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# Impact of board size on financial performance of commercial banks in Ethiopia

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**ABSTRACT:** The main purpose of this study is to determine the impact of board size on financial performance of commercial banks in Ethiopia for the period of 2009 to 2018. 12 commercial banks are included in this study among 17 banks in Ethiopia based on their financial report of 10 years. Five banks have not been included in the sample selection due to one bank is development bank and the other four banks are newly established. The data have been collected from National Bank of Ethiopia in relation to bank performance and from selected banks as regards corporate structure. To analyze data STATA 12 and SPSS 21 software are used. Software Both multiple regression and correlation used to determine the relationship between the number of board members and financial performance. The researcher concludes that there is negative and insignificant relationship between dependent and independent variables analyzed in the research of commercial banks in Ethiopia.

Keywords: Bank, financial performance & Corporate Governance.

### I. INTRODUCTION

Corporate governance is termed as the set of processes, customs, policies, laws and institutions that affect the way a company is directed, administered or controlled. Corporate governance is more worried about the relationship among management, board of directors, controlling shareholders, monitoring shareholders and others. By increasing the overall performance of companies and increasing their access to external capital, good corporate governance contributes toward economic stability which untimely reduces the susceptibility of the financial crises by reducing cost of capital and transaction cost. Corporate governance plays a most important role in macroeconomic constancy; offer the proper atmosphere for economic enlargement as well as society well-being, therefore international institutions give major thought and concerns to this matter at the level of macro and micro aspects.

Corporate governance is affected by the relationships among participants in the governance system. These participants are board size, gender diversity, chief executive officers' duality, board composition, and educational qualification of board members. In theory, the board is responsible to the shareholders and is supposed to govern a company's management. The role of the board of directors has increasingly come under scrutiny in the light of corporate scandals such as those at Enron, WorldCom, and HealthSouth.

#### **1.2 Statement of the problem**

The board of directors have an imperative task in lessen the agency costs that arise from the separation of ownership and decision control in corporations (Fekadu, 2015). Board size can be defined as the number of directors sitting on the board. A firm with large board size has peoples with diversified management skill but on other hand, it may cause for communication and decision making. (Hailab Getachew, 2014). Homaidi, Almaqtari, and Ahmad (2019) reviles on their finding that board size have significant impact on return on asset (ROA) Belkhir, (2008) concluded that there is no evidence of negative association between board size and performance. Katuse (2014) investigated that the larger board size affects banks financial performance negatively and statistically significant. Vemula (2017) observed that board size, board meeting, and non-executive directors are not having significant association with the profitability. Asefa Gerbi & Migibaru Misikir (2013) concluded that board size, board independence, audit committee and board ownership are significantly correlated to operating profit margin. Mamatzakis & Bermpei (2012) observed that there is a negative relationship between the board size and performance. Doğan & Yildiz (2013) highlighted that there is a negative

and statistically significant relationship between the number of board members with the rate of return on asset (ROA) and with return on equity (ROE). Based on the above it is clear that there is no uniformity on the findings. The purpose of the present research is to investigate the effect of board size on financial performance of commercial banks in Ethiopia which has lack of consistency on the basis of previously conducted researches. Furthermore, this research investigates to answer the following basic questions:

- 1. To what extent does board size affect financial performance of commercial banks in Ethiopia?
- 2. Is there any relationship between board size and return on asset?
- 3. Is there any relationship between board size and return on equity (ROE)?

### **1.3 Research Hypotheses:**

Board size is the number of directors in the board. It is a vital factor to determine the effectiveness of financial performance of banks. The first one is board size have significant and positive impact on ROA (Homaidi, Almaqtari, & Ahmad, 2019). The second is that there is a negative relationship between the board size and performance (Mamatzakis & Bermpei,2012) and there is negative and statistically significant relationship between the number of board members with the rate of return on asset (ROA) and with return on equity (ROE) (Doğan & Yildiz, 2013). The third thought is board size, board meeting, and non-executive directors are significant association with the profitability (Vemula, 2017). On the basis of the above mentioned research question, following hypotheses have been formulated and tested.

H1: There is positive relationship between board size and return on asset (ROA)

H2: There is positive relationship between board size and return on equity (ROE)

## II. REVIEW OF RELATED LITERATURE

This section of literature review concentrates on previous studies that have been conducted in relation to the area of study. Different researchers have studied the effect of corporate governance on banks financial performance from different perspectives in different environments using a number of variables of interest and mixed results are concluded. The empirical studies are summarized below in this section.

