks.

Chapter Four

Results and Discussion

This section deals with the results of the study which includes the descriptive statistics, econometric results. Diagnosis tests were conducted to justify the reliability of the model. Additionally, the study used linear regression model approach. Detail analysis of the study is discussed below.

4.1. Descriptive Analysis

This dataset, consisting of 126 observations, provides a comprehensive overview of key financial and economic indicators within the banking sector. Below is a descriptive analysis of the overall observation, focusing on the mean, standard deviation, minimum, and maximum values for each variable.

Table 2. Summary of Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	126	2.67	0.852	0.317	4.941
DOP	126	9.998	1.379	6.925	13.699
LIQ	126	1.073	5.848	0.152	66.144
CAD	126	0.119	0.034	0.02	0.2
CRR	126	0.024	0.016	0	0.11
MIN	126	0.641	0.118	0.31	0.97
HHI	126	424.467	1173.279	0.82	4397.34
GDP	126	8.929	1.705	6.1	11.4

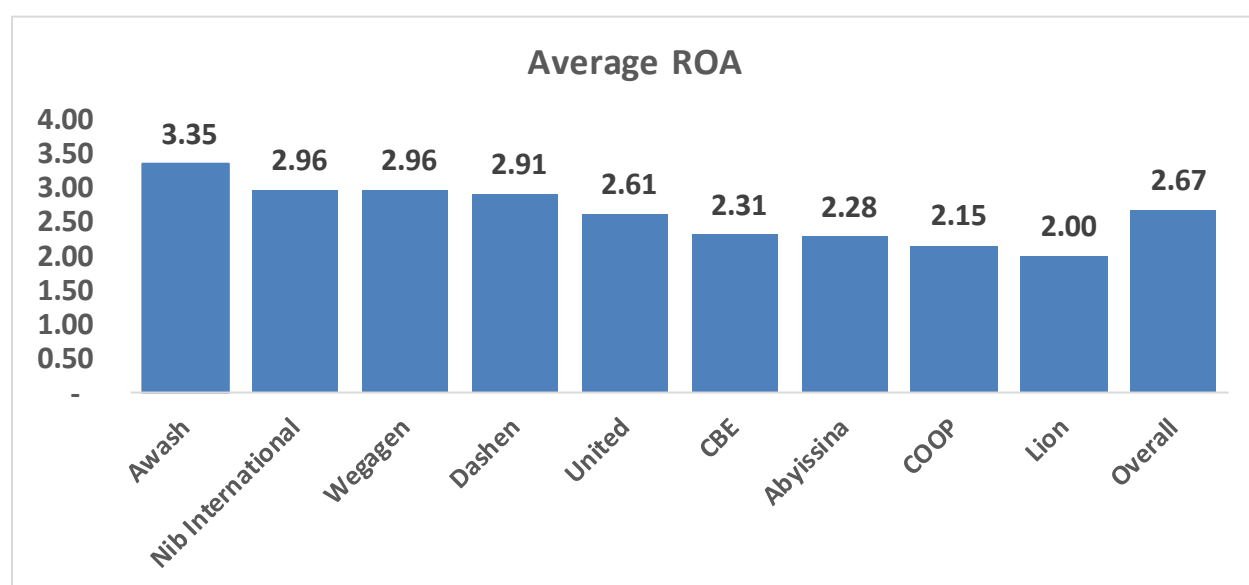
INF	126	17.764	9.811	6.6	33.9
REG	126	0.643	0.481	0	1

Source; own computation, 2024

4.1.1. ROA (Return on Assets):

The return on assets (ROA) in the banking sector averages 2.67, with a standard deviation of 0.85. This suggests moderate variability in profitability across the sample of banks. During this period the banks in the sector is performing well in terms of profitability, as they generate on average more than two folds of their asset. The banks' high returns from their assets, signals the existence of high level interest income from their lending and high level of price for their service rendered to their customer. Awash, Nib International, Wegagen and Dashen Banks are leading in generating a good amount of revenue in relation to their asset during the period that position them favourably in the competitive banking landscape.

