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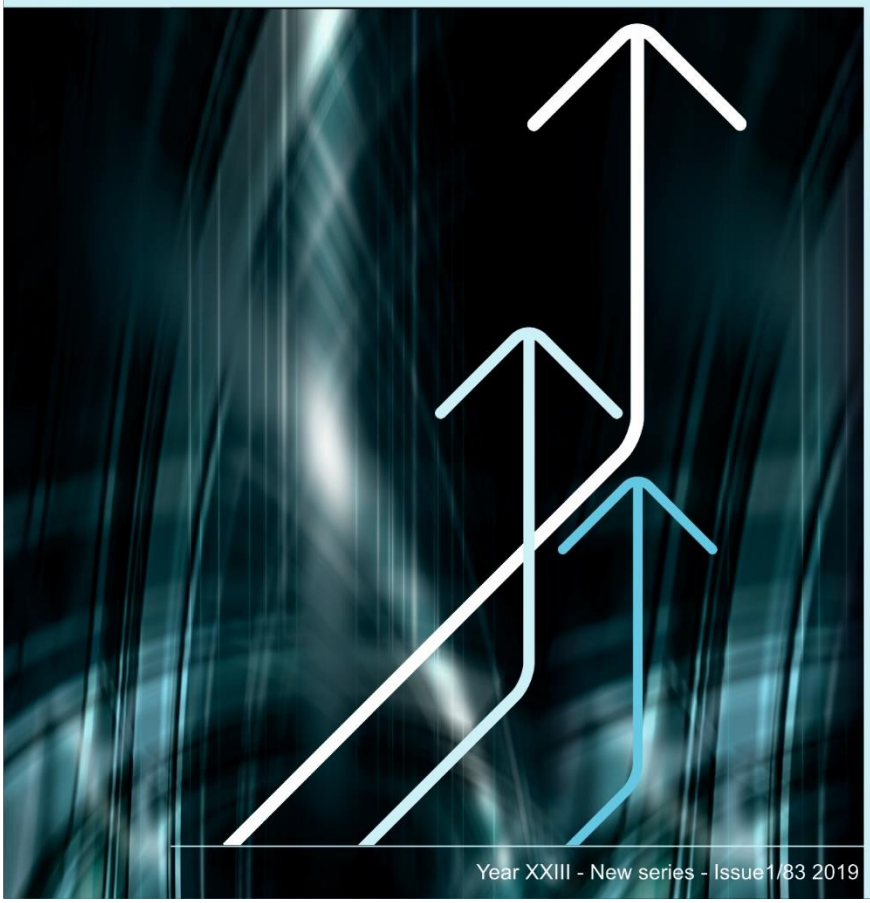

Year XXIII - New series - Issue 1/83 2019

“VICTOR SLĂVESCU” CENTRE FOR FINANCIAL
AND MONETARY RESEARCH

FINANCIAL STUDIES

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Quarterly journal of financial and monetary studies

EDITORIAL BOARD

Issue 1/2019 (83,Year XXIII)
ISSN 2066 - 6071
ISSN-L 2066 - 6071

Contents

THE IMPACT OF CORPORATE GOVERNANCE MECHANISMS ON THE PERFORMANCE OF COMMERCIAL BANKS: THE CASE OF PRIVATE BANKS IN ETHIOPIA

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Abstract

This study seeks to see the level of impacts that different corporate governance mechanisms has on financial performance of banks in Ethiopia. Explanatory research design was used in establishing the casual effect relationship between corporate governance variables and banks financial performance measures. Secondary data were collected from the banks' annual reports and the NBE. The study utilized panel data analysis methodology in drawing conclusion about the study covering ten-year period from 2006-2015. The fixed effect model was applied to allow heterogeneity among 7 banks. The regression results show that presence of female directors and industry specific experience of directors has positive and significant effects on financial performance of private banks while number of board committees has significant negative effects on bank performance. The study results implied that stakeholders should give prior considerations to the presence of female directors and industry specific experience of directors when they set governance policy for industry in general and for the bank in particular.

Keywords: Agency theory, banks, financial performance

JEL Classification: G34

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1. Background of the study

Corporate governance has become an issue of global significance than ever. This could be the result of several attributes. Such as recognizing corporate governance as an essential element in strengthening long-term economic performance of countries and corporations (Ibrahim et al., 2010); the growing concern over corporate governance due to the increase of reported cases of frauds (Enobakhare, 2010); corporate failure as witnessed in the collapse of Enron in 2001 and WorldCom in 2002 (Inyang, 2009); and the global financial crisis of 2007/8 emanated from the poor governance practices in the financial sector.

Very recent definition given by Strine (2010) entails that corporate governance is about putting in place the structure, processes and mechanisms that ensure the firm is directed and managed in a way that enhances long-term shareholder value through accountability of managers which will then enhance firm performance. Hence, corporate governance has become an important factor in managing organizations in the current global and complex environment.

Many researchers have studied the impact of corporate governance mechanisms on firms' performance from different perspectives in different environments using a number of variables of interest (Moustafa, 2007; Ibrahim et al., 2010; Khatab et al., 2011; Sanda et al., 2005). The researchers found mixed results on the relationship between corporate governance mechanisms and firms' performance.

In addition to its effect on firm performance, corporate governance can be related with the agent and principal relationship between shareholders and mangers. Enhancing corporate governance is the primary approach to reducing agency problem. The emergence and growth of private corporations in Ethiopia necessitate improvement in the corporate governance mechanisms for the fact that empirical evidences (Fikadu, 2010; Tewodros, 2011; Tura, 2012) showed the existence of agency problem which may deprave the interest of shareholders.

With regard to banks, Banking Business Proclamation [Negarit Gazeta Proclamation No.592/2008] and the National Bank of Ethiopia (NBE, 2009) directives prohibit foreign nationals or organizations fully or partially owned by foreign nationals to open banks or branch offices or subsidiaries of foreign banks in Ethiopia or acquire the shares of

Ethiopian banks and chief executive officer from concurrently holding the chief executive officer position and membership in the board of directors. NBE Directives No. SBB/49/2011 prohibits employee of the banks to serve as a member in the board of directors of any bank. The directives target at avoiding conflict of interest, and applying appropriate chain of command, and checks and balances. Such prohibition can indeed help ensure the independence of the board from the influence of the bank executives. On the other hand, the Commercial Code of Ethiopia 1960 article 374(1) stipulates that only members of a company may manage the company. This provision excludes external directors from engaging in the governance of share companies to which they are not shareholders, and concerning board size, the Commercial Code provides under Art 347 (2) that a company must have at least five directors but not more than twelve.

So far, limited empirical researches (Ferede, 2012; Fanta el al., 2013) have been conducted in Ethiopian context, but the corporate governance variables are either limited in scope or some of them are inappropriate and their existence cannot be differently observed across the banks or over the years covered for the study. Given this lack of empirical studies, this study fills the gap and provides empirical evidence on the impact of corporate governance mechanisms on financial performance of commercial banks taking into consideration the variables related to the realities of the private commercial banks' governance mechanism in Ethiopia.

Moreover, Ethiopia's corporate governance landscapes are embedded in a setting that differs from a western context in several ways (Dessalegn & Mengistu, 2011). Ethiopian banks' corporate governance is characterized by the absence of organized share market, and the country has different regulations, practices and economic features. As a result, there is a need to conduct a separate study.

2. Literature Review

This section of literature review concentrates on previous studies that have been conducted in relation to this study. There were mixed results concluded by previous studies pertaining to the relationship between corporate governance mechanisms and firms' financial performance.

Aljifri and Moustafa (2007) provided evidence on the impact of corporate governance mechanisms on firms' performance using 51 United Arab Emirates listed firms by using both accounting and market data for the year 2004. They have employed cross-sectional regression analysis to test whether the selected corporate governance variables have an impact on firms' performance or not after controlling firm size. The results of the study showed that the debt ratio and the payout dividends ratio have a significant impact on the firm performance (Tobin's Q); whereas the board and firm sizes have insignificant effect on firms' performance.

Babatunde and Olaniran (2009) analyse the effects of internal and external governance mechanism on performance of corporate firms in Nigeria. In the study panel data regression analysis was used with a sample of 62 firms listed on the Nigerian Stock Exchange for a period of five years from 2002 to 2006. The researchers found a positive and significant relationship between board size and leverage and the dependent variable Tobin's Q. When the return on asset was used as the dependent variable significant positive relationship of board size and leverage with return on asset was found. However, there was a negative relationship between, and firm size and the return on asset.

Adusei (2011) investigated the relationship between board structure and bank performance with panel data from the banking industry in Ghana by implementing pooled ordinary least square estimation method of regression. A total sample of 17 out of 26 universal banks was used in the study. The researcher used return on asset and cost income ratio as dependent variable and board size as independent variable. The researcher incorporated bank age, bank size, funds, and ownership structure and listing status as a control variable. The study found that as the size of bank's board of directors' decreases, its profitability increases. No significant relationship between the size of a bank and its financial performance has been found. He recommended that banks seeking some improvement in their performance should constitute small sized board. Fanta, Kemal and Waka (2013) empirically assessed the relationship between selected internal and external corporate governance mechanisms, and bank performance as measured by ROE and ROA. The study used structured review of documents, and commercial banks financial data were collected covering a period 2005 to 2011. The findings indicated that board size and existence of audit committee in the board had

statistically significant negative effect on bank performance, whereas bank size had statistically significant positive effect on bank performance. Similarly, capital adequacy ratio, as a measure of external corporate governance mechanism, had statistically significant positive effect on bank performance.

Shungu, et al., (2014) investigated the impact of corporate governance on the performance of commercial banks in Zimbabwe. Using data gathered from 2009-2012, for a sample of five commercial banks, it applies multi-regression model to assess the causal relationship between corporate governance measures (board size, internal board committees and board diversity) and bank performance. The results indicate unidirectional causal relationship from corporate governance to bank performance. In addition, there a positive relationship between board diversity and commercial bank performance, although a negative relationship appears between board size, board committees and bank performance. They concluded that in order to improve performance in commercial banks good corporate governance practices must implemented.

3. Research Design

The primary aim of this study is to examine the impact of corporate governance mechanisms on firm's financial performance. To achieve this objective, explanatory type of research design with a mixed approach, more of quantitative, is employed. According to Marczyk et al., (2005), the explanatory type of research design helps to identify and evaluate the causal relationships between the different variables under consideration. A panel data study design which combines the attributes of cross sectional (inter-firm) and time series data (inter-period) is used. The advantage of panel data analysis is that more reliable estimates of the parameters in the model can be obtained (Gujarati, 2004).

3.1. Source and Type of Data

The two data types are primary and secondary. Primary data are obtained by self-administered questionnaires to the sampled private commercial banks. Secondary data are obtained from the banks published annual reports and the National Bank of Ethiopia spanning over ten years.

3.2. Model Specification and Description of Study Variables

In this study, the variables are selected based on alternative theories and previous empirical studies related to corporate governance and firm performance.

Dependent Variables

In this study, the dependent variables are variables that are used to measure the financial performance of sample private commercial banks. To measure the financial performance of banks Tobin's Q and other market-based measures have been used by many researchers. However, in Ethiopia there is no secondary market so that it is not possible to use Tobin's Q as well as other market-based measures.

1. Return on asset (ROA) - measures the overall efficiency of management. It gives an idea as to how efficient management is at using its assets to generate profits.

$$ROA = \frac{Profit\ After\ Tax}{Total\ Asset}$$

2. Return on equity (ROE) - measures a firm's financial performance by revealing how much profit a company generates with the money shareholders have invested. It shows how well the shareholders' funds are managed and used to generate return.

$$ROA = \frac{Profit\ After\ Tax}{Total\ Equity}$$

3. Earnings per share (EPS) – the rate of earning per share is the return per share computed on the basis of the net profit after tax but before legal reserve divided by the weighted average number of shares held during the year. Serve as an indicator of the bank's profitability. Earnings per share show how profitable a bank is on a shareholder perspective.

$$EPS = \frac{Profit\ After\ Tax\ but\ Before\ Legal\ Reserve}{Weighted\ Average\ Number\ of\ Outstanding\ Common\ Shares}$$

Independent Variables

In this study, the independent variables are variables used as a determinant of corporate governance of the private commercial banks. The independent variables of the study are bored size, board

gender diversity, number of board committees, board members industry specific experience, and frequency of board meetings.

Control Variables

In this study, four bank specific control variables are included to account their potential influence on banks' financial performance in order to know effect of the selected explanatory variables on bank financial performance. The selected control variables are bank size, bank leverage, bank age, and introduction of NBE bills. The control variables were selected based on previous studies and the existing situations.

Model Specification

To estimate the impact of corporate governance mechanisms on the financial performance of sample commercial banks in Ethiopia, the following general empirical research model is developed.

$$Y_{it} = \beta_0 + \sum \beta_K X_{it} + \varepsilon_{it}$$

Where:

Y_{it} - the dependent variables (ROA, ROE, and EPS) of bank *i* for time period *t*

β_0 - the intercept

β_K - the coefficients of the X_{it} variables

X_{it} - the explanatory variables (bank size, female director, board committee, directors' experience, board meeting, bank size, bank leverage, and bank age) of bank *i* for time period *t*

ε_{it} - the error term

The above general empirical research model is changed into the specific model of the study to find out the impact of corporate governance mechanisms on firms' financial performance as follows:

$$ROA_{it} = \beta_0 + \beta_1(BZ_{it}) + \beta_2(FD_{it}) + \beta_3(BC_{it}) + \beta_4(BEXP_{it}) + \beta_5(BM_{it}) + \beta_6(BS_{it}) + \beta_7(BL_{it}) + \beta_8(BA_{it}) + \beta_9(NBEB_{it}) + \varepsilon_{it} \quad (1)$$

$$ROE_{it} = \beta_0 + \beta_1(BZ_{it}) + \beta_2(FD_{it}) + \beta_3(BC_{it}) + \beta_4(BEXP_{it}) + \beta_5(BM_{it}) + \beta_6(BS_{it}) + \beta_7(BL_{it}) + \beta_8(BA_{it}) + \beta_9(NBEB_{it}) + \varepsilon_{it} \quad (2)$$

$$EPS_{it} = \beta_0 + \beta_1(BZ_{it}) + \beta_2(FD_{it}) + \beta_3(BC_{it}) + \beta_4(BEXP_{it}) + \beta_5(BM_{it}) + \beta_6(BS_{it}) + \beta_7(BL_{it}) + \beta_8(BA_{it}) + \beta_9(NBEB_{it}) + \varepsilon_{it} \quad (3)$$

Where:

i denotes banks ranging from 1 to 7 (cross-sectional dimension)

t denotes years ranging from 2006 to 2015 (time-series dimension)

Dependent Variables

ROA_{it} - Return on Asset for i^{th} bank and time period $_t$
ROE_{it} - Return on Equity for i^{th} bank and time period $_t$
EPS_{it} - Earning per share for i^{th} bank and time period $_t$

Independent variables

BZ_{it} - Board Size for i^{th} bank and time period $_t$
FD_{it} - Female Directors on the board for i^{th} bank and time period $_t$
BC_{it} - Board Committees for i^{th} bank and time period $_t$
$BEXP_{it}$ - Board Members industry specific experience for i^{th} bank and time period $_t$
BM_{it} - Board Meetings for i^{th} bank and time period $_t$

Control variables

BS_{it} - Bank Size for i^{th} bank and time period $_t$
BL_{it} - Banks Leverage for i^{th} bank and time period $_t$
BA_{it} - Bank Age for i^{th} bank and time period $_t$
$NBEB_{it}$ introduction of NBE Bills for i^{th} bank and time period $_t$

4. Results and Discussions

4.1. Descriptive Statistics of Variables

In order to understand the nature of explanatory variables of the models, mean, maximum, minimum and standard deviation are calculated for each one of them. The mean values tell about the average amount of each variable. Standard deviation has been used to analyse the variations of dependent, independent as well as control variables. The average values of return on asset return on equity and earnings per share measure financial performances private banks in this study are 3.10 percent, 24.48 percent and 41.00 birr per share, respectively with a standard deviation of 1.10, 9.19, and 22.37 from the respective average values. The standard deviations of 9.19 and 22.37, implies wide dispersion in the return on equity and earnings per share of the sample banks for the last ten years.