#### 2.1 Structure of the board of director

There is no clear cut formula for defining the number of board directors a company should have though in some explanation company law state a minimum and maximum number of board directors for different types of company. According to the Corporate Library's study, the average board size is 9.2 members, and most boards range from 3 to 31 members. Some analysts think the ideal size is seven. In addition, two critical board committees must be made up of independent members: A. group of governance researchers from GMI Ratings performed a study in 2014 for The Wall Street Journal, which supports the notion that smaller boards are more effective than larger boards. For the purpose of defining the size of boards, the study shows that the smallest board directors. Of the companies studied, boards had an average of 11.2 board directors overall. The others, Tesco plc, a large multinational supermarket company, has 13 directors. Swire Pacific Limited, a large Hong Kong conglomerate, has 18 directors. Smaller listed companies generally have fewer directors, typically six to eight persons (OECD, 2004).

#### 2.2 Empirical evidences

Many researchers have found the relationship between board size and financial performance in a different way, Pearce and Zahra (1992); Jensen (1993); Dalton et al., (1999) have found that board size is regarded as an important determinant of effective corporate governance. (Bonn, Yoshikawa, & Phan, 2004) noticed that board size was negatively associated with ROA for Japanese firms. Tomar and Bino (2012) discovered on their study that increase or decrease in firms performance is not because of increase or decrease in board size. Fanta, Kemal, and Waka, (2013) and Ene and Bello,(2016) highlighted that there is a negative relationship between board size and financial firm's performance. The rationale behind this is increase in number of board size cause for poor communication and delay in decision making. Again another researcher DA and L, (2016) ,Kingdom (2016) and Tornyeva (2012) observed that there is a statistically significant positive relationship between board size and return on assets. Large board size could be more efficient if it encompasses people of diverse background.

Wale (2017)concluded that a larger board size and educated board members help to increase sustainability with board education having the largest effect on the financial performance of banks. Staikouras, Staikouras, & Agoraki (2007) reveal that bank profitability is negatively related to the size of the board of directors. According to Banking et al. (2014) the board size and composition as per National Bank of Ethiopia directives a bank/an insurer/a microfinance institution shall have at least nine (seven for MFI) directors; Kingdom (2016) investigated on his finding that board size, board diversity are significantly positively related to

operating performance (ROA). Their findings are contract with the finding of Fanta 2013 which stated that board size is having statistically negative significant effect on banks financial performance. Tomar & Bino (2012) concluded that majority ownership of the institution have the highest performance and that as managers and board members' ownership percentages increase, the bank becomes more efficient and board size has no effect on banks performance. The above finding indicates board size neither positively nor negatively affects the

banks financial performance.

Tornyeva (2012) on his findings reveal that the insurance companies must have the right board size which is highly independent from the management of the company and with the appropriate skills. In terms of corporate governance, both insurance company and banking industry, have similarity because the corporate directives are prepared by National Bank for both as institutions.

Doğan & Yildiz (2013) observed that there is a negative and statistically significant relation between corporate governance and firms performance indicators as Return on Assets (ROA) along with Return on Equity (ROE) and the banks' board of directors' size. The higher the board size leads to lower financial performance and lower board size leads to higher financial performance. But in contrary, there is statistically positive relationship between board size and financial performance of firm's (Fanta 2013) Personal & Archive (2009) investigated that smaller boards are more efficient this finding is contradictor with the other researchers which is board size has positive effect on financial performance (Tomar & Bino, 2012)

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Variable	Notation	Description
Bank performance variables		
Return on Assets	ROA	ratio of net income to total assets
Return on Equity	ROE	ratio of net income to total common stock outstanding
Board structure variables		-
Board size	BS	Total number of inside and outside
		directors on the board.

#### **RESEARCH METHODS AND METHODOLOGY** III.

The methodology of every research work includes the sources of data, methods of collecting data and analysis and interpretation of data. In order to test the hypotheses developed for this research, the quantitative approach with panel data is adopted. It presents the research design, procedures of data collection, the sampling procedure and method of data analysis and the variables measurements.

This study investigates the impact of the number of board members on the bank performance on a sample of the data collected from commercial of Ethiopia over the period of 2009-2018. Although the total number of the banks in Ethiopia are 17, five of them have not been included in the analysis due to one bank is development bank and the other four banks are newly established. Therefore, 12 commercial banks are included in this study. This study employed the analysis of multiple regression and correlation. The data collected from National bank of Ethiopia in relation to financial performance and from each selected banks as regards corporate structure. In the present study, accounting-based financial performance indicators are used as dependent variables. There are two diverse performance pointers that are used as dependent variables in the academic studies to gauge the impact of banks' board of director size on financial performance. The first is ROE and ROA, accounting-based financial performance indicators. And the second one is the Tobin's Q performance one of the market-based indicators. In this study, the researcher uses ROA and ROE as the accounting-based performance indicators. Return on assets (ROA) is expressed as bank's net income divided by the book value of total assets; and return on equity (ROE) is defined as bank's net income divided by the book of value of equity capital. Board of Directors' Size (DBORD) is the major independent variable extensively used in empirical analyses. This variable indicates the number of banks' board members.