Figure 2: Performance of the Banking Industry



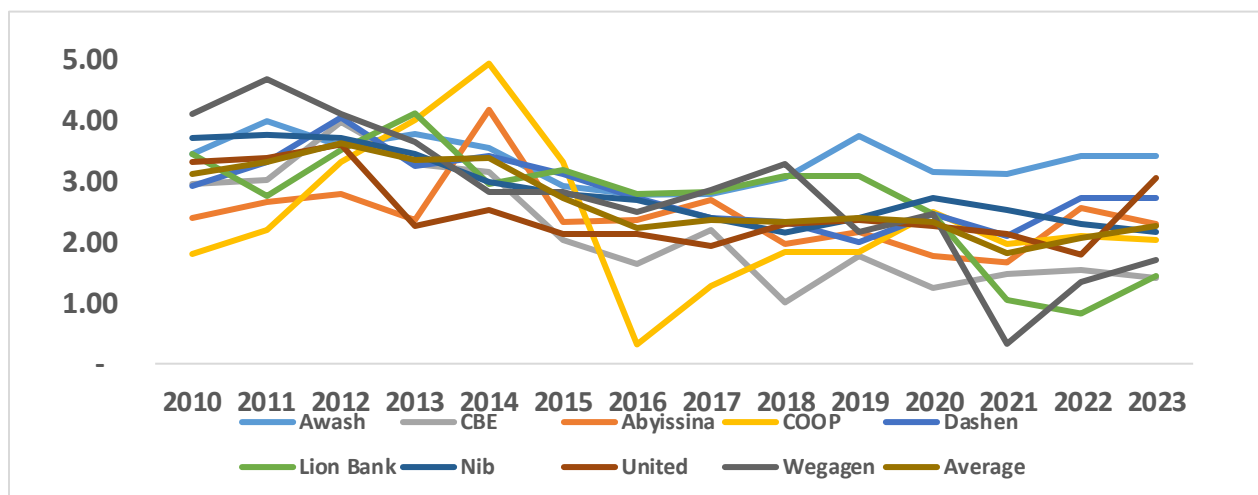
Source; own computation, 2024

4.1.2. The overall performance of the banking industry

During the past fourteen years the performance of the commercial banks has shown a decreasing trend in their profitability (ROA) with some fluctuations that differs with respect to specific banks.

As indicated in Figure 3, the minimum value of ROA (0.32) is registered by Cooperative Bank of Oromia while Wegagen Bank has scored the maximum value(4.68) in 2016 and 2011 respectively. Nevertheless, getting much return on asset may not always send a good message, but it may also result from having a small, inefficient and less competitive market. In the case of Ethiopia Kapur and Gualu (2010) argued that privatization contributes a lot for the profitability of Ethiopian banking industry. On the other side, it could also be argued that their profitability may not fully be attributed to good performance, but Ethiopian banks might get advantage of less competitive nature of the banking market which remains restricted from participation of foreign owned banks.

Figure 3: Commercial Banks Performance Trend



Source; own computation, 2024

4.2. Model Specification

Breush-Pagan test result shows that pooled OLS is appropriate and nullify the importance of using panel effect model for our analysis. As it provides evidence in favor of pooled OLS model because the p-value is larger enough not to reject the null hypothesis even at 1% significance level.

Table 3. Breusch-Pagan Test

The null hypothesis, Ho: No panel Effect			
Test Summary	Chi-Sq. Statistic (χ^2)	Prob.	level of significance
Breusch-Pagan Test	0	1*	5%

Source; own computation, 2024

4.3. Diagnostic Tests of the model

4.3.1. Testing for heteroskedasticity

Table 4 Shows Breusch-Pagan/Cook-Weisberg test for heteroskedasticity. Based on the result shown below both χ^2 and P values fail to reject the null hypothesis even at 10% significance level, this indicates the variance of the errors is constant and it is possible to conclude that there is no problem of heteroskedasticity in the model.

Table 4. Breusch-Pagan / Cook-Weisberg test for group wise heteroskedasticity

The null hypothesis Ho : there is no heteroskedasticity; against				
Test Summary	Chi-Sq. Statistic (χ^2)	Chi-Sq. d.f	Prob.	level of significance
Breusch-Pagan / Cook-Weisberg	0.82	1	0.366 1	5%

Source; own computation, 2024

4.3.2. Testing for Autocorrelation

According to Table 5 the value of P is 0.49 which implies that we failed to reject the null hypothesis. Therefore there is no autocorrelation problem in the model even at 10% significance level.