The minimum level of board members experience in financial sector is zero and the maximum is 100 percent. This depicts that at least a bank does not have industry experience. The minimum amount of women board members is zero, which shows that there are still banks that have no female directors in their boardroom. A wide dispersion is observed upon board meeting with a standard deviation of 21.1 with 8 minimum numbers of meetings and 108 meetings maximum.

Control variables, on average for the studied private banks are 8 billion birr of total assets (mean=8,082), 82 percent bank leverage ratio (mean=81.77), and 13 years old bank (mean=12.79), NBEB dummy variable (mean=0.50). Maximum values for these variables are 25 billion of assets, 92 percent leverage ratio, 21 old years of a bank and 1 (dummy) of NBE bills with respective minimum values of birr 224 million assets, 46 percent bank leverage ratio, and 1-year young bank. The corresponding deviations from their respective means are 5,641, 8.32, 4.46 and 0.504, respectively. These suggested that there is no wide dispersion in terms of control variables among the private banks control variables.

Table 1

Descriptive Statistics of the Study Variables

	ROA	ROE	EPS	BZ	FD	BC	BEXP	BM	BS	BL	BA	NBEB
Mean	3.05	24.48	40.93	9.83	0.07	3.60	0.29	29.27	8,083	81.77	12.79	0.50
Maximum	4.90	42.30	100.10	13.00	0.22	6.00	1.00	108	24,76	92.00	21.00	1.00
Minimum	-2.40	-3.60	1.00	7.00	0.00	3.00	0.00	8	224	46.00	1.00	0.00
Std. Dev.	1.10	9.19	22.37	1.72	0.08	0.65	0.30	21.17	5,641	8.32	4.46	0.50
Observations	70	70	70	70	70	70	70	70	70	70	70	70

Source: Own Computation

4.1.1. Regression Results of the Three Models

The results of the three regression models that have been estimated to examine the impact of corporate governance mechanisms on the financial performance of selected private banks are presented below.

As it is summarized in the table below (Table 2), the R^2 for the three models are 69 percent, 70 percent, 82 percent for Model 1 (ROA), Model 2 (ROE) and Model 3 (EPS) models, respectively.

In addition, the F-statistic shows the joint significance of explanatory variables. The F-statistics of the three models (which is the regression mean square divided by the residual mean square) were 7.9, 8.4, and 16.7, respectively, and the null hypotheses of the three models were rejected at 1 percent significance level (i.e. p-value of zero for all the models) suggesting that variations in the dependent variables are adequately explained by the repressors in the model. Therefore, each model explanatory variables are jointly significant. As inferring from the results of R-squared and F-statistics, the implemented models of this research are well fitted that corporate

governance mechanisms have a significant effect on private banks' financial performance.

Table 2

Fixed Effect Regression Results of the Three Models

Model 1: Return on Asset

Method: Panel Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.262750	3.821747	0.068751	0.9454
BZ	-0.222178	0.220020	-1.009807	0.3171
FD	2.006223	1.859208	1.079074	0.2854
BC	-0.678633	0.342781	-1.979787	0.0528
BEXP	2.774013	1.158861	2.393740	0.0202
BM	-0.008963	0.017854	-0.502033	0.6177
BS	-5.59E-05	5.79E-05	-0.965527	0.3386
BL	0.083056	0.018052	4.600967	0.0000
BA	-0.004769	0.111355	-0.042824	0.9660
NBEB	0.913285	0.340201	2.684546	0.0096
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.687504			
Adjusted R-squared	0.600700			
F-statistic	7.920164	Durbin-Watson stat		1.811276
Prob(F-statistic)	0.000000			

Model 2: Return on Equity

Method: Panel Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.647742	31.34644	0.020664	0.9836
BZ	-1.003822	1.804634	-0.556247	0.5803
FD	28.80904	15.24945	1.889185	0.0642
BC	-4.343043	2.811530	-1.544726	0.1283
BEXP	30.78323	9.505124	3.238593	0.0021
BM	0.007528	0.146443	0.051407	0.9592
BS	-0.000948	0.000475	-1.995494	0.0510
BL	0.485297	0.148064	3.277621	0.0018
BA	0.114974	0.913351	0.125881	0.9003
NBEB	9.424492	2.790371	3.377505	0.0014

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.699912		
Adjusted R-squared	0.616554		
F-statistic	8.396462	Durbin-Watson stat	1.591532
Prob(F-statistic)	0.000000		

Model 3: Earnings per Share

Method: Panel Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.07531	58.65828	-0.188811	0.8509
BZ	-2.121230	3.376994	-0.628142	0.5326
FD	42.18789	28.53615	1.478402	0.1451
BC	-0.422771	5.261187	-0.080357	0.9363
BEXP	55.19835	17.78684	3.103325	0.0030
BM	0.224021	0.274037	0.817486	0.4172
BS	-0.001792	0.000889	-2.014720	0.0489
BL	0.570844	0.277070	2.060288	0.0442
BA	0.513300	1.709144	0.300326	0.7651
NBEB	20.42419	5.221593	3.911488	0.0003
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.822657			
Adjusted R-squared	0.773395			
F-statistic	16.69964	Durbin-Watson stat		1.141369
Prob(F-statistic)	0.000000			

Source: Own Computation

*Note: ***, **, * significant at 1%, 5%, and 10% level of significance respectively.*

4.1.2. Link between Corporate Governance Mechanisms and Bank Financial Performance

- **Board Size**

As shown in Table 2, this study found that a board size has statistically insignificant negative beta coefficient of -0.22, -1.00, and -2.12 with p-values of 0.3171, 0.5803, and 0.5326 with return on asset,

return on equity and earnings per share, respectively. Thus, the effect of board size has an adverse effect (though insignificant) on bank performance, suggesting that banks with smaller board size tend to perform stronger compared to banks with larger board size.

This is consistent with findings of (Sanda et al (2005); Bozec, (2005); Cheng et al., (2008); and Guest, (2008); Adusei (2011); Ferede (2012); and Manini and Abdillahi (2015)) who found a statistically insignificant negative relationship between board size and bank performance, though it contradicts with the findings of (Arosa et al., (2010); Haniffa and Hudaib, (2006); and Lehn et al., (2009)) who found significant positive relationship between board size and bank performance.

The outcome of the analysis of both quantitative (though insignificant) and qualitative data indicates that there is a negative relationship between board size and financial performance of banks in Ethiopia which could call the attention of the central bank to rethink about its positive expectation by increasing the board size.

- **Board Gender Composition**

The relationship between percentage of female board directors and ROA, ROE, and EPS are positive with the coefficient of 2.01, 0.29, and 0.42 and p-values of 0.2854, 0.0642, and 0.1451, respectively. Thus, the significant positive coefficient of the percentage of women directors in terms of ROE at 10 percent significant level supports the hypothesis that is percentage of women directors has a positive impact on bank performance, while it has insignificant and positive relations with ROA and EPS.

It is consistent with Erhardt et al. (2003) who found that percentage of female directors and the subsequent conflict that is considered to commonly occur with diverse group dynamics is likely to have a positive impact on the controlling function and could be one of several tools used to minimize potential agency issues.

- **Board Committees**

The relation between number of board committees with ROA, ROE, and EPS is negative with the coefficient of -0.68, -4.34, and -0.42, with the respective p-values of 0.0528, 0.1283, and 0.9363, respectively. It is statistically significant with ROA at 10% significance level, and insignificant with ROE and with EPS. Thus, the number of board committees has significant adverse impact on ROA but insignificant negative effect on ROE and EPS.

This suggests that though its extent varies, an increase in the number of board committees decreases the financial performance of private banks in terms of ROA, ROE and EPS. Therefore, the number of board committees has negative impact on the performance of banks. The result is in contrary with Bussoli (2013) who argued that board committees are yardsticks for better functioning of banks, as the number of board committees has statistically significant positive impact on banks' performance. Thus, it can be inferred, from both quantitative and qualitative results, that the number of board sub-committees have an adverse effect on the financial performance of private banks.

- **Board Members Experience in the Financial Sector**

Board members experience in the financial sector is positively associated with all financial performance proxies i.e. ROA, ROE and EPS with beta coefficients of 2.77, 30.78, and 55.20, respectively. All the beta coefficients are significant at 5 and/or 1 percents significance level with p-values of 0.0202, 0.0021 and 0.0030 in that order. It means the higher the percentages of directors who have earlier working experience in the financial sector, the more positive influence they have on the banks financial performance of private banks in Ethiopia. Therefore, board members industry experience has positive and significant impact on the financial performance of private banks.

- **Frequency of Board Meetings**

The association of frequency of board meetings is negative (coefficient =-0.01) with ROA and positive with both ROE and EPS with respective coefficients of 0.01 and 0.22, respectively. Frequency of board meetings impacts on ROA, ROE and EPS is insignificant with p values of 0.6177, 0.9592, and 0.4172, respectively. This suggests that increase in the number of board meetings per annum leads to an insignificant increase in the financial performance of private banks with regard to ROE and EPS, and to insignificant decrease with regard to ROA. Hence, frequency of board meeting has insignificant impact on the performance of banks but with mixed direction of causal relation with dependent variables.

The insignificant positive relationship between frequency board meeting and ROE and EPS implies that increasing meeting frequency could slightly improve the financial performance of private banks. The result is consistent with previous studies such as (Bathula (2008); Ntim and Osei, 2011) in a way that the frequency of board meetings is a measure of board activities and effectiveness of its monitoring ability.

Private commercial banks have been conducting 29 average board meetings per annum (as per descriptive statistics – Table 1). While National Bank of Ethiopia which requires frequency of board meeting to at least once in a month. Thus, private banks are conducting board meetings more than twice of the regulatory requirement.

4.1.3 Link between Control Variables and Bank Financial Performance

- **Bank Size**

Size of private banks (BS) as measured by size of total asset has a negative association with all bank performance proxies (ROA, ROE, and EPS). It has significant and negative association with ROE and EPS with negative coefficients-0.00 and -0.00 with respective p-values of 0.0510 and 0.0489, at 10 percent and 5 percent significance level, respectively. The regression result indicates that bank size has statistically insignificant and negative relationships with ROA with a coefficient of -5.59 and p value of 0.3386.

The regression result on bank size is consistent with pervious empirical studies (Sanda el al (2005), Babatunde and Olaniran (2009), Amran (2011), Al-Manaseer el al., (2012), and Manmeet (2014) who concluded that firm size negatively influences banks financial performance. Nevertheless, it contradicts with Fanta el al (2013) who found significant positive relationship with firm performance.

- **Bank Leverage**

The regression results show that bank leverage (BL) has significant and positive influence on bank performance as measured by return on asset, return on equity, and earnings per share. The statistical regression result with ROA, ROE, and EPS is significant and positive with coefficients of 0.06, 0.49, and 0.57 with respective p-values of 0.0000, 0.0018, and 0.0442, at 1 percent and/or 5 percent significant levels.

The result indicates that banks with higher levels of debt as a percentage of total assets perform better than those having lower percentage of debt.

- **Bank Age**

The regression results show that bank age (BA) has insignificant negative causal relationship with ROA and insignificant positive relationships with ROE and EPS. Bank age has insignificant influence on bank performance as measured by return on asset, return on equity and earnings per share with coefficients of -0.00, 0.12, and

0.51 with respective p-values of 0.9660, 0.9003, and 0.7651, respectively. This indicates that bank age (bank years in business in the industry) has showed mixed and insignificant impact on private banks financial performance. Its association varies among independent variables as it reveals both negative and positive relationships with bank performance indicators. The result is similar with Bathula (2008) who concluded that firm age does not have significant influence on the performance of firms.

- **Introduction of NBE- Bills (NBEB)**

The regression results show that introduction of NBE bills (NBEB) has positive and significant causal relationship with all dependent variables. The NBEB has significant influence over banks performance as measured by ROA, ROE and EPS with coefficients of 0.91, 9.43, and 20.42 with respective p-values of 0.0096, 0.0014, and 0.0003. All are significant at 1 percent significance level. The result indicates that the introduction of NBE bills in the study period has significant positive impact on banks financial performance.

5. Conclusion

This study examined the impact of corporate governance on banks' financial performance by taking evidence from selected private banks in Ethiopia. As the study found, Board size needs to be optimal enough with better industry specific experienced directors to monitor executives and improve financial performance of private banks. Thus, the National Bank of Ethiopia needs to reconsider or give the freedom for individual banks to decide their own optimal level of their board size.

On the other hand, Private commercial banks need to include experienced female directors to enhance gender balance and to attract female clients of the bank as researchers found boards of banks are dominated by males. Moreover, the present study found that meeting frequency has insignificant negative impact on the financial performance of banks. Banks' board of directors on average has been conducting 29 meetings per year more than twice of the regulatory requirement (i.e. at least 12 per year) that resulted inefficiencies and may be duplications of roles and responsibilities with the roles of bank executives. Hence, it's better for the banks' board of directors to limit frequency of board meetings to an optimum level to generate superior financial performance. In addition to that, National Bank of Ethiopia needs to revisit its corporate governance directives for banks

especially in the area determination of proper board size and optimal level of frequency of board meeting of private banks. Finally, this study implies that the National Bank of Ethiopia needs to revise some its corporate governance policy in a way it improves the financial performance of Ethiopian Commercial Banking industry by considering factors which are significant under the current study.

Reference

1. Adusei, M. (2011). ”Board structure and bank performance in Ghana”. *Journal of Money, Investment and Banking*, 19, pp. 72-84.
2. Aljifri, K. and Moustafa, M. (2007). ”The Impact of Corporate Governance Mechanisms on the Performance of UAE Firms: An Empirical Analysis”. *Journal of Economic and Administrative Sciences*, 23 (2), pp. 71-93.
3. Al-Manaseer, M., Al-Hindawi, R., Al-Dahiyat, M., and Sartawi, I. (2012). ”The Impact of Corporate Governance on the Performance of Jordanian Banks”. *European Journal of Scientific Research*, 67(3), pp. 349-359.
4. Amran, N. (2011). ”Corporate Governance Mechanisms and Company Performance: Evidence from Malaysian Companies”. *International Review of Business Research Papers*,7(6), pp. 101-114.
5. Arosa, B., Iturralde, T., and Maseda, A. (2010). ”Ownership Structure and Firm Performance in Non-Listed Firms: Evidence from Spain”. *Journal of Family Business Strategy, 1*(2), pp. 88-96.
6. Babatunde, M. and Olaniran, O. (2009). ”The effects of internal and external mechanism on governance and performance of corporate firms in Nigeria”. *Journal of Corporate Ownership and Control*, 7(2), pp. 330-344.
7. Bathula, H. (2008). ”Board Characteristics and Firm Performance: Evidence from New Zealand”. PhD Dissertation, AUT University.

8. Bozec, R. (2005). ”Boards of Directors, Market Discipline and Firm Performance”. *Journal of Business Finance and Accounting, 32*(9-10), pp. 1921-1960.
9. Bussoli, C. (2013). ”Corporate governance and bank performance in Italy”. In: Carretta, A and Mattarocci, G. (eds), Financial Systems in Troubled Waters: Information, Strategies, and Governance to Enhance Performances in Risky Times, Abingdon: Routledge.
10. Cheng, S., Evans III, J., and Nagarajan, N. (2008). ”Board Size and Firm Performance: The Moderating Effects of the Market for Corporate Control”. *Review of Quantitative Finance and Accounting*, 31(2), pp. 121-145.
11. Enobakhare, A. (2010). ”Corporate governance and bank performance in Nigeria”. Master’s Thesis. Stellenbosch: University of Stellenbosch.
12. Erhardt, N. L., Werbel, J.D., and Shrader, C.B., (2003). ”Board of Director Diversity and Firm Financial Performance”. *Corporate Governance: An International Review*, 11(2), April, pp. 102-111.
13. Fanta, B. Kemal, S. and Waka, K. (2013). ”Corporate governance and impact on bank performance”. *Journal of Finance and Accounting* 1(1), pp. 19-26.
14. Fekadu G. (2010), ”Emerging Separation of Ownership and Control in Ethiopian Share Companies: Legal and Policy Implications”. *Mizan Law Review* 4(1), pp. 4.
15. Ferede, Y. (2012). ”The Impact of Corporate Governance Mechanisms on Firm's financial performance: Evidence from Commercial Banks in Ethiopia”. *Unpublished Master’s Thesis,* Addis Ababa University.
16. Guest, P. (2008). ”The Determinants of Board Size and Composition: Evidence from the UK”. *Journal of Corporate Finance,* 14(1), pp. 51-72.
17. Gujarati, D. (2004). ”Basic econometrics” (4thed.). New York: McGraw-Hill.