#### **Research model**

ROAit =  $\alpha_0 + \alpha 1 BS + e$ ROEit =  $\alpha_0 + \alpha 1$  BS + e

Where.

ROA stand for return on asset, proxy for bank profitability

ROE stands for return on equity, proxy for banks profitability.

BS stands for board size, the number of board members in the bank.

IV.

e stands for error term

### **ANALYSIS OF DATA**

Descriptive Statistics for the Variables

2020

	Return on asset	Return on Equity	Board size
N Valid	120	120	120
Mean	3.051	23.496	9.808
Median	3.00	22.50	10.10
Std. Deviation	.936	8.321	1.652
Minimum	0.00	0.10	6.00
Maximum	6.70	47.25	13

#### Table 4.1 Descriptive Statistics

Source: spss output

Table 4.1 presents the results of descriptive statistics of the independent and dependent variables for the period 2009 to 2018. Table shows that on an average, banks are achieved return on asset of 3.05% with the maximum percent of 6.70 and minimum percent of 0.00 respectively. The mean value of the return on equity is 23.50%, maximum of 47.25 % and minimum is 10%. The board size of the companies on an average is approximately 10.

#### 4.2 Regression analysis

ROA	Coef.	Std. Err.	t	P> z
BOS	1803119	0521996	-3.45	0.001
_cons	4.837032	.5359657	9.02	0.000
ROE	Coef.	Std. Err	Z	P> z
BOS	-1.167404	.4470945	-2.61	0.009
_cons	35.04153	4.59874	7.62	0.000

Source: Stata output

The regression results of the relationship between board size and financial performance of the banks are shown in table 4.2 above. Regression Results of Board size versus ROA according to fixed effect model are shown in table. The value of overall  $R^2$  is 0.1346<sup>-</sup> This implies that there is a variation of 13.46 % of financial performance (ROA) of commercial banks of Ethiopia. Further, the p-value 0.001 and 0.009 of ROA and ROE which is less than 0.05 indicated that the model is statistically significant in explaining the impact of the independent variables on financial performance (ROA) of commercial banks in Ethiopia.

From the data in Table, the established regression equation is

ROA = 4.837032 -0.1803119 BOS

 $ROE_{\ =}\ 35.04153 - 1.167404\ BOS$ 

The above regression model concludes that financial performance of commercial banks i.e ROA would be at 4.8370 holding board size constant at zero. A one percent increase in board size would decrease ROA of commercial banks in Ethiopia by 0.1803 which is insignificant. ROE would be at 35.0415 holding board size constant at zero. A one percent increase in board size would be decrease in ROE of commercial banks in Ethiopia by 1.1674 (ROE)

#### **4.3 Correlation Analysis**

Correlation analysis is performed to decide survival and power of association between the dependent and independent variables used in the study. Correlation between two variables is measured using the correlation coefficient, denoted as 'r', and ranges from -1 to +1, where -1 point out a strong negative correlation, +1 designates a strong positive correlation and zero (0) indicates lack of correlation (Kothari, 2011). Considering that the research is modeled to control for the impact of board size on financial performance, partial correlation is done to measure the correlation between independent and dependent variables instead of the full Pearson product moment correlation.

Table 4.3 correlation results.					
	ROA	ROE	BOS		
ROA	1.000				
ROE	0.615	1.000			
BOS	- 0.317	- 0 .366	1.000		

The partial correlation result shows a negative relationship between the number of board members of commercial banks and financial performance measured by ROA and ROE at the 95% level of confidence. The present study agree with the former researchers Doğan & Yildiz, (2013) but, contradicted with the analysis of Fanta (2013) research conducted in Ethiopia, which says that board size is positively affect financial performance

#### V. CONCLUSIONS

The findings of the study show that there is negative correlation between board size and the financial performance of commercial banks. This is supported by the evidence of a statistically insignificant relationship between the two. While boards of directors are necessary for corporate governance, enhancing the number of board is not recommended as it can turn down the financial performance of the banks. As indicated in table 4.1, the maximum board member is 13 and the minimum is 6. The minimum and maximum return on asset is 0.00 and 6.70 respectively and minimum and maximum return on equity is 0.10 and 47.25 respectively. ROA would be at 4.8370 holding board size constant at zero A one percent increase in board size would decrease ROA of commercial banks in Ethiopia by 0.1803. ROE would be at 35.0415 holding board size constant at zero. A one percent increase in board size constant at zero. A one percent increase in board size constant at zero.

#### VI. RECOMMENDATIONS

The findings of the study point to an insignificant negative relationship between board size and financial performance commercial banks in Ethiopia. The banks should consider the number of board of directors while assigning board members. The National bank of Ethiopia should revise the corporate governance in terms of size of board members.

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