Table 5. Wooldridge test for autocorrelation

The null hypothesis Ho : no first-order autocorrelation			
Test Summary	F Statistic	Prob.	level of significance
Wooldridge	0.192	0.6725	5%

Source; own computation, 2024

4.3.3. Testing for Multicollinearity

Detail analysis of correlation among explanatory variables was conducted below based on Table 6.

Table 6. Correlation Matrix

Variables	DOP	LIQ	CAD	CRR	MIN	HHI	GDP	INF	REG
DOP	1								
LIQ	- 0.032	1							
CAD	- 0.665	- 0.161	1						
CRR	0.130	0.424	- 0.257	1					
MIN	0.232	0.060	- 0.035	- 0.092	1				
HHI	0.591	0.170	- 0.646	0.341	- 0.322	1			
GDP	- 0.531	- 0.113	0.208	- 0.113	- 0.485	0.043	1		
INF	0.284	0.103	- 0.146	0.191	0.106	- 0.039	- 0.429	1	
REG	- 0.330	- 0.105	0.185	-0.258	- 0.272	0.051	0.601	- 0.466	1

Source; own computation, 2024

The correlation matrix provides insights into the relationships between various economic and financial variables. **DOP** (Deposit) is negatively correlated with **CAD** (Capital Adequacy) at -0.67, suggesting that as deposits increase, Capital Adequacy tends to decrease. **LIQ** (Liquidity) shows very weak correlations with other variables, with a minor negative relationship with **DOP** (-0.03) and a weak positive correlation with **CRR** (Credit Risk, 0.42). **CAD** also exhibits a strong negative correlation with **HHI** (Herfindahl-Hirschman Index) at -0.65, indicating that as Capital Adequacy increases, market concentration decreases. **CRR** has moderate positive correlations with **DOP** (0.13) and **INF** (Inflation, 0.19), while being negatively correlated with **CAD** (-0.26). **MIN** (Management Inefficiency) has only weak relationships with other variables, with the most notable being its negative correlation with **GDP** (-0.49). **GDP** itself is negatively correlated with **DOP** (-0.53) and **HHI** (-0.04), suggesting that as GDP rises, both deposits and market concentration decrease. **INF** (Inflation) shows weak positive correlations with **DOP** (0.28) and **CRR** (0.19) and a significant negative correlation with **GDP** (-0.43), indicating that higher inflation tends to coincide with lower GDP. Lastly, **REG** (Regulation) has moderate negative correlations with **DOP** (-0.33) and **CAD** (-0.19), and a significant positive correlation with **GDP** (0.61),

suggesting that higher levels of regulation are associated with stronger GDP growth. Overall, the matrix reveals a complex set of relationships, with some variables showing stronger associations than others, such as **DOP** and **CAD** or **GDP** and **REG**.

Moreover, as indicated in Table 7 below the variance inflation factor result shows that there is no multicollinearity problem in the model as the VIF value for all variables is less than 10.

Table 7. Variance Inflation Factor Result

Variables	VIF	1/VIF
DOP	4.82	0.21
HHI	4.20	0.24
GDP	2.72	0.37
CAD	2.30	0.43
MIN	1.87	0.54
REG	1.84	0.55
CRR	1.53	0.65
INF	1.47	0.68
LIQ	1.44	0.70
Mean VIF	2.46	

Source; own computation, 2024

4.3.4. Testing for Normality

Jarque-Bera test for normality shows that the p-value (0.262) is greater than 0.05 and hence we fail to reject the null hypothesis of normality as there is no significant evidence to suggest that the data deviate from a normal distribution. Therefore, based on the Jarque-Bera test, the data can be considered to follow a normal distribution. Moreover, Kernel density estimate shows the same result supporting Jarque-Bera test result

Table 8. BJ Normality Test Results

The null hypothesis Ho : The residuals are normally distributed			
Test Summary	Chi-Sq. Statistic (χ^2)	Prob.	level of significance
BJ Normality Test	2.679	0.262	5%

Source; own computation, 2024

4.4. Regression Analysis

4.4.1. Model Summary

As shown in the below table, the overall model is highly significant, with an adjusted R-squared value of 0.82 for the number of predictors used. This suggests that approximately 82% of the variation in ROA is explained by the independent variables included in the model, indicating a strong and accurate fit and it can be used for further analysis.