18. Haniffa, R. and Hudaib, M. (2006). ”Corporate Governance Structure and Performance of Malaysian Listed Companies”. *Journal of Business Finance and Accounting*, 33(7-8), pp. 1034-1062.

19. Ibrahim, Q., Rehman, R. and Raoof A. (2010). ”Role of corporate governance in firm performance: A comparative study between chemical and pharmaceutical sector in Pakistan”. *International Research Journal of Finance and Economics*, 50, pp. 8-16.

20. Inyang, B. (2009). ”Nurturing corporate governance system: The Emerging Trends in Nigeria”. *Journal of Business Systems, Governance and Ethics*, 4(2), January, pp.1-14.

21. Khatab, H., Masood, M., Zaman, K., Saleem, S. and Saeed, B. (2011). ”Corporate Governance and Firm Performance: A Case study of Karachi Stock Market”. *International Journal of Trade, Economics and Finance*, 2(1), February, pp. 39-43.

22. Lehn, K. M., Patro, S. and Zhao, M. (2009), ”Determinants of the Size and Composition of US Corporate Boards: 1935-2000”. *Financial Management*, 38(4), 25 November, pp. 747–780.

23. Manini, M, and Abdillahi, U. (2015). ”Corporate Governance Mechanisms and Financial Performance of Commercial Banks in Kenya”, *IOSR Journal of Business and Management,* 17(3), March, pp. 25-40.

24. Manmeet K. (2014). ”The Impact of Corporate Governance Mechanisms on Public Bank’s Financial Performance in India”. Research Scholar. *Faculty of Management Studies, University of Delhi. Midas Touch International Journal of Commerce, Management and Technology*, 2(3).

25. Marczyk, D., DeMatteo, D. and Festinger, D. (2005). ”Essentials of research design and methodology”. New Jersey: John Wiley and Sons, Inc.

26. National Bank of Ethiopia [NBE] (2009). ”Limits on board remuneration and number of employees who sit on a bank board directives No.SBB/49/2011”. Addis Ababa: NBE.

27. Negarit Gazeta proclamation No.592/2008. A proclamation to provide for Banking Business. Addis Ababa.

28. Ntim, C, and Oseit, K. (2011). ”Impact of Corporate Board Meetings on Corporate Performance in South Africa”. *African Review of Economics and Finance*, 2(2), June, pp. 83-103.

29. Sanda, A., Mikailu, A., and Garba, T. (2005). ”Corporate governance and firm financial performances in Nigeria”. *African Econometrics Research Conference (AERC) Research Paper*, 149, March, pp. 1-16.

30. Shungu, p., Ngirande, H., Ndlovu, G., (2014). ”Impact of Corporate Governance on the Performance of Commercial Banks in Zimbabwe”*. Mediterranean Journal of Social Sciences*, 5(15), July, pp. 93-105.

31. Strine L., E., Jr. (2010). ”One Fundamental Corporate Governance Question We Face: Can Corporations Be Managed for the Long Term Unless Their Powerful Electorates Also Act and Think Long Term?”. *Business Lawyer*, 66(1), November, pp. 1-26.

32. Tewodros M. (2011). ”Governance of Share Companies in Ethiopia”, In: Seyoum Yohannes (eds.), Starting and Building a Business Association in Ethiopia: The Legal and Institutional Dimensions*, Ethiopian Business Law Series*, AAU, School of Law, Vol. 4, August, pp. 53.

33. Tura, H. (2012). ”Overview of Corporate Governance in Ethiopia: The Role, Composition and Remuneration of Boards of Directors in Share Companies”. Mizan Law Review Vol. 6 (1), pp. 45-76.

THE EFFECT OF RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN ETHIOPIA

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Abstract

Efficient and effective performance of banking industry over time is an index of financial stability in any nation. Risk management is a key issue to sustain the financial stability. The presence of different risks in financial industry appeals for effective risk management procedures. As a result, this study examined the effect of risk management on financial performance of 17 Ethiopian Commercial Banks. Quantitative research approach was applied using secondary data for the sample period covered from 2013 to 2017. The collected data was analyzed by using panel random effect regression model. The result of the study shows that credit risk, liquidity risk, operating risk and market risks have significant negative impact on financial performance of commercial banks in Ethiopia. Whereas, bank size as control variable has positive impact on financial performance of commercial banks. The study concludes that credit, liquidity, operation and market risks have significant effects on financial performance of commercial banks in Ethiopia. The study suggests that commercial banks in Ethiopia should manage their loan portfolio and hedge their business risks in the market so as to sustain their financial performance.

Keywords: Effective Risk Management, Financial Stability

JEL Classification: G32, L25

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1. Introduction

The banking sector plays a crucial role in intermediating surplus units to the deficit units for the development and growth of the economy. It is an important source of financing for most businesses by maximizing the wealth of shareholders. But, while the sector plays those mentioned roles, it has so many risks that challenge the industry. In today's dynamic finance world supervisors and financial institutions have increased the focus on the importance of risk management (Christine & Beverly, 2001). As a result, both public and private banks have engaged on upgrading their risk management and control systems for sustaining their better financial performance.

International Monetary fund's country report (2015) (as sited in Belay, 2016) shows that the overall financial soundness indicator of Ethiopia's banking sector appears to be healthy. The report shown that capital adequacy of the banking industry as of March 2015 is 16.6% whereas the minimum requirement set by NBE is 8%. The ratio of non-performing loans was 2.4%. But short-term liquidity problems are reported to have appeared at few banks in the course of the year 2015. Ethiopia does not have stock market and the financial sector is highly dependent on the banking system. The fact that the country's financial sector relies on the bank system requires great care in ensuring its elasticity and sustainability, particularly from different risk that impairs banks financial performance. As a result, the NBE regulates, supervises and issues different directives. Consequently, relying on the fact it is obvious the general belief on the risk position of the Ethiopian banking industry it appeals to examine the risk management effect on financial performance of commercial banks in Ethiopia. Since, it is difficult to make an inference based on the results of other countries to Ethiopia context due to unique financial sector policy of banks in Ethiopia like dominance of state owned banks, individual bank size littleness and deterrence of foreign banks ownership might make it difficult to make conclusion to Ethiopian context. Besides, some variables are overlooked, such as market risks (Bagh et.al, 2017; Muthiiet el, 2017; studies tried to fill those mentioned gaps, by including some overlooked variables by assessing the effect of risk management on financial performance of Ethiopian commercial banks.

The main objective of the study was to examine the effect of risk management on financial performance of Ethiopian commercial banks.

2. Literature Review

2.1. Theoretical frameworks

The study relied on the following theories, namely:

- Finance distress theory, which is linked with the credit, operational and liquidity risks;
- Extreme value theory which is linked with market risks.

2.2. Empirical Review

Al-Khouri (2011) examined the impact of overall banking environment on the performance of 43 commercial banks operating in 6 of the Gulf Cooperation Council countries over the period 1998-2008. He found that credit risk, liquidity risk and capital risk are the major factors that affect bank performance when profitability is measured by return on assets while the only risk that affects profitability when measured by return on equity is liquidity risk.

Kargi (2011) studied the impact of credit risk on the profitability of Nigerian banks. Financial ratios as measures of bank performance and credit risk were collected from the annual reports and accounts of sampled banks from 2004-2008. The findings revealed that credit risk management has a significant impact on the profitability of Nigerian banks inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress.

Adeusi and Akeke, (2013) examined risk management practices and bank financial performance in Nigeria. Panel data was used. Financial performance of banks and doubt loans, capital asset ratio and managed fund was found to be positive and significant.

Oluwafemi et. al, (2013) examined the association of risk management practices and bank financial performance in Nigeria. Secondary data of 4years annual reports of 10 banks used. The result implies cost of bad loan was found to be a negative but significant influence of bank performance.

Gathigia (2016) examined the effect of financial risk on financial performance of commercial banks in Kenya. The quantitative research design was adopted in the study. The target population of this study was the 43 commercial banks. Panel data was used and secondary data was obtained from published financial statements for ten years from 2005 to 2014. Researcher found that credit, market, liquidity and operational risks have significant negative effect on return on equity. The component of financial risk that had the most impact on financial

performance was cost to income ratio, i.e. operational risk. Despite, researcher looked at major risks impact on financial performance of commercial banks, but we have some context difference that needs to be customized as per Ethiopian context, particularly financial liberalization aspect.

Worku (2006), conducted the study on the impact of liquidity risk on the performance of commercial banks of Ethiopia. He argued that liquidity has an impact on the performance of commercial banks in Ethiopia and there was an inverse relation between deposit/net loan and ROE. And the coefficient of liquid asset to total asset was positive and directly related with ROE. In addition, the study also found that the capital adequacy of all banks in Ethiopia were above threshold, means there was sufficient capital that can cover the risk-weighted assets. Depositors who deposit their money in all banks were safe because all the studied banks fulfilled NBE requirement.

Similarly, Tseganesh (2012), conducted the study on the determinants of banks liquidity and their impact on financial performance. The study used balanced fixed effect panel regression model with eight commercial banks in the sample covered the period from 2000 to 2011. The result of the study revealed that, liquidity capital adequacy and bank size had positive impact on financial performance whereas, non-performing loans and short-term interest rate had negative impact on financial performance. Interest rate margin and inflation had negative but statistically insignificant impact on financial performance.

Shibiru and Mebratu (2017) assessed the impact of credit risk management on the performance of six private commercial banks in Ethiopia for a 14 period (2000 to 2013). The data were collected from audited financial statement and National Bank of Ethiopia. The collected data were analyzed by using panel data regression model and the result showed capital adequacy ratio, total loan ratio, non-performing ratio, bank size and liquidity ratio have a significant impact on the performance (ROA and ROE). Though, the study attempted to examine credit risk from different perspective, it was limited to credit risk only instead of inculcating other risks and it missed government commercial bank which has lion share in the market.

Endaweke (2015) investigated the impact of risk management on bank performance on the Ethiopian bank performance. Balanced fixed effect panel regression was used for the data of eight commercial banks from 2002 to 2013. Four risks were seen as independent

variables that affects banks performance were used and analyzed. The results of panel data regression showed that credit risk indicator (NPLR), Liquidity risk indicator (LIQR) and operational risk indicator (CIR) had negative and statistically significant impact on banks performance. Despite his approach is more pragmatic, but he was missed market risks impact assessment on banks performance.

Although, various studies have been conducted so far in the field of risk management, but the main focuses of those studies were on credit risk and there was little work have been done on other risks, particularly most of the studies missed market risks. Secondly, new empirical testing to the debate is required due to in consistent findings. Hence, there are some limitation in literature and requires enhancement on the underlying impact of risk management on Banks financial performance, particularly in Ethiopian commercial banking sector context. Hence, this study aims to fill those gaps in the literature by focusing on the risk management practices of the commercial banks of Ethiopia and linking the practices with the financial performance of the commercial banks.

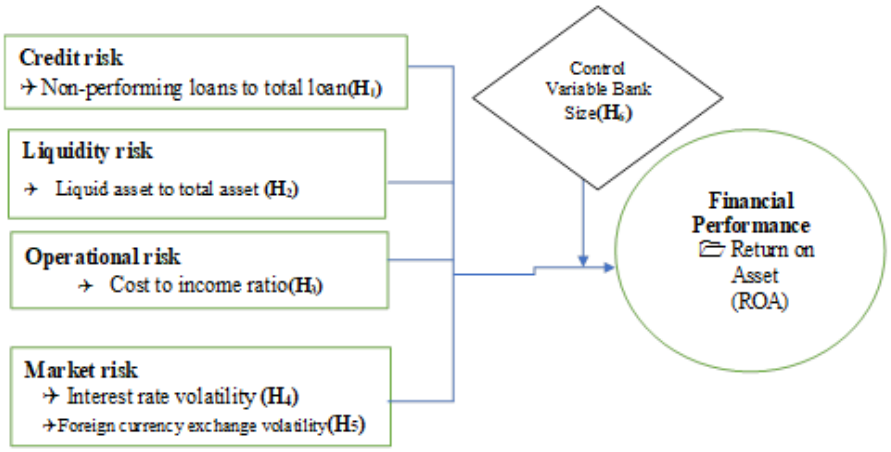
2.3. Conceptual Framework

A conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate it. When clearly articulated, a conceptual framework has potential usefulness as a tool to assist a researcher to make meaning of subsequent findings. It forms part of the agenda for negotiation to be scrutinized, tested, reviewed and reformed as a result of investigation and it explains the possible connections between the variables (Smith, 2004).

To guide the study, the variables of financial performance of banks was affected by credit, liquidity, operational, interest rate volatility, foreign exchange rate volatility and firm size discussed above is presented in the conceptual framework model shown in Figure 1.

Figure 1

Conceptual Framework



Source: Authors' representation

3. Methodology

The study employed explanatory research design. This design is further supported by quantitative research approach to generalize about the effect of risk management on financial performance of commercial banks. For mentioned approach, the main source of data for the study was secondary sources that collected from audited financial statements of seventeen selected banks and NBE Report for five consecutive years (2013-2017) were used.

Financial performance was measured using return on asset (ROA) by dividing net income over total asset.

$$Y_{it} = \alpha + \beta x_{it} + \varepsilon_{it}$$

In this equation, y_{it} represents the dependent variable, and x_{it} contains the set of explanatory variables in the model. The subscripts i and t denote the cross-sectional and time-series dimension respectively. Also, α is taken to be constant over time t and specific to the individual cross-sectional unit i.

The following regression model was used to establish the relationship among the study variables.

$$ROA_{it} = \beta 0 + \beta 1\ (NPLR)_{it} + \beta 2\ (LCR)_{it} + \beta 3\ (CIR)_{it} 3 + \beta 4\ (IRV) 4 + \beta 5\ (ERV) 5 + \beta 6\ (FS)_{it} + \varepsilon$$

Y = Financial performance of banks (ROA); X_1 = NPLR= credit risk management indicator (Non-performing loans); X_2 = LCR = Liquidity risk management indicator (Liquidity coverage ratio); X_3 = CIR = operational risk management indicator (Cost to Income ratio); X_4 = IRV-Interest rate volatility market risk management indicator; X_5 = ERV = Exchange rate volatility market risk management indicator; X_6 = FS-Control Variable Firm size; β_0 = regression constant; β_1, β_2, β_3 and β_5= coefficients associated with predictor variables; ε = Residual (error) term.

In order to address the stated objectives and formulated hypothesis, the necessary regression analysis diagnostic tests such as the assumption of homoscedasticity, autocorrelation, normality and test for multicollinearity were conducted to ensure that the data fits the basic assumptions of classical linear regression model or not, and the result of all tests satisfy the basic assumptions of linear regression model.

Random effect (RE) versus fixed effect (FE) models

According to Gujarati (2004), if T (the number of time series data) is large and N (the number of cross-sectional units) is small, there is likely to be little difference in the values of the parameters estimated by fixed effect model/FEM and random effect model/REM. On the contrary, REM may be preferable. Since the number of time series (i.e. 5 year) is less than the number of cross-sectional units (i.e. 17 commercial banks), REM is preferable in this case. This fact is further triangulated by using Hausman test that as REM is more appropriate on table 1 , since p-value is greater than 0.05 (i.e 0.4615)

Table 1

Hausman test

Correlated Random Effects - Hausman Test
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.638963	6	0.4615

Source: Secondary data-E-Views output and own computation.

4. Result Presentation and Analysis

The estimation result of random effect panel regression model is presented in table 4.1 indicates that R-squared and Adjusted-R squared statistics of the model was 82.87% and 81.55% respectively, the result indicates that the changes in the independent variables explain 81.55% of the changes in dependent variables. That is credit risk liquidity risk, operational risk and market risks and size of firm collectively explain 81.55% of the changes in return on asset. The remaining 18.45% of changes of return on asset was explained by other variables which are not included in the model. Thus, these variables collectively are good explanatory variables of the return on asset of commercial banks in Ethiopia. The regression F-statistic and the p-value of zero attached to the test statistic reveal that the null hypothesis that all of the coefficients are jointly zero should be rejected. Thus, it implies that the independent variables in the model were able to explain variations in the dependent variable. The collected data was analyzed using panel random effect regression. Hence, its regression result is presented in table 2, as follows:

Table 2

Regression result

Dependent Variable: ROA
Sample: 2013 2017
Included observations: 85

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.445984	0.323166	4.474426	0.0000*****
NPLR	-0.216859	0.102695	-2.111677	0.0379******
LCR	-0.206390	0.102132	-2.020817	0.0467******
CIR	-0.833383	0.049905	-16.69925	0.0000*****
IRV	-0.367990	0.033456	-10.99933	0.0000*****
ERV	-0.149093	0.012393	-12.03069	0.0000*****
FS	0.107459	0.030488	3.524589	0.0007*****
R-squared	0.828666	F-statistic		62.87534
Adjusted R-squared	0.815487	Prob(F-statistic)		0.000000

and, represent significant at 1% and 5%, respectively.*

Source: Audited Financial statements of commercial banks, NBE reports and e-views output.

In the model return on asset (ROA) was used as dependent variable, credit risk -Non-performing loans, and Liquidity risk -Liquidity coverage ratio were found to be negatively affects the financial performance of the commercial banks at 5% significance level. Whereas, operational risk -Cost to Income ratio, Interest rate volatility market risk, Exchange rate volatility market risk were found significantly affect ROA negatively at 1%. Control variable firm size has found as it has positive impact on ROA.

Analysis

This section of the chapter discusses some of the main implications of the results. The analysis is based on the regression result which indicates the relationship between dependent and independent variables presented in table 2. The result obtained under this study is analyzed as follows**.**

- **Credit risk**

H_1: estimates significant negative relationship between credit risk and bank's financial performance as expected the coefficient of credit risk which was measured by the non-performing loan to total loan ratio was negative and statistically significant at 5% significance level (p-value = 0.0379). The coefficient of credit risk implies that if credit risk increased by 1% ROA decrease by 21.69%. The negative coefficient indicates that an increase in provision for loan losses implies a higher cost of bad debt write offs which ultimately reduce banks profitability. Given the risk-averse behavior, banks facing higher credit risk are likely to pass the risk premium to the borrowers, leading to higher interest charge to the borrower. Hence, the higher the risk, the higher the pricing of loans and advances to compensate for likely loss, will result to increase further default risk that ultimately decrease the financial profitability of commercial banks in Ethiopia. So, from the findings we can conclude that credit risk was one of the main risks that adversely affect commercial banks in Ethiopia. Further, unlike with Elias (2015); the finding is also consistent with previous studies of Girma (2011), Tseganesh (2012), Adeusi and Akeke, (2013),Oluwafemiet. al, (2013), Cynthia (2014), Endaweke (2015), Million et. al. (2015), Gathigia (2016), Shibiru and Mebratu (2017), Bagh et.al. (2017).

- **Liquidity risk**

H_2 predicts significant negative relationship between liquidity risk and bank's financial performance. Based on estimated the coefficient of liquidity risk which was measured by the ratio of liquid

assets to deposits and short-term funding was negative and statistically significant at 5% significance level (p-value=0.0467). The coefficient of liquidity risk implies that if liquidity risk increased by 1% financial performance-ROA by 20.64%. The negative coefficient implies that the banks with high liquidity risk push commercial banks to borrow emergency funds at high cost and this leads for paying a interest expense that is reflected in higher margins. This reveals that the bank with high liquidity risk pays high costs in order to compensate the risk premium; as a result, this will obligate the banks to reduce their return. The finding of this study is consistent with Worku (2006), Al-Khouri (2011), Kargi (2011), Adeusi and Akeke, (2013), Elias (2015) , Endaweke (2015) ,Gathigia (2016),Bagh et.al, (2017) and Shibiru and Mebratu (2017).

- **Operational risk**

H_3 estimates significant negative relationship between operating risks and bank's financial performance. Similar to projected, the coefficient of operating risks which was calculated by the ratio of operating expense to operating income was negative and statistically significant at 1% significance level (p-value=0.0000). The coefficient of operating risks entails that if operating risk increased by 1% risk and ROA decrease by 83.33%. Other things remain constant, the higher negative coefficient that existed between operating risk and ROA, clearly shows as the Ethiopian commercial banks. An increase in costs for a given level of income will reflect decreased profits and vice versa. Decreased profits, in turn, will reduce return on asset of the bank which ultimately results for deteriorated share prices. Unlike Elias (2015), this result is consistent with Endaweke (2015), Gathigia (2016) and Bagh et.al, (2017).

- **Market Risks**

Market risk is the risk that the value of a portfolio, either an investment portfolio or a trading portfolio will decrease due to the change in market risk factors. The four standard market risk factors are stock prices, interest rates, foreign exchange rates, and commodity prices. In this study we have used two proxies, to measure market risks, namely interest rate risk and foreign exchange risk.

- **Interest rate volatility**

H_4 predicts significant negative/positive relationship between interest rate volatility and banks performance. Among study's dual prediction. the coefficient of interest rate volatility which is measured

by standard deviation of annual money market interest rate was found negative and statistically significant at 1% significance level (p-value=0.0000) for ROA. The coefficient of interest rate volatility implies that if interest rate volatility increases by 1%, decrease ROA by 36.80%. The negative relationships between interest rate volatility and dependent variable ROA suggest the volatility in money market interest rate creates reinvestment and refinancing risks arising from fluctuations in interest rates, due to the maturity mismatch between banks assets and liabilities accordingly, banks risk increase. As a result, as a risk hedging mechanism, banks are pushed to incur higher loss. This means an increase in interest rate volatility will lead to an increase in interest rate loss by increasing uncertainty. This finding is consistent with Gathigia (2016), and Bagh et.al, (2017).

- **Exchange rate volatility**

H_5 forecasts significant negative/positive relationship between exchange rate volatility and banks performance. Despite, the prediction has dual expectation, the result shows that the coefficient of exchange rate volatility which was measured by the standard deviation of the percentage change in the real exchange rate was found negative and statistically significant at 1% significance level (p-value=0.0000). The coefficient of exchange rate volatility shows that if exchange rate volatility increased by 1%, ROA decrease by 14.91%. The negative relationship between exchange rate volatility and ROA implies that an increased in macroeconomic instability heightens the risk faced by commercial banks, as a result the banking sector will exposed more to market risk, incur more costs to protect against the increased risk for hedging. The finding is consistent with Gathigia (2016).

- **Firm size**

H_6 forecasts significant *positive relationship between* firm size and bank's financial performance*. As control variable, the prediction result shows that* the coefficient of firm size which was measured by the natural logarithm of total asset was found positive and statistically significant at 1% significance level (p-value=0.0000). The coefficient of firm size shows that if firm/bank size increased by 1%, ROA increase by 10.75%. The positive relationship between bank size and ROA implies that an increased bank size promotes better diversification which minimizes risks and enables banks to enhance their operations with better capital and stable funding. It also signifies as the size becomes larger; it enables to operate in a different market segment. Furthermore, the higher banks size has a comparative advantage in

market-based activities which require significant fixed costs and enjoy economies of scale. The finding is consistent with Laeven et al., (2014) and Gathigia (2016).

5. Conclusion

Risk management is crucial for banking sector to sustain their better financial performance since banking sectors has great contribution in the allocation of nation's limited savings among the most productive investments and enhance the efficient allocation of risks of those investments. The objective of this study was to investigate to examine the effect of risk management on financial performance on financial performance of 17 Ethiopian Commercial Banks covering the period of 2013-2017.Quantitative research approach was used, and the secondary data was collected from audited financial statement of banks and NBE annual report. The collected data was analyzed by using panel random effect regression model and by using Eviews 9 software. The finding of the study shows that credit risk, liquidity risk, operational risk, market risks have statistically significant and negative relationship with financial performance of commercial Banks in Ethiopia. On the contrary, bank size has a positive and statistically significant relationship with financial performance of commercial Banks in Ethiopia. Generally, the finding of this study was consistent with theory of financial distress (credit, liquidity and operational risks, and extreme value theory consistent with market risks variable finding.

References

1. Adeusi and Akeke (2013), risk management practices and bank financial performance in Nigeria.
2. Al-Khouri (2011) the impact of bank's specific risk characteristics, and the overall banking environment Gulf Cooperation Council (GCC) countries over the period 1998-2008.
3. Bagh T., Muhammad A. Khan, SadafR(2017) The Underlying Impact of Risk Management Practices on Banks Financial Performance. International *journal* of research in business studies and management, Volume 4, Issue 7, 2017, PP 10-23

4. Belay Nega Belayneh (2016), Relationship and Behavior of Liquidity And Profitability In Commercial Banking Industry Of Ethiopia , thesis,AAU
5. Christine M. Cumming and J. Hirtle Beverly, (2001). Comparison of two theoretical models, Management Challenges of risk management in diversified Science, 35(8): 982-1003.
6. Cynthia Akong'a Jeniffer (2014), the Effect Of Financial Risk Management On The Financial Performance Of Commercial Banks In Kenya
7. Elias W. (2015) The Impact Of Credit Risk Management On The Performance Of Selected Commercial Banks In Ethiopia
8. Endaweke M. (2015) Risk Management and Its Impact on Financial Performance of Commercial Banks in Ethiopia MSc thesis
9. Gathigia Jane Muriithi (2016), Effect of Financial Risk on Financial Performance of Commercial Banks in Kenya. Unpublished PhD Dissertation, Jomo Kenyatta University of Agriculture and Technology
10. Girma (2011), "Credit Risk management and its impact on performance in Ethiopian Commercial Banks.
11. International Monetary fund's country report (2015)
12. Kargi (2011) the impact of credit risk on the profitability of Nigerian banks.
13. Laeven, L., Ratnovski, L., & Tong, H. (2014). Bank size and systemic risk: Some international evidence. InternationalMonetary Fund, Mimeo.
14. Million G., Matewos K. and Sujata S. (2015) The impact of credit risk on profitability performance of commercial banks in Ethiopia
15. Muthii W., Joel G. Wanjohi, James M. Ndambiri(2017) The Effect Of Financial Risk Management On The Financial Performance Of Commercial Banks In Kenya Stephen ,International Journal Of Finance And Banking Research

2017; 3(5): 70-81 ISSN: 2472-226X (Print); ISSN: 2472-2278 (Online)

16. Oluwafemi S. Niyi I., Obawale S., and Olawale(2013)Risk Management and Financial Performance Of Banks In Nigeria IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 14, Issue 6 (Nov. - Dec. 2013), PP 52-56 www.iosrjournals.org
17. ShibiruTade and MebratuNegera (2017), The Impact of Credit Risk Management on the Performance of Private Commercial Banks in Ethiopia Vol.8, No.15, 2017
18. Smith, K. A. (2004). Voluntarily reporting performance measures to the public a test of accounting reports from US Cities. International Public Management Journal, 7(1), 19
19. Tseganesh (2012), conducted the study on the determinants of banks liquidity and their impact on financial performance.
20. Worku (2006), the impact of liquidity risk on the performance of commercial bank's of Ethiopia.

AN ECONOMETRIC ANALYSIS OF DETERMINANTS OF DEBT SUSTAINABILITY IN ETHIOPIA

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Abstract

Sound and efficient external debt sustainability is an essential instrument to shred the notoriety of indebtedness and to ameliorate economic growth. This study was conducted with an objective to examine the determinants of foreign debt sustainability in Ethiopia using a yearly time series data that lasts from 1980 to 2016. A log-linear regression model was used, and the results demonstrate that debt service to GDP ratio and real effective exchange rate were statistically significant and positively associated with debt sustainability in Ethiopia. Whereas terms of trade and foreign real interest rate were found statistically significant and have a negative relationship with debt sustainability in Ethiopia. The growth rate of foreign GDP and fiscal position of government were statistically insignificant and have opposite signs to impact debt sustainability in Ethiopia. Hence, cautious domestic macroeconomic policies that will avoid overvaluing real effective exchange and deteriorating terms of trade should be designed and implemented.

Keywords: External Debt, debt Management, Economic Growth, Log-linear regression

JEL Classification: F34, H63

1. Introduction

Throughout the last decade Ethiopia has moved to broad based and copious economic growth trajectory with an average annual GDP growth rate of around 10 percent (Admasu, 2017). This double digit and colossal economic growth of the country is shining behind the persistently widened fiscal and current account deficits and an onerous burden of external debt. This is why the spurt economic growth

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registered by the country for several years is perceived to be miraculous as the reason behind the curtain is hardly elusive. But, at the rear of miraculous economic growth, there is indeed huge external debt accumulation and indebtedness. The other more debatable issue is the sustainability of the existing rapid economic growth as the country's debt stock is severely mounting year after year. This is because economic growth is hampered by the backwash effect of external debt (Schclarek, 2004; Adepoju et al., 2007; Hameed and Ashraf, 2008; Safdari and Mehrizi, 2011).

Ethiopia is designated as one of the severely indebted low-income countries in the world with unmanageable debt burden (Kebret, 2005; Flynn, 2005). In historical terms, after the downfall of the imperial regime the size of debt has increased significantly and in 1975 the magnitude of the debt was only USD 371 million but after 23 year in 1998 the debt has unprecedentedly risen to USD 9, 812 million. This stood at 150 percent of GDP and 940 percent of export. The scheduled debt service represents 54 percent export earnings (Teklu, 2000). The debt stock to GDP ratio deteriorated to the level of 10.4% in 2007 and grows steadily to 10.5% in 2008. The figure has abruptly increased to 17.8 percent in 2009 (NBE, 2009). Between 2010 and 2015 Ethiopia's debt stock to GDP ratio grew at an average rate of 25.96 percent. In 2016, the country's external debt stock has reached USD 23.5 billion and debt to GDP ratio stood at 30.7 percent (NBE, 2017). Furthermore, according to the report of IMF public debt shares about 54.2 percent of the Ethiopia's GDP in 2016 (IMF, 2016).

For more than a couple of decades, Ethiopia has been having problems of managing her debt service obligations. The debt service lingered somehow away from the average of severely indebted low-income countries (SILICs). The extent of debt burden of the country for instance in 1993 indicates that the ratio of debt service schedule to exports was 47.4 %, slightly greater than the average of 43% for all SILICs. But, the actual debt service to export ratio was only 9 percent which highlights the severity of accumulated arrears of external debt and implies debt overhang. In 1998, the planned debt service to export ratio further augmented to 54 percent (Teklu, 2000). The lowest actual debt service to export ratio was recorded in 2006 by 2.5 percent (NBE, 2007). However, because of 4 billion USD worth debt relief secured in 2007 from the international development community, Ethiopia has made a significant recovery and back on the track of sustainable debt path (Alemu and Zenebe, 2011).