Table 9. Model Summary

Model	R	R Square	Adjusted R Square
1	0.914	0.836	0.823
Dependent Variable: ROA			
Predictors: DOP,LIQ,CAD,CRR,MIN,HHI,GDP,INF,REG			

Source; own computation, 2024

4.4.2. ANOVA Analysis

As indicated in Table 10, the F-statistic is 65.48, which indicates a strong relationship between the independent variables and the dependent variable. Similarly the P-value ($P=0.0000$) shows that the null hypothesis stating all the coefficients specified in the model are equal to zero can be rejected at all significance level. Therefore, it can be concluded that the model as a whole is statistically significant as there is strong evidence that the independent variables collectively have an impact on the dependent variable.

Table 10. ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig
Regression	75.733	9	8.415	65.48	0.0000
Residual	14.908	116	0.129		
Total	90.640	125	0.725		

Source; own computation, 2024

4.4.3. Regression Result

In this section, a pooled Ordinary Least Squares (OLS) regression model is employed to examine the relationship between several independent variables and the dependent variable, Return on

Assets (ROA). Pooled OLS regression is a common technique used when analysing panel data, assuming that the data across different time periods and cross-sectional units can be treated as a single dataset, without accounting for individual heterogeneity. The objective of this analysis is to identify the key factors that influence the profitability of firms, as measured by ROA, and to estimate the strength and direction of these relationships. The following table presents the regression results, showing the coefficients, standard errors, t-values, p-values, and confidence intervals for each explanatory variable, which will help in understanding how each factor contributes to the variation in ROA.

Table 11. Regression result based on internal and external factors

ROA	Coefficient.	Standard Error	t-value	p-value	[95% Confidence Interval]		Sig
DOP	.233	.051	4.57	0.000	0.132	0.334	***
LIQ	.026	.007	3.97	0.000	0.013	0.039	***
CAD	4.607	1.419	3.25	0.002	1.795	7.418	***
CRR	-10.363	2.418	-4.29	0.000	-15.151	-5.574	***
MIN	-7.009	.372	-18.84	0.000	-7.745	-6.272	***
HHI	-0.0004	0.000	-7.07	0.000	-0.001	0.0003	***
GDP	.061	.031	1.97	0.051	-0.0005	0.123	*
INF	-.006	.004	-1.46	0.148	-0.014	0.002	
REG	.041	.09	0.45	0.650	-0.138	0.22	
Constant	4.2	.758	5.54	0.000	2.699	5.7	***

*** $p < .01$, ** $p < .05$, * $p < .1$

Source; own computation, 2024

The regression analysis, as summarized from Table 11, evaluates the impact of various internal and external factors on the profitability of Ethiopian commercial banks, using Return on Assets (ROA) as the dependent variable. The results highlight that internal variables—management inefficiency, deposit levels, capital adequacy, credit risk, and liquidity—have statistically significant impacts on bank profitability. In contrast, most external variables such as GDP growth, inflation, and regulation, show either weak or no statistical significance, with the notable exception of market concentration (HHI).

Key Internal Determinants of Profitability

Management Inefficiency (MIN)

The variable for management inefficiency enters the model with a statistically significant negative coefficient, showing a strong inverse relationship with ROA. A one-unit increase in inefficiency

reduces profitability by seven units. This means that banks incurring higher operating costs relative to income significantly compromise their profitability. These results are aligned with prior studies by Akshaya (2017), Athanasoglou et al. (2008), and others, reinforcing that cost-effective management practices are essential for improved bank performance.