Similarly, over the last three years, the debt service to export ratio has shown a tremendous adjustment from 32.3% and 39.2% in 2014 and 2015, respectively, to 42.2% in 2016 (NBE, 2017). This signifies, currently, Ethiopia has been escaping from the maze of debt overhand but not a guarantee that the indebtedness is being entirely vanished. The external indebtedness may last to deteriorate in the future as long as the debt servicing is persistent and remains high. It is therefore valuable to scrutinize the determinants of the debt sustainability in Ethiopia by establishing causation between debt sustainability and its corresponding key determinants. While there are anecdotal empirical evidences on determinants of debt sustainability in the existing literature (Ajayi, 1991; Mahmood et al., 2009; Kiptoo, 2012; Imimole et al., 2014), the issue remains completely unaddressed in the context of Ethiopia and consequently needs to be addressed abruptly. The current study therefore aims to deal with this and other similar issues in perspective and propose the way forward by offering some possible policy solutions.

2. Literature Review

2.1. The Concept of Debt Sustainability

When does a given debt level is said to be sustainable?

Debt sustainability is one of the most vexing issues and escapes any simple definition. This is why there are so many subjective and competing definitions in the existing literature associated with it. Although other imperative policy objectives are able to be objectively defined and measured, it is debt sustainability that neither easy to be defined nor simple to be directly measured (Wyplosz, 2009). Ejaz and Javid (2011) defined debt sustainability as the level of debt that permits a country to continually fulfill its present and forthcoming debt servicing obligations without any further rescheduling or buildup of accruals. In accord with this definition, Kiptoo, (2012) defined debt sustainability as situation where borrowers are able to continually meet their debt servicing obligations without any large balancing adjustment to income and expenditure.

For Mohammadi, Cak and Cak (2007) debt sustainability refers to the ability of the country to meet the required debt obligations and the situation where the inter-temporal budget constraint is fulfilled. To culminate we referred the IMF definition which states debt sustainability as a situation that satisfies the debt solvency of a country

without undertaking a major balancing correction to income and expenditure given the costs of financing (IMF, 2002). Therefore, a given debt is thought to be sustainable when the debtor country is in a position to meet the present and upcoming debt service obligations fully without recourse to additional debt relief or rescheduling and able to avoid buildup of arrears with a minimum acceptable level of economic growth (Muwanga-Zake and Ndhaye, 2001).

2.2. Indicators of Debt Sustainability

In analyzing debt sustainability, both indicator method and empirical approach were used (Hamilton and Flavin, 1986; Trehan and Walsh, 1988; Kebret, 2005). There are basically various indicators that are used by IMF in order to determine the sustainable level of external debt (IMF, 2000). Whereas there is no unanimous consensus between economists as to which indicator is best to be solely used, it is evident that each indicator is peculiar and has its own merits and demerits to deal with particular policy objective. The primary form to specify these indicators are ratios and these indicators thought to be measures of solvency (Muhanji and Ojah, 2011).

According to the IMF (2000) sets of debt sustainability indicators are used and the first set of indictors include debt to GDP ratio, foreign debt to exports ratio, share of foreign debt to total debt stock, government debt to current fiscal revenue ratio, short-term debt to total debt stock, and share of concessional debt to total debt stock. The second set of indictors includes debt service to GDP ratio, government debt service to current fiscal revenue ratio, and external debt service to exports ratio. The second indicators mainly focus on the short-term liquidity requirements of the country in accordance with its debt service obligations and are more useful to sign the early warn of debt service problems and highlight the impacts of inter-temporal trade-offs that arises from past borrowing decisions. The third set of indicators is more dynamic and forward looking as they identify how the debt burden will change over time and includes the ratio of average interest rate on outstanding debt to the growth rate of nominal GDP (Muhanji and Ojah, 2011). From the foregoing debt sustainability measures, in this study we used debt to exports ratio to measure the Ethiopian debt sustainability as Ajayi (1991) and Imimole et al. (2014) did.

2.3. Theoretical Grounds

Theoretically one can find in general that an improvement in terms of trade and a rise in the ratio of debt service to GDP are expected to improve debt to export ratio. Whereas, deterioration of terms of trade and a decrease in the ratio of debt service to GDP are expected to worsen debt to export ratio. While an appreciation of real effective exchange rate leads to worsen the debt to export ratio, depreciation of real effective exchange rate leads to improve the debt to export ratio. A rise in the foreign real interest rate leads to worsen the debt to export ratio. An increase in the growth rate of income in industrialized countries would lead to an improvement in the debt to export ratio. Similarly, a development in the fiscal position of government tends to improve debt to export ratio (Ajayi, 1991).

2.4. Empirical Findings

Greenidge, Drakes, and Craigwell, (2010) analyzed the factors affecting external debt in Caribbean Community using co-integration test and dynamic OLS and the result implies that export and real effective exchange rate (REER) were found to be negatively correlated with external debt. Kiptoo (2012) examined the determinants of Kenya's external debt sustainability and the econometric findings revealed that export and GDP were positively associated with debt sustainability. The study further finds that debt sustainability and external debt have negative and significant associations. Mahmood, Rauf and Ahmad (2009) have used debt to export ratio, among others, to investigate debt sustainability in Pakistan and these authors result imply that fiscal deficit a highly significant while the effect of interest rate was less significant.

The study from Uganda by Barungi and Atingi (2000) and Nigeria by Ajayi (2000) analyzed the contribution of external factors on debt accumulation in their respective country. These authors finding show that REER and terms of trade (TOT) were the two key variables that affect external indebtedness in these countries. Loser (2004) investigated indicators of external debt sustainability of low- and middle-income countries and finds that REER, TOT, interest rate and fiscal deficit were among the indicators of external debt sustainability in these countries. Bader and Magableh (2009) in their part analyzed the determinants of external debt accumulation in Jordan and the result indicates that budget deficit, size of external debt, and saving gap were the variables that affect external debt. The finding further indicates that

REER was the most significant variable in terms of affecting external debt.

Awan, Asghar, and Rehman (2011) examined the impacts of fiscal deficit, exchange rate and terms of trade on foreign debt of Pakistan. The study confirms that there is a certain significant long run association between external debt and the aforementioned explanatory variables. Similarly, Awan, Anjum and Rahim (2015) in their recent study found that fiscal deficit, trade openness and nominal exchange rate were the significant determinants of external debt in Pakistan. Pyeman, Noor, Mohamad, Yahya (2014) analysed determinants of external debt in Malaysia and they found that GDP, FDI, and export were the important factors that influence foreign debt. Imimole, Ehikioya, Asin (2014) investigated determinants and sustainability of foreign debt in Nigeria applying co-integration analysis and the result reports that external debt to GDP ratio and TOT are negatively correlated but statistically insignificant.

Ajayi (1991) used regression analysis and finds that falls in the growth rate of income in industrialized countries and a rise in foreign real interest rate have negative effects on the debt to export ratio and government fiscal position found to be positively correlated with this ratio in Nigeria. He also found empirical evidence that a worsening in terms of trade had worsens the Nigerian debt to export ratio.

2.5. Formulation of Research Hypotheses

From the foregoing theoretical grounds and empirical findings, this study has formulated the following six research hypotheses.

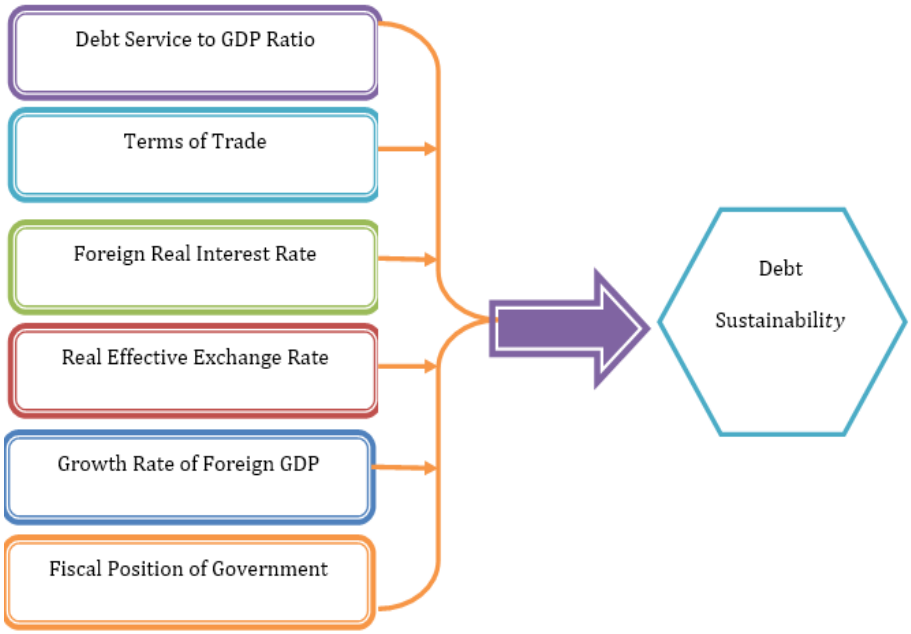
- H_1: Debt service to GDP ratio is positively associated with debt sustainability
- H_2: Real effective exchange rate is positively associated with debt sustainability
- H_3: Growth rate of foreign GDP is positively associated with debt sustainability
- H_4: Fiscal position of government is positively associated with debt sustainability
- H_5: Foreign real interest rate is negatively related with debt sustainability
- H_6: Terms of trade is negatively related with debt sustainability

2.6. Conceptual Framework

The conceptual framework of present study has been depicted in figure 1 and illustrates the unidirectional relationship between macroeconomic variables and external debt sustainability.

Figure 1

The conceptual framework of the present study



3. Data and Research Methodology

3.1. Data and Variables Description

To achieve the foregoing stated objective of this study, we have basically used different economic data and macro-econometric model. The data used in the analysis were obtained from National Bank of Ethiopia (NBE), Ministry of Finance and Economic Development (MoFED), Central Statistical Agency (CSA), International Monetary Fund (IMF) and World Bank (WB). Annual time series data spanning from 1980 to 2016 were used. Since this study focuses on the macroeconomic determinants of debt sustainability in Ethiopia, the following explanatory variables were adapted from Ajayi (1991) and Imimole et al. (2014). These are debt service to GDP ratio (DGDPR),

terms of trade (TOT), growth rate of foreign GDP (GFGDP), foreign real interest rate (FRRI), real effective exchange rate (REER) and fiscal position of government (FPY).

To estimate the effects of external economy on debt sustainability of Ethiopia, we have used the GDP growth rates of 7 industrialized countries (USA, Germany, Japan, United Kingdom, France, China and Italy). In this study, we have defined the fiscal position of government as revenue minus expenditure divided by GDP. The explained variable of our model, external debt to export ratio, was adopted from Ajayi (1991) and used to measure debt sustainability.

3.2. Empirical Model Specification

In order to examine the macroeconomic determinants of debt sustainability, the present study has used econometric model that takes the following functional form.

$$\mathrm{DER_t} = \mathrm{f(DGDPR, TOT, GFGDP, FRRI, REER, FPY\ )}$$

Where:
DER=Debt to Export Ratio,
DGDPR=Debt Service to GDP Ratio,
TOT=Terms of Trade,
GFGDP=Growth Rate of Foreign GDP,
FRRI=Foreign Real Interest Rate,
REER=Real Effective Exchange Rate,
FPY=Fiscal Position of Government.

Rewriting the above general functional form into a more particular form gives the following estimation equation.

$$\mathrm{DER_t} = \beta_0 + \beta_1\,\mathrm{DGDPR} + \beta_2\,\mathrm{TOT} + \beta_3\,\mathrm{GFGDP} + \beta_4\,\mathrm{FRRI} + \beta_5\,\mathrm{REER} + \beta_6\,\mathrm{FPY} + \mu_t$$

Transforming the above variables into logarithm form yields the following empirical estimating model.

$$\mathrm{LnDER_t} = \beta_0 + \beta_1\,\mathrm{LnDGDPR} + \beta_2\,\mathrm{LnTOT} + \beta_3\,\mathrm{LnGFGDP} + \beta_4\,\mathrm{LnFRRI} + \beta_5\,\mathrm{LnREER} + \beta_6\,\mathrm{FPY} + \mu_t$$

Where:
LnDER - Log of Debt to Export Ratio,
LnDGDPR - Log of Debt Service to GDP Ratio,
LnTOT - Log of Terms of Trade,
LnGFGDP - Log of Growth Rate of Foreign GDP,

LnFRRI - Log of Foreign Real Interest Rate,
LnREER - Log of Real Effective Exchange Rate,
FPY - Fiscal Position of Government,
μ_t - error term.

4. Regression Result and Discussions

4.1. Statistical and Econometric Tests

Prior to interpret and discuss the regression coefficients of variables, the time series properties of data for all variables must be first checked for stationarity so as to avoid spurious and misleading regression results (Granger, 1986). Thus, to ensure the stationarity of the variables in use, we have used the conventional method of testing for stationarity of the series, Augmented Dickey Fuller (ADF) test. The results of ADF test that compares the calculated and McKinnon critical values with different level of significance are presented in Table 1.

The results of ADF test indicates that variables such as LnDER, LnDGDPR, LnGFGDP, LnFRRI, and FPY are stationary at level form but LnTOT and LnREER are stationary in their first difference. To illustrate, LnGFGDP, LnFRRI, and FPY are stationary in level, since the ADF calculated values of these variables at level is greater than the McKinnon 1% critical values. LnDER is stationary at level at 5% level of significance and LnDGDPR is stationary at level at 10% level of significance. LnTOT and LnREER are stationary at first difference, since the ADF calculated values of these variables at first difference is greater than the McKinnon 1% critical values.

As shown in Table 2 the value of R- squared is 0.7688 and is the coefficient of determination. It indicates that about 76.9% of the total variations in debt to export ratio of Ethiopia are explained by the variations in debt service to GDP, terms of trade, growth rate of foreign, foreign real interest rate, real effective exchange rate, and fiscal position of government. This implies that the model we have used explains large proportion of variations in debt sustainability in Ethiopia. The rest of the variation is accounted for excluded determinants of debt sustainability. Looking at the F-statistics, Table 2 shows the overall significance level of the estimated parameters with a probability value of 0.000. This indicates that all explanatory variables included in our model are jointly significant at 1% level of significance. Therefore, we have rejected the null hypothesis that all independent variables are zero jointly and simultaneously.

A diagnostic test of autocorrelation is conducted to look the troubles of serial autocorrelation and detect the existence of relationship between successive values of the same variable (usually, the error term). Durbin Watson test of autocorrelation is estimated as shown in Table 2 and the calculated value of the Durbin Watson test is 1.74. This statistic falls in the region of no serial autocorrelation and concludes that there is absence of serial autocorrelation in our model. To test the existence of Multicollinearity we carried out variance inflation factor (VIF) and the mean VIF is 1.94, which shows the absence of severe Multicollinearity among explanatory variables.

Table 1

Results of Unit Root Test

ADF-Test

Variables	ADF Calculated Value at Level	ADF Calculated Value at First Difference	McKinnon Critical Value
LnDER	-2.219		-1.691**
LnDGDPR	-1.426		-1.307***
LnGFGDP	-4.539		-3.675*
LnTOT	-1.035	-4.132	-3.687*
LnREER	-1.345	-4.106	-3.689*
LnFRRI	-2.848		-2.441*
FPY	-4.080		-3.675*

*Note: *** statistically significant at 10% level of significance, ** statistically significant at 5% level of significance and * statistically significant at 1% level of significance.*

4.2. Regression Results

Table 2

OLS Regression results

Variables	Coefficient	Standard Error	T-Ratio	Prob. (p-value)
Debt service to GDP ratio	1.015234	0.1330117	7.63	0.000*
Terms of trade	-1.984226	0.4022054	-4.93	0.000*
Growth rate of foreign GDP	-0.0221809	0.0546203	-0.41	0.668
Foreign real interest rate	-0.3035358	0.162091	-1.87	0.071***
Real effective exchange rate	1.18892	0.2169126	5.48	0.000*
Fiscal position of government	2.975425	5.700675	0.52	0.606
Constant	-1.909858	0.966922	-1.98	0.058

R-Squared	0.7688
Adj R-Squared	0.7225
F- Statistics	16.62
Prob (F -Statistics)	0.0000
DW Statistics	1.7394
Mean VIF	1.94

*Note: *** statistically significant at 10% level of significance, ** statistically significant at 5% level of significance and * statistically significant at 1% level of significance.*

The empirical result reported in Table 2 indicated that debt service to GDP ratio is vital determinant of debt sustainability in Ethiopia. This ratio has the second most substantial positive effect on debt sustainability in Ethiopia next to real effective exchange rate. The positive coefficient in Table 2 confirms that 1 percent increase in debt service to GDP ratio leads to 1.015 percent increase in debt to export ratio. This relationship was found to be statistically significant at 1 percent level of significance. The positive coefficient of the ratio is consistent with what we have hypothesized and implies that improvement in debt service to GDP ratio has played a significant role in improving the external debt sustainability of Ethiopia which was measured by debt to export ratio. The result further implies that a positive GDP growth leads to augment the debt financing ability of the county and eventually maintains the sustainability of debt in Ethiopia.