Bank Deposits

The deposit variable (expressed as the natural log of deposit amounts) has a positive and highly significant relationship with ROA. A 1% increase in deposits corresponds to a 0.23% increase in profitability. This finding emphasizes the critical role of customer deposits as a low-cost source of funds that can be utilized for lending and investments, driving interest income. The result echoes the conclusions of García-Herrero et al. (2009) and Trujillo-Ponce (2013).

Capital Adequacy (CAD)

Capital adequacy, a measure of financial health, also shows a statistically significant and positive effect on ROA. A one-unit rise in the capital-to-asset ratio leads to a 4.6-unit increase in profitability. This underlines the role of strong capital bases in shielding banks from losses and maintaining customer and investor confidence. The results are consistent with studies by Wasiuzzaman and Gunasegavan (2013) and Kosmidou (2008).

Credit Risk

Credit risk, defined as the ratio of loan loss provisions to total loans, negatively impacts profitability. A one-unit increase in credit risk results in a ten-unit decline in ROA. This finding confirms that poor credit quality undermines income generation and increases capital needs. It aligns with the results of Petria et al. (2015) and Ongore & Kussa (2013), who observed similar negative impacts of credit risk on bank performance.

Liquidity (LIQ)

Liquidity demonstrates a positive and statistically significant relationship with profitability (coefficient = 0.026). An increase in liquidity allows banks to manage short-term obligations, respond quickly to investment opportunities, and maintain depositor confidence. This result supports findings from Petria et al. (2015) and contradicts earlier conclusions by Molyneux and Thornton (1992), who noted a negative association.

Key External Determinants of Profitability

Market Concentration (HHI)

The Herfindahl-Hirschman Index (HHI), measuring market concentration, has a statistically significant negative relationship with ROA. A one-unit increase in HHI leads to a 0.0004-unit drop in profitability. This implies that higher market concentration—fewer players dominating the

market—reduces competitive pressure and potentially diminishes efficiency. This supports Park and Weber (2006) while contradicting findings by Almeida & Divino (2015) and Molyneux and Thornton (1992), who found positive correlations.

Economic Growth (GDP)

GDP shows a positive but statistically insignificant effect on profitability, suggesting that economic growth, while generally beneficial to financial systems, does not significantly influence ROA in the Ethiopian banking context. This aligns with Naceur (2003), who also found no significant link between GDP and profitability.

Inflation

Inflation is negatively associated with ROA, as higher input costs often reduce profit margins when banks are unable to pass costs onto customers. However, the relationship is not statistically significant ($p = 0.148$), indicating uncertainty about the effect of inflation. Similar results were reported by Akbaş (2012) and Melaku (2016), though some studies suggest banks can benefit from anticipated inflation.

Financial Regulation

Regulatory factors, such as minimum capital requirements that act as barriers to new entrants, show a weak positive relationship with profitability. However, the effect is statistically insignificant. This suggests that while regulation may reduce competition and enhance existing banks' market power, it has not translated into significant profitability gains. This finding is supported by Mintesnot and Semeneh (2018).

Chapter Five

Conclusion and Recommendations

5.1. Conclusion

This study investigates the determinants of profitability among Ethiopian commercial banks from 2010 to 2023, focusing on both internal (bank-specific) and external (macroeconomic) factors. Drawing on existing literature and using a pooled Ordinary Least Squares (OLS) regression model, the analysis identifies how variables such as deposits, capital adequacy, credit risk, liquidity, and management inefficiency affect profitability, measured by Return on Assets (ROA). Diagnostic tests confirmed the model's validity, showing no issues with heteroskedasticity, autocorrelation, multicollinearity, or non-normality. The regression model explained 82% of the variation in ROA, with key findings indicating that deposits and capital adequacy significantly boost profitability,

while credit risk and management inefficiency reduce it. Liquidity also positively influences ROA, whereas market concentration negatively impacts it. In contrast, macroeconomic indicators like GDP and inflation, along with regulatory measures, showed no statistically significant effect on profitability. Overall, the study highlights that internal factors play a much more critical role than external conditions in shaping the performance of Ethiopian banks. Several economic and regulatory factors were also considered. While GDP showed a positive but statistically insignificant relationship with ROA, inflation had a negative but also insignificant impact. Regulation, specifically minimum mandatory bond security purchase, was positively associated with ROA but lacked statistical significance.

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