The finding reported in Table 2 indicated that real effective exchange rate has positive effect on debt to export ratio or debt sustainability of Ethiopia. The size of the coefficient is much stronger than any other significant variables do in our model and is one of the major determinants of debt sustainability in Ethiopia. From hypothesis 2 we deduced that appreciation of real effective exchange rate leads to worsen debt to export ratio just as depreciation in contrary would improve. As the government of Ethiopia has been undertaking substantial devaluation in real effective exchange rate for many years, in our estimation, we find positive association between real effective exchange and debt to export ratio and verify the hypothesis that depreciation of real effective exchange rate improves debt to export ratio. This is why the result reported in Table 2 confirms that 1 percent increase in real effective exchange rate leads to 1.189 percent increase in debt to export ratio. This association was statistically significant at 1 percent level of significance. This finding generally implies that devaluation of real effective exchange rate improves debt

sustainability in Ethiopia when using debt to export ratio as measures of debt sustainability throughout the period of the study.

Looking into terms of trade, the finding of the study indicates that terms of trade has negative and significant effect on debt to export ratio. 1 percent increase in terms of trade leads to about 1.984 percent decreases in Ethiopian debt to export ratio. This association was statistically significant at 1 percent level of significance. From hypothesis 6 we inferred that an improvement in terms of trade leads to improve debt to export ratio just as deterioration in reverse would worsen. As reported in Table 2 we find a sturdy negative association between terms of trade and debt to export ratio. This finding confirms the hypothesis that deterioration in terms of trade leads to worsen the debt to export ratio. The rationale is that the Ethiopian terms of trade has been deteriorating as the demand for Ethiopian export goods are price inelastic and the prices of these commodities in the world market are steadily decreasing over the last many years. These sharp fluctuations had been deteriorating the terms of trade of Ethiopia overtime and ultimately worsened the debt to export ratio. Our finding is consistent with the earlier findings by Ajayi (1991) and Imimole et al. (2014).

As it is indicated in Table 2, the coefficient of foreign real interest rate is negatively correlated with the debt to export ratio of the country, which is in consistent to theoretical expectation and the finding by Ajayi, 1991. The reported estimate appears to be statistically significant at 10% level of significance. The coefficient of this variable implies averagely that 1 percent increase in foreign real interest rate leads to about 0.304 percent decrease in debt to export ratio, holding other variables constant. The reason behind this result has to do with theoretical argument that increases in foreign interest rate mean that developed countries are more willing to grant loan to these countries and high level of debt and hence, rise in the debt to export ratio. The result reported in Table 2 lend credence to this theoretical expectation and implies that rise in foreign real interest rate has lead to slightly worsened the debt to export ratio of Ethiopia compared to other significant variables included in our model. Looking into the size of the estimated coefficient of the variable, our result is in accordance with the finding of Mahmood, Rauf and Ahmad (2009) who found foreign interest rate has less significant effect on debt to export ratio.

The estimated results regarding growth rate of foreign GDP and fiscal position of government are reported in Table 2. The coefficient of

growth rate of foreign GDP was found to be negative being statistically insignificant. This result conflicts to theoretical expectation, hypothesis 3 and the empirical finding of Ajayi (1991). The coefficient of fiscal position of government has a positive sign and supports hypothesis 4, but it is statistically insignificant.

5. Conclusion and Recommendations

This paper has investigated the macroeconomic determinants of external debt sustainability in the Ethiopian economy using annual time series data that spanned from 1980 to 2016. A log-linear regression model was used to find the macroeconomic factors that determine external debt sustainability and the results of our estimation show that debt service to GDP ratio and real effective exchange rate have statistically significant estimates and are positively associated with external debt sustainability of Ethiopia which was measured by debt to export ratio. These imply that the improvements in debt service to GDP ratio and devaluation of real effective exchange rate significantly ameliorate and maintain the sustainability of debt in Ethiopia during the period of the study. Whereas terms of trade and foreign real interest rate were found statistically significant and have a negative relationship with external debt sustainability of Ethiopia which was measured by debt to export ratio. These imply that a further intervention through deteriorating the terms of trade at any time in the future would detrimentally worsen the external debt sustainability of Ethiopia just as a rise in the foreign real interest rate would do. The growth rate of foreign GDP was negatively associated to external debt sustainability being statistically insignificant. On the contrary, the fiscal position of government was positively associated to external debt sustainability but statistically insignificant.

The positive association that was found between debt service to GDP ratio and debt to export ratio is an indication that government must work hard in enhancing the debt servicing capacity without hamstringing the current copious economic growth and a due consideration should be paid to the issues of debt reduction, debt forgiveness and interest rate reduction to front the country on the path of sustainable external debt. Since devaluation of real effective exchange rate and improvement in terms of trade promote external debt sustainability in Ethiopia, cautious domestic macroeconomic

policies that will avoid overvaluing real effective exchange and deteriorating terms of trade should be designed and implemented.

References

1. Adepoju, A., Salau, A., & Obayelu, A. (2007).The Effects of External Debt Management on Sustainable Economic Growth and Development: Lessons from Nigeria, MPRA Paper, No. 2147.
2. Admasu, S. (2017). Productive Capacity and Economic Growth in Ethiopia, CDP Paper, No. 34.
3. Ajayi, S. (1991). Macroeconomic Approach to External Debt: The Case of Nigeria. AERC Paper, No. 8.
4. Ajayi, S. (2000). Macroeconomic approach to external debt: The case of Nigeria. In Ajayi, & Khan (Eds.), External debt and capital flight in sub-Saharan Africa (pp. 11–56). Washington, DC: International Monetary Fund.
5. Alemu, M. & Zenebe, G. (2011), Sustainable financing of Ethiopia's energy infrastructure: An economic analysis. Paper Presented in 9th International Conference on the Ethiopian Economy, Ethiopia, Addis Ababa.
6. Awan, A., Asghar, N., & Rehman, H. (2011). The impact of exchange rate, fiscal deficit and terms of trade on external debt of Pakistan. Australian Journal of Business and Management Research, 1(3), 10-24.
7. Awan, R., Anjum, A., Rahim, S. (2015). An econometric analysis of determinants of external debt in Pakistan. British Journal of Economics, Management and Trade, 5(4), 382-391.
8. Bader, M. & Magableh, K. (2009). An enquiry into the main determinants of public debt in Jordan: An econometric study. Dirasat Administrative Sciences, Vol. 36(1), 181-190.
9. Barungi, B., & Atingi, M. (2000). Growth and foreign debt: The Ugandan experience. In Ajayi, & Khan (Eds.), External debt and capital flight in sub-Saharan Africa, pp: 93–127.

10. Ejaz, K. & Javid, Y. (2011). An assessment of debt sustainability in scenario of Pakistan's debt burden, MPRA Paper, No. 37563.
11. Flynn, J. (2005). Ethiopia: what Can Be Done? Student Economic Review, 19, 253-263.
12. Greenidge, K., Drakes, L., & Craigwell, R. (2010). The external public debt in the Caribbean community. Journal of Policy Modelling, Vol (32), 418-431.
13. Granger, C. (1988). Some recent development in a concept of causality. Journal of Econometrics, 38, 199-211.
14. Hameed, A. & Ashraf, M. (2008). External Debt and its Impact on Economic and Business Growth in Pakistan. International Research Journal of Finance and Economics, 20, 132-140.
15. Hamilton, J. & Flavin A. (1986). On the Limitations of Government Borrowing: A Framework for Testing. American Economic Review, 76, 808-819.
16. IMF (2000). Debt and reserve related indicators of external vulnerability. IMF Policy Department Paper, Washington DC: IMF.
17. IMF (2002). Assessing Sustainability, prepared by the Policy Development and Review Department, SM/02/166.
18. IMF (2016). Consultation-Debt sustainability analysis. Available at: http://www.imf.org/external/pubs/ft/scr/2016/cr16322.pdf.
19. Imimole, B., Ehikioya, L., & Okhuese, M. (2014). Determinants and Sustainability of External Debt in a Deregulated Economy: A Cointegration Analysis from Nigeria (1986-2010). American International Journal of Contemporary Research, Vol. 4(6), 201-214.
20. Kebret, H. (2005). The Arithmetic of Debt Sustainability and Its Fiscal policy Implications: the Case of Ethiopia. In: Alemu and Yoseph (eds).
21. Kiptoo, Ch. (2012). The Determinants of Kenya's External Debt Sustainability. A Management Research Project submitted in partial fulfilment of the requirement for the award

of the Degree of Masters in Business Administration (MBA), school of Business, University of Nairobi, Kenya.

22. Mohammadi, H, Çak, M, & Çak, D. (2007). Capital Mobility and Foreign Debt Sustainability:
23. Some Evidence from Turkey. Applied Economics, Vol. 39, (19), 2441-2449.
24. Mahmood, T., Rauf, A., & Ahmad, K. (2009). Public and External Debt Sustainability in
25. Pakistan (1970s – 2000s). Pakistan Economic and Social Review, Vol. 47(2), 243-267.
26. Muhanji, S. & Ojah, K. (2011). Management and sustainability of external debt: A focus on the emerging economies of Africa. Review of Development Finance, 1, 184–206.
27. Muwanga-Zake, K. & Ndhaye, S. (2001). The HIPC (Highly Indebted poor Countries) Debt Relief Initiative Ugandas Experience. UNU-WIDER Discussion Paper, No. 94.
28. NBE (2017). National Bank of Ethiopia annual report of 2016/17. NBE, Addis Ababa, Ethiopia.
29. Pyeman, J., Noor, N., Mohamad, W., & Yahya, A. (2014). Factors Affecting External Debt in Malaysia: An Empirical Investigation. Proceedings of the first AAGBS International Conference on Business Management; 2014.
30. Safdari, M. & Mehrizi, M. (2011). External Debt and Economic Growth in Iran. Journal of Economics and International Finance, Vol. 3(5), 322-327.
31. Schclarek, A. (2004). Debt and economic growth in developing and industrial countries. Working Papers of Lund University, Department of Economics, pp 34.
32. Teklu, T. (2000). External Resources Mobilization and External Debt Situation, Paper presented at the Symposium for Reviewing Ethiopia's Socio-Economic Performance 1991-99.
33. Trehan, B. & Walsh, C.(1988).Common Trends, the Government's Budget Constraint and Revenue Smoothing.

Journal of Economic Dynamics and Control, Vol. 12 (2), 425-444.

34. Wyplosz, C. (2009). Debts sustainability assessment: the IMF approach and alternatives. Proceedings of United Nations Conference paper on Trade and Development, 2009, New York, USA.

LIMITATIONS OF OUTCOME BASED ACCOUNTING CURRICULUM IN ETHIOPIA

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Abstract

The demand for accounting profession is increasing from time to time because of the increase in complexity of the business environment. Education institutions are responsible to produce qualified and ethical accountant required by the accounting profession. Specifically, Technical and Vocational Education and training (TVET) colleges play great role in training lower and middle level accountant in Ethiopia. However, Academicians, practitioners and employers are raising concern on the quality and relevance of education and training given by TVET colleges. The major objective of this study is to examine the limitations of TVET in accounting curriculum in relation to relevance and contents of the competences included. The finding of the study showed that the existing curriculum has a lot of limitations in terms of relevance, coherence and content. As a result, the existing curriculum should be revisited in order to make it better.

Keywords: Accounting education, Competence based, Curriculum limitations, TVET

JEL Classification: M4

1. Introduction

Education is the most important tool to deal with the changing social and physical environments. It is a process designed to shape the knowledge, skills and attitudes necessary for individuals to manage the environment in which they live. Different organizations and individuals have indicated this fact. For instance, UNESCO (2002) stated that education is one of the most powerful instruments known for reducing poverty and inequality and for laying the basis for

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sustained economic growth. Especially, sustainable economic development, environmental protection, social and political development of a nation directly or indirectly depends on education. Derbessa (2000) also suggested that education should be a basis for developing the capacity to cope up with leading, evaluating and changing society in this information age. Further, he added that higher education institutions have greater contributions for the development of a country through supplying skilled and semiskilled man power.

Technical and Vocational Education and Training (TVET) is a part of the education system in Ethiopia that helps people to attain their full educational or professional potentials. TVET is one of the main components of Educational Sector Development Program (ESDP) policy for increasing the trained labour force related to the development of the country as a whole (MOE, 2015). In the same way, TVET also plays an equally important role in social, economic, and political development of a nation together with its academic counterpart. TVET plays a crucial role in human resource development of the country by creating skilled human resource, enhancing industrial productivity and improving quality of life. Strengthening the importance of TVET, Sharma (2008) indicated education is considered as a key to development whereas TVET is a master key because it has the ability to open all doors of the lifelong learning, reduce unemployment and improve the quality of living. These roles can be realized when competency based TVET program is applied properly.

One of the programs in TVET training system is the field of accounting. Accounting education can be described as training students about identifying, recording, summarizing, reporting, analysing, and auditing financial information that will steer the decisions in business. It consists of various subfields including; financial accounting, managerial accounting, government accounting, auditing and taxation, all of which aid in financial Reporting, economic planning, project appraisal, capital formation, property control and so on. The main function of accounting is to manage and provide information, primarily financial in nature, about economic entities that is intended to be useful in economic decisions. This information allows users to make reasoned choices among alternative uses of scarce resources in the conduct of business and economic activities. The need for accounting therefore arose in response to the desire to make judicious use of scarce resources, accumulate wealth and produce high quality goods and services in a competitive market environment.

To perform these roles, accountants are required both in number and in quality and this should be the function of the existing accounting education and training system.

An attempt to understand the future developmental requirements of accountants necessitates the study of the current status of accounting education. In connection to this, Carnegie and Napier (1996) argued that knowledge of the past and the present accounting education can facilitate an understanding of the future of accounting profession. They also noted that accounting education is worthy of studying because it puts accounting today into perspective and may well allow us to draw on the data bank of the past to provide solutions to the problems of the present and pave the right way for the future. Hence, the study of the current accounting education should start with evaluation of the strength and weakness of the existing curriculum.

The authors have undertaken a research on the topic "Outcome Based TVET in Accounting and the Professional Practices" in the academic year 2017/18. The objective is to identify the bottlenecks surrounding TVET in accounting in the country and provide appropriate suggestions for solving them. This article is part of the above-mentioned study specifically aimed to identify the limitation of currently working accounting curriculum at TVET level. Specifically, the evidence for the study is taken from the existing curriculum and sample respondents from TVET colleges in west Oromia. To achieve the purpose, the remaining part of this paper is structured as follows: Section two explains the research problem and objective of this manuscript, section three reviews related literatures, Section four presents the research design and methodology adopted in the study, Section five presents the analysis and discussion and finally section six concludes the paper.

2. Problem Statement

Accounting education and training has been under attack for many years resulting from rapid technological advances and growing market globalization (Lin et al., 2005). The function of today's accountant has changed from mere book-keeping of business operations to the provider and interpreter of diversified information to various internal and external users of financial information (Albrecht and Sack, 2000). Such developments require expanding the

knowledge and skills of accountants to meet the changing demands stemming from the new business environment.

Jeacle (2008) have pointed out the changing nature of accounting work over time and he calls for changes in the accounting curricula to reflect the needs and market demand in a changing business environment. In the past, accounting conventions mainly emphasized on quantitative recording, financial calculation and historical accounting for stewardship of resources (Parker, 2001). However, in the current turbulent world, technical accounting competences are not sufficient for educating professional accountants and needs to be complemented by other competencies such as; creative thinking, lifelong learning, and communication skills. Today, accountants are more involved than before in financial and business advisory services due to the increasing demand for financial and nonfinancial information in business decision. The changes in the role of the accounting functions are driven by the characteristics of the modern global business environment. Colleges and Universities should accordingly incorporate the market expectations to their accounting curriculum in order to ensure that accounting graduates are equipped with knowledge and skills required by the market. However, there are increasing criticisms that accounting education has lagged behind developments in the changing business environment (Madawaki, 2015).

In Ethiopia, employers complain that College accounting education and training has lagged behind and failed to prepare graduates adequately to deal with the challenges of discharging their professional responsibilities and they have to spend substantial time and resources to train newly recruited accountants. Reports on the Observance of Standards and Codes (ROSC, 2007), stated that accounting education in Ethiopia has been under-developed because of less developed educational system, lack of sufficient educational facilities, outdated text books for training of accountants and the accounting curricula is mostly restricted to accounting technicalities and basic procedural aspect of auditing. Thus, a gap exists between the acquired and required knowledge and skills for accountants due to the rapid changes in the market environment and the slow changes in the curriculum.

Previous studies have indicated the need for the accounting education change to reflect among other things the implication of changing demands of businesses. International Federation of

Accountants (IFAC) (2007) recommended that accounting curricula should include subjects designed to provide students with understanding of global issues affecting society and business environment. Evans (2012) argued that accountants and accounting students requires improved knowledge and skills in using Information Technology system. In a related study, Grayson (2004) opined that jobs outcomes should be connected to some extent to what graduates might learn in colleges and therefore argues that accounting curricula should reflect changes to meet job demands. Other accounting education studies have examined how accounting teachers can be motivated and what should be taught in classrooms (Madawaki, 2015).

Given the current focus on strengthening the accounting profession following the adoption of International Financial Reporting Standard (IFRS), the importance of developing and enhancing accounting education in Ethiopia has been repeatedly discussed. As a result, the accounting curricula for bachelor's degree in accounting and finance were harmonized among universities before five years. Hence, Ethiopian universities have made efforts to establish common minimum requirements for courses in accounting and finance. There is also a recent effort to revise this harmonized curriculum and incorporate IFRS in the syllabus. Further, there is an effort to build the capacity of accounting teachers at university by giving them short term training.

Contrary to undergraduate accounting curriculum, the major problem observed in curriculum development for TVET accounting training was the continuous and unpredicted change made in it without making detail investigation of its limitations. At the beginning, all curriculums and training materials were prepared centrally and used by all institutions with similar inputs and processes. That was changed shortly by occupational standards which were prepared for 10+1, 10+2 and 10+3 program. Lately, the development of the occupational standards has been re-categorized into five levels i.e. Level I, Level II, Level III, Level IV and Level V packages. This has created a feeling of discomfort on trainers/teachers and is seen as wastage of time and other resources. Some TVET teachers complain that the change was not based on detail study of the limitations of the former curriculum. Instead; it is based on the grant and support coming from aboard. Therefore, detail examination of the existing curriculum is required to suggest revision.

Further, it is an important part of the educational process that trainers in accounting recognise the local developments in the country. There are new Laws and legislations issued by the house of people's representatives and council of ministries in the recent years, such as the new Laws on IFRS and Taxation law. There is no formal means within the TVET colleges that communicate academic staffs about the new development. Therefore, each teacher uses his/her way to be aware of the new developments in the legal, economic and business environment nationally and globally. This has tremendous effect on the relevance and quality of accounting education offered at TVET colleges.

Some studies have examined the issue of what should be the knowledge and skills components of today's accounting education programs that can satisfy the demands for training future accountants at university level (Mihret & Bobe, 2014; Kidane, 2012; ROSC, 2007). In addition, the challenges of the existing TVET system were studied in general terms to some extent (Dadi, 2014; Solomon, 2011). But accounting education and training at TVET level in particular was relatively ignored. Hence, there is increasing recognition by all stakeholders such as teachers, students, employers, governments and society the need and utility of conducting research within TVET colleges in order to position such institutions for the challenges of the 21st century. The main objective of this study is to examine the limitations of the existing TVET in Accounting Curriculum. Specifically, the study is aimed to investigate the existing TVET in accounting curriculum in terms of relevance to local needs, to examine the existing TVET in accounting curriculum in terms of its content as compared to international standard and to identify competences that were not usually covered in the curriculum and the reasons behind.

This type of research is made for a single purpose: to identify weaknesses in order to plan for improvements. Thus, findings of this study will have some basic contributions in providing valuable information on the actual implementation and effectiveness of competency based TVET curriculum.

Currently, the government is studying the whole education system in the country in order to make improvement in the future. This specific study is planned to provide policy input for revisiting TVET in accounting education and training program.

3. Literature Review

Accounting education can be defined as educating students in determining, collecting, recording, summarizing, reporting, analysing, and auditing financial data that will steer the decisions in business. The accounting profession like many others has been affected by rapid economic and technological developments of national and global environment. Pressures for change come from many sources, including globalization, advances in technology, business complexity, societal changes, and the expansion of stakeholder groups, including regulators and supervisory bodies as well as the broader community. To meet the needs created by these changes and developments, an efficient accounting education is imperative.

The primary goal of any education aimed at preparing students to become accounting professionals must equip them reasonably well through college education and smooth their entry to the world of work. The goals set for accounting education directly determine the training orientation and professional curriculum settings through which the accounting professional will be produced. The objectives of accounting program should be consistent with the entity of which it is a part. The implication of this observation is that an accounting program and, by extension, accounting education must be responsive to the parent institutions and constituencies that are interested in accounting education and which it serves. In addition to be consistent with the goals of stakeholders and interested entities, accounting goals and objectives should be specific enough to permit measurement of achievement and inform decisions regarding the operation of the particular accounting education program.

The function of accounting is to provide quantitative information, primarily financial in nature, about economic entities that is intended to be useful in making economic decisions in making reasoned choices among alternative courses of action. The profession offers accounting, bookkeeping, tax preparation, auditing, and financial information to help people make better decisions. Accounting is not merely the language of the enterprise, informing supervisors, but a significant mover of a country's economic development. It is a service activity whose purpose is to divulge information, especially financial to help individuals, investors, businesses, and policy makers make better decisions.

The International Federation of Accountants (IFAC) is a global organisation committed to protecting the public interest by formulating high-quality international standards, promoting strong ethical principles, upholding quality practice, and supporting the development of all sectors of the accounting profession around the world. It comprises 167 professional bodies of accountants in more than 127 countries and has more than 2.5 million individual members (IFAC, 2012).

The International Accounting Education Standards Board (IAESB) of the International Federation of Accountants (IFAC) in its revised standards document emphasizes that:the aim of International Education Standard is to ensure that candidates for membership of an IFAC member body have enough advanced professional accountancy knowledge to enable them function as competent professional accountants in an increasingly complex and changing environment. The standards outline that the primary knowledge part of professional accounting education programs should fall under three major headings: (a) Accounting, finance and related knowledge; (b) Organizational and business knowledge; and (c) Information technology knowledge and competences. The aims of these standards are to prescribe the range of professional knowledge, professional skills, professional values, ethics and attitudes required, develop an attitude of lifelong learning, focus on learning outcomes, and promote consistency and convergence in accounting education (IFAC,2012).

IAESB issued nine International Education Standards (IES). The IESs are used as benchmarks for the preparation and continual development of professional accountants worldwide. One of the main objectives of IESs is to assist accounting educators internationally in ensuring that accounting students develop and demonstrate the competences needed to meet the expectations of the communities they serve. In general, IESs establish the essential elements that education and development programmes are expected to contain and that have the potential for international recognition, acceptance and application (IFAC, 2012). Of particular interest for this research are the IESs that set the content of accounting education programmes which are IES2 knowledge, IES3 skills and IES4 values, ethics and attitudes.

The knowledge these accounting students need to acquire are prescribed in IES2, "*Content of Professional Accounting Education Programmes*", which consists of knowledge in the area of accounting and finance; organisation and business; and information technology

(IES, 2008). This body of knowledge should be gained through intensive courses which should take at least two years of full-time study or the equivalent. However, IES2 only sets out broad subject headings on the premise that accountants will need to continually update their knowledge, as the body of knowledge and local conditions change and as the world's business environment changes. In IES2, IFAC emphasises that the accounting curriculum is itself changing and will continue to change in response to rapidly changing market demands. New topics are entering the curriculum and the relative emphasis among topics is changing (IFAC, 2012).

Skills that accounting students should acquire are prescribed in IES3, "*Professional Skills and General Education*". The skills are classified into five main groups: intellectual skills; technical and functional skills; personal skills; interpersonal and communication skills; and organisational and management skills. 'Skills' competency can also consist of four soft skill-areas that have been identified in a number of research studies and comprise the following: communication skills; creative thinking and problem-solving; teamwork and leadership; management of change (IFAC, 2012). However, IFAC acknowledges that this classification of skills is not exhaustive as skills have been classified and described in various ways. IES3 also explains how general education can contribute to the development of these skills (IFAC, 2012).

Values, ethics, and attitudes are considered crucial for accountants to exercise professional judgment and act in an ethical manner that is in the best interests of society and the profession. IES4 "*Professional Values, Ethics and Attitudes"* emphasises that accounting education programmes should lead to a commitment to:

- the public interest and sensitivity to social responsibilities;
- the IFAC Code of Ethics, or its local equivalent;
- continual improvement and lifelong learning;
- reliability, responsibility, timeliness, courtesy and respect;
- laws and regulations.

'Values' competency represents attributes, behaviours and abilities that provide foundations for moral and ethical performance of professional work and responsibilities on which 'Technical competence 'and 'Skills' are based. Prior research and other works on this area suggest that 'Values' include the following competence areas: professionalism, conceptual foundations of ethics, and ethical decision making. To serve the public interest and society, professional

accountants ought to perform their work with integrity, due care, pubic trust, and other ethical norms of the profession and the society (IFAC, 2012). If future professional accountants are to perceive professional values, ethics and attitudes as important to their work, it is essential that they do not perceive the treatment of professional values, ethics and attitudes as only peripheral to their main education programs. Therefore, professional values, ethics and attitudes need to be treated in their own right with in the curriculum (IFAC, 2012).

The accounting education and training is identified in the literature as one of the earliest to adopt Competency based Education and Training (CBET) approach. Many professionals even suggested that accounting is one of the "technical" disciplines that is appropriate for a CBET approach. Competencies pertaining to accounting are broadly defined as a set of attributes, behaviours, abilities, and technology embodied in sufficient technical competence, skills, and values and their integration that will enable professional accountants to serve the society and public interest by performing their professional duties and responsibilities effectively and efficiently and creating/sustaining their differential advantage. The IAESB has now stressed and adopted competency approach to accounting education which specifies an outcomes-based approach in integrating technical competence, professional skills, and professional values, ethics, and attitudes (IFAC, 2012).

IFAC (2012) defines technical competence as the ability to apply professional knowledge to perform a role to a defined standard. IES2 gives 11competence areas as well as learning outcomes and minimum proficiency level associated with each area. This competency category comprises functional and other knowledge and abilities included traditionally in accounting subject-areas. The competence areas pertaining to Technical-competences are classified into two sub-types as follows: (a)Technical competence ‘Accounting’, and (b) Technical competence ‘Broad Societal and Business Perspectives’. The following competence areas are for Technical competence ‘Accounting’: financial reporting and analysis, management accounting and control, income tax accounting, accounting information systems and IT, audit and assurance, enterprise risk management and governance, accounting for non-profit organizations, and strategic accounting and auditing.

Technical competence ‘Broad Societal and Business Perspectives’ has the following competency areas: liberal arts,

business and organizational environments and systems, business laws and regulations, strategic management and organizational behaviour, corporate finance and financial management, international business and globalization, and quantitative business analysis and modelling (IFAC, 2012).

Accounting education can be looked at from two perspectives, it can be used to describe education for accountants, in other words, those instructions designed to be necessary for potential accountants to acquire in order to gain their professional qualifications. It can also be used to describe the expansion and extension of knowledge and the development of judgement of those who have already become accountant. Thus, to maintain professionalism, accountants must be abreast with the release of both local and international standards and emerging theoretical postulations. With the continuous development of standards, new accounting procedures, and changes in the business and economic spheres coupled with the risk of being found negligent and therefore incompetent in the discharge of his duties, a professional accountant who neglects the need for accounting education does so at the risk of his profession.

The curriculum development phase involves 'what, why, who, with, where, and when' facets. Literature on curriculum change indicates that successful curriculum implementation depends entirely on teachers who are regarded and who regard themselves as active agents in shaping policy as their understanding and interpretation of policy are translated into classroom practices. However, teachers' belief systems, experiences and ideologies affect how receptive to curriculum change they are likely to be. According to Ballet & Kelchtermans (2008), teachers do not simply implement curriculum change; they interpret and modify it according to their different frames of experience. Consequently, they respond to curriculum change in different ways. Fullan (2001) argues that experienced teachers tend not to change their current practices easily because these are rooted in their beliefs and in the practical knowledge they have accumulated during their years of teaching. So, while changes in the curriculum theoretically require teachers to make significant shifts with respect to its content and their instructional methods alike, in practice many teachers either resist implementing curriculum change or adapt the curriculum to suit their own practices. This means that they choose to assimilate teaching strategies into their current practices with minimal substantive change (Spillane, Reiser& Gomez, 2006).

When a totally new education program is being developed, the job, task and competence information can be used in a free way to define the key educational objectives, course titles, learning outcomes and to specify course content and assessment strategies. In many education development projects however, a curriculum needs to be revised, which is far more complex than developing a new one.

Changing a given curriculum has implications for the contributions of departments, teams and teachers, and often goes against the regarding interests of the groups and individuals involved. Therefore, curriculum revision goes hand in hand with resistance against change and advocating current practices or at least defending the contribution of the given content-matter domains.

Ethiopia is committed to participate in the competitive global market economy. This requires technical and professional citizens trained in specific occupations. Hence, TVET is often at the centre of Ethiopia's education strategy, which is aimed at the development of marketable entrepreneurial skills. Ethiopia is putting in place, in part via TVET, a comprehensive human resource development program. TVET provides training on market-oriented programs based on the demands of industries for various target groups, such as: graduates of grade 10, school leavers, people who are in employment, school drop outs and marginalized groups in the labour market.

The fifth Educational Sector Development Program (ESDP V) states that the goal for TVET is to produce a lower and middle-level, competent, motivated, adaptable and innovative workforce, which can contribute to poverty reduction and social and economic development through facilitating demand driven, quality TVET and transfer of demanded technology. The document further states the policy objective is to increase the quantity and quality of effective and accredited TVET and to increase the relevance of TVET in terms of courses and technologies developed and transferred to industry. TVET in Ethiopia seeks to create competent and self-reliant citizens that contribute to the economic and social development of the country, thus improving the livelihoods of all Ethiopians and sustainably reducing poverty (MOE,2015).

The mere expansion of TVET does not solve the problems of unemployment and low productivity of the economy. TVET has to respond to the needs of the labour market and create a competent, motivated and adaptable workforce capable of driving economic growth and development. The 2008 Ethiopian National TVET Strategy

replaces an older version, the Ethiopian Education and training policy, which was first adopted in 2002. It reflects an important paradigm shift in recent years which places quality and relevance of TVET as its priority. The strategy was developed with the involvement of a broad range of stakeholders from both the private and public sectors. It defines the major principles of TVET development in the coming years. TVET development relies on an outcome-based system, which depends upon the cooperation, dedication and trust of its stakeholders (Edukans Foundation, 2012.

Occupational standards are particular descriptions of what an individual is expected to be able to do in his or her work role. They are defined in terms of ideal benchmarks against which competence is assessed and certifications granted. It is also defined as the competences of a worker according to requirements in the labour market. Competences include the entire range of skills, knowledge and attitudes necessary to perform a specific job. Occupational standards will be developed for all occupational fields at all relevant qualification levels attainable within the TVET system. Theoretically, relevant competences should be incorporated in the TVET accounting curriculum. This study has planned to examine whether the competences in accounting are relevant and adequate for the middle level accounting profession.

4. Research Design and Methodology

This study used descriptive research design. The rationale for the choice of the descriptive design is to collect factual information that would explain existing situations; make comparisons and evaluations; identify special problems or justify existing conditions or practices; and to determine what other people are doing about similar problems and to make suggestions for future courses of action. Descriptive research uses people and other written sources of information to describe, clarify, and interpret aspects of education as they presently exist.

The choice of data collection method is mostly based on the purpose of the study and the research question. To achieve the research objective, the study used different methods of data collection including survey questionnaire, Interview with key informants and Document review. Such mixed method helps to triangulate qualitative and quantitative data sources and provides a better, more substantive picture about the topic understudy.

Semi structured interview were made with key informants. This includes trainers, college deans and an expert from Oromia TVET agency who are expected to implement the findings as well as those who are responsible for guiding the implementation effort. The respondents were selected from six TVET colleges in west Oromia including Jimma, Agaro, Mettu, Nekemte, Riftvalley and DandiBoru TVET colleges. Accordingly, data for this study were collected from 21 Accounting trainers and 4 TVET college Deans. The following Table 1 shows the characteristics of trainers that participated in the study.

Table 1

Characteristics of Respondents

a) Name of College	Frequency	%	b) Educational level	Frequency	%
Jimma TVET College	3	14	Master Degree	4	19
Rift Valley TVET College	6	29	BA Degree	12	57
DandiBoru TVET College	4	19	TVET Diploma	5	24
Agaro TVET College	2	10	c) Specialization		
Mettu TVET College	2	10	Accounting & Finance	13	62
Nekemte TVET	4	19	Management	5	24
Total	21	100	Other Fields	3	14

Source: Survey data, 2018

In addition to the semi structured interview, the existing TVET curriculum at each Level, statistical data from Oromia TVET agency, Policy documents and other pertinent secondary sources were intensively used in the study.

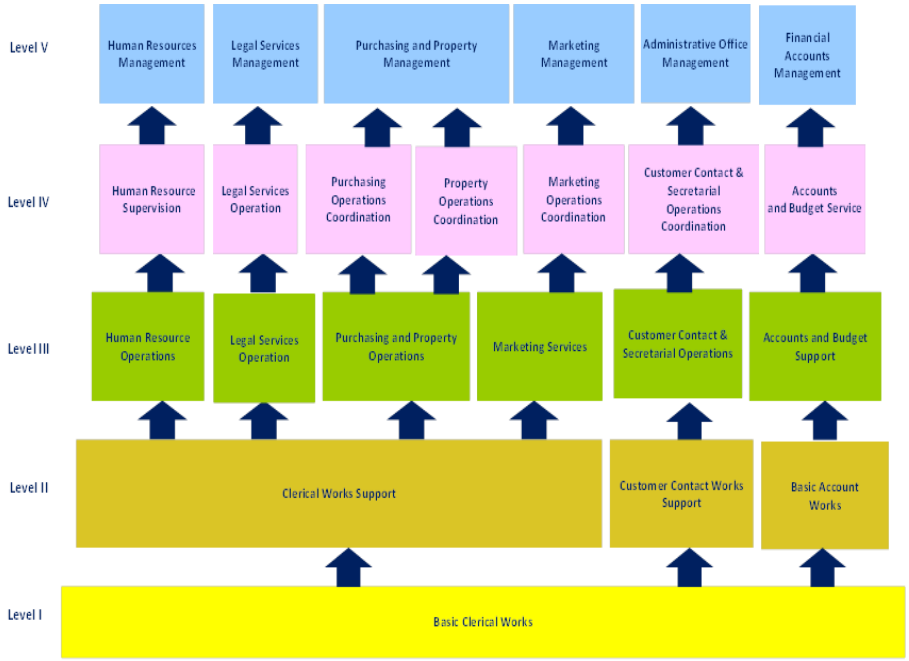
5. Result and Discussion

Since the introduction of competency-based training in Ethiopia in 2008, TVET education sector has implemented two Ethiopian Occupational Standards (EOS). The new EOS, which has been effective since 2012, commenced in six broad sectors including: economic infrastructure, health, agriculture, industry development, culture, sport and tourism, labour and social affairs sectors. Among the available TVET sectors, Economic Infrastructure is the main focus of this study. Economic infrastructure sector incorporates Business and

Finance sub-sector. Basic Clerical Work (Level I) is one of occupational standards found under Business and Finance sub-sector that every trainee has to go through before they start to study their area of specialization. All economic infrastructure sectors should pass through this level. Basic accounts Work (level II), Account and Budget support (Level III), Account and Budget service (level IV) and financial accounts management (Level V) occupational standard are the area in which trainees will specialize in accounting area. Under level III, Level IV and Level V; trainees are expected to have specialties' in accounting and expected to work without supervision in the work place. The following figure 1 shows the different levels in TVET training system under economic infrastructure in general and accounting in particular at the moment (Edukans Foundation, 2012).

Figure 1

Levels of Training in Economic infrastructure



Source: Edukans Foundation, 2012

The focus of a programme should extend beyond technical skills and emphasize the personal capacities of students to interact well

with one another, assume responsibilities, reason logically, think creatively, embrace ethical standards and conduct and communicate effectively. Hence accounting curriculum for each occupational standard must be structured to achieve this objective. The curriculum for the accounting profession must produce candidates who have acquired broad array of skills which include interpersonal, communication, intellectual and other skills for public accounting. Future accountants must also possess knowledge in organizational administration, business, accounting, auditing apart from general knowledge.

International accounting standard further set out that accounting students need to acquire a set of knowledge, skills, values, ethics and attitudes and have the ability to integrate them together. The knowledge these accounting students need to acquire consists of Professional Accounting Education Programmes, which includes of knowledge in the area of accounting and finance; organisation and business; and information technology. In addition, trainee should be acquainted with hard and soft skills required in their professional duty. Value and Ethics plays critical role especially in accounting. In line with this, the TVET curriculums for each occupational standard were analysed in order to see to what extent the competences included at each level consists of the three basic components which comprises Knowledge, skill, ethics and value.

Table 2

Summary of Competences in the Existing Curriculum

Levels	Accounting & Finance	General Business	Organizational & personal skill	IT Skill	Value and Ethics	Total
Level I	0 (0%)	4 (27%)	6 (40%)	3 (20%)	2 (13%)	15
Level II	8 (57%)	1(7%)	4 (29%)	1 (7%)	0 (0%)	14
Level III	15 (60%)	3 (12%)	6 (24%)	2 (8%)	0 (0%)	25
Level IV	12 (52%)	2 (9%)	5(22%)	2 (9%)	2 (9%)	23
Level V	10 (59%)	5 (29%)	1(6%)	0 (0%)	1(6%)	17
Total	45 (48%)	15 (16%)	22 (23%)	8 (9%)	5 (5%)	94

Source: Own summery from the currently working curriculums

Table 2 above clearly vivid that there is no any accounting and finance related competences at level I. The curriculum gives high emphasis to organizational and personal skills, general business and information technology skills. There are two competences that are related to value and ethics. Accounting and Finance was given no

attention at this level may be because trainees who complete level I are expected to serve as clerk in private and government offices which does not require profound knowledge and skills in accounting.

At level II, 57% of the competences are related to accounting and finance. Organization and personal skill got the next attention at level II and General business and IT skill are following respectively. At this level, there are no competences that are related to ethics and value at all. Trainees that complete this level are expected to work as record keeper (accounts work).

Accounting and finance comprise of 60% of the competences at level III. 24% are related to organizational and personal skills. The remaining 12% and 8% are related to general business and IT skills. There are no competences that are related to ethics and value at this level. Trainees that complete this level are expected to support senior accountants in the area of record keeping, budgeting and accounts.

At level IV, 52% of the competences are related to accounting and finance. 22% of the competences are related to organizational and personal skill. General business, IT skill and Value and ethics each accounts about 9%. Trainees that complete this level are expected to work independently in the area of budget and account services.

Level V curriculum contains 59% competences that are related to accounting and finance. 29% of the competences are related to general business. And the remaining two competences are related to organizational and personal skills, ethics and value. Trainees who complete this stage are expected to work as financial accountants and managers.

Accounting professionals can perform their jobs in many different fields including auditing, taxation, managerial accounting, financial planning, consulting and bookkeeping (Armstrong, 2002). In each of these areas, financial statements must be applicable and presented adequately to facilitate rational decision-making in economic systems. Economic systems are therefore founded on the accurate reports of the financial value of traded entities, and these essential reports are prepared by accountants. Accounting as a career is a technique as well as an art (Armstrong, 2002).

Accounting professionals usually face a number of different situations requiring significant ethical judgments. They themselves recognize that there are a lot of available opportunities in their work to engage in immoral behaviours to acquire some personal benefits. Any unethical behaviour in accounting will somehow lead to a failure in

economic systems. As a result, various bodies attempt to sketch the map of accounting ethics to guide accounting professionals in an ethical method when they face ethical judgment problems. The accounting ethics literature indicates that the scope of studies on accounting ethics extends from auditor independence to the morality of capital markets (Mele, 2005).

Table 2 above further shows, trainees in Accounting who will complete level V are expected to take 48% accounting related competences, 16% general business-related competences, 23% organizational and personal related competences, 9% IT skill related competences and 5% ethics and value related competences. This indicates the low attention given to ethics and value in the TVET in accounting curriculum. According to IES4, Values, ethics, and attitudes are considered crucial for accountants to exercise professional judgment and act in an ethical manner that is in the best interests of society and the profession. IES4 further emphasis that Professional Values, Ethics and Attitudes emphasises that accounting education programmes should lead. On the other hand, graduates of TVET in accounting are working as casher, store keeper, accountant, auditing etc. These occupations in turn require ethical values and behaviour by their nature. If the accountant is not ethical, the resources of the organization will be at risk since it might be misappropriated.

In a curriculum design, it is suggested that knowledge and skills should be designed in spiral way. At lower level, basic knowledge and skills should be introduced in order to serve as a base for knowledge and skills at higher level. When we see the detail competences at each level in the TVET program, the following limitations can be observed. First, the link between competences in accounting and finance, general business and IT skills among the five levels is very low. Second, in some of the competences, higher kevel knowledge and skill were presented without having basic concepts at lower level. For instance, accounting students should be introduced with the basics of analysing business transaction and the rule of debit and credit at level I before they are thought about preparation of financial report and other related competences at higher levels. Finally, the arrangement of the competences at each level seem very random in which there is no logical flow among the different competences from simple to complex.

In addition, as one can see from the composition of the existing curriculum, the number of competences in each level is not the same. In level III and IV, there are too many competences. Where as in level

I, II and Level V, the number of competences is relatively small. This will have an impact on the successful completion of the competences at each level. Another limitation in the TVET accounting program is that none of the colleges started training students at level V. Although the curriculum is already prepared, they did not start implementing this curriculum since none of them have got the status of polytechnic college.

The above analysis is made based on the written curriculum at each level. Further, the trainers and deans who are implementing this curriculum were requested to give their opinion on the deficiencies of the existing curriculum. With this respect, trainers were requested to give opinion on the limitation of the current accounting curriculum and their response is summarized in Table 3 below.

Table 3

Limitations of the Current TVET in Accounting Program

Which of the followings do you believe are major challenges of TVET in accounting program?	%	What deficiencies have you seen in the current TVET in accounting curriculum?	%
Shortage of training budget	62%	Professional experts did not participate	67%
Lack of labour market information	43%	It is directly copied from another country	57%
Absence of need assessment	24%	other stakeholders did not participate	43%
Theoretical method of instruction	19%	It is not relevant to our country	33%
Law quality students	14%	Time shortage to cover all competences	33%
Total	100%	Total	100%

Source: Survey data, 2018

Table 3 above vivid that shortage of training budget, lack of labour market information and absence of training need assessment are the top three challenges in accounting program respectively. Trainers complain that in the currently working curriculum, professional experts did not participate sufficiently, it is directly copied from another country, other stakeholders didn't participate, topics are irrelevant to our countries context and it is too bulky to cover in the given time period.

Specifically, with respect to relevance, when we see the competences at each level, most of them are directly copied from

Australia. For instance, there are concepts and terminologies that are not popularly used in Ethiopia which were directly copied from Australian curriculum. Australia and Ethiopia are different in terms of legal, economic and cultural setting which will need different knowledge and skill in the training area. Taking experiences of developed countries might be good but it should be customized to our country's context. With this respect, Bennett et al. (2004) studied the five developing countries consisting; Zimbabwe, Nicaragua, Guatemala, Vietnam and Tanzania and advised the necessity of recognising the country context to adequately train finance personnel. Further, Enthoven (1991) stated that Accounting education structures and activities should take into account socioeconomic objectives. It is not very beneficial to copy educational systems from abroad without assessing them in the light of a country's requirement. Accounting education and educators should answer such basic questions as: what are the country's accounting information needs? What are the available skills and data? What sort of and how many accountants do we have to educate for the short, medium, and long term?

The TVET deans interviewed mentioned the following problems in relation to the curriculum. The curriculum was not prepared by relevant professional, aged trainers have difficulty of adapting to this new curriculum, Although C level trainers can be assigned as a teacher, they are usually unable to prepare teaching material for their trainees, In addition, they mentioned that repetition of the competences, not strictly following the curriculum in private colleges and less attention given to economic infrastructure occupations were challenges. Especially private owned colleges are victims of these problems.

Further, trainers were requested to indicate competencies that were not covered because of different reasons in Level III and Level IV. Table 4 below summarize the response of the trainers.

Table 4

Competencies not covered in Level III and Level IV

Level III (Accounts and Budget Support)		Level IV (Accounts and Budget Service)	
Maintain Automatic Teller Machine (ATM) Services	48%	Perform Cost Accounting	24%
Produce Spreadsheets	38%	Provide Management Accounting Information	24%
Maintain Quality System and Continuous Improvement Processes (Kaizen)	33%	Perform Accounting for Governmental and Not-for-Profit Entities	24%
Handle Foreign Currency Transactions	29%	Perform accounting for decentralized operations	24%
Deliver and Monitor a Service to Customers	24%	Operate a computerized Accounting System	24%
Monitor Implementation of Work plan /Activities	24%	Maintain Fixed Assets & Inventory Records	14%
Apply Quality Control	24%	Perform Auditing & Reporting	14%
Lead Work place Communication	24%	Perform Accounting for Partnership & Corporate forms of business	10%
Process Financial Transactions and Extract Interim Reports	19%	Prepare Tax Returns	10%
Administer Subsidiary Accounts and Ledgers	19%	Maintain Expenses and Recording Payments	10%
Design and Produce Business Documents	19%	Record Income and Receipts	5%
Process Payment Documentation	19%	Maintain Cash and Receivables	5%
Process Applications for Credit	19%	Record Income and Receipts	5%

Source: Survey data, 2018

As can be clearly seen from the above Table 4, Maintain Automatic Teller Machine (ATM) Services, Produce Spreadsheets, Maintain Quality System and Continuous Improvement Processes (Kaizen) are the top most competencies at level III that were not covered most of the time. Cost accounting, management accounting, computerized accounting, fund accounting are the most common competencies that were not covered most of the time. The reasons for not covering these competence as mentioned by the trainers include; irrelevance of some competences to Ethiopian cases, large number of competences in each level, redundancy of some competencies, irrelevance of some competences, lack of reading material on some competences, lack of experts on some competences such as

computerized accounting and ATM Machine, focusing on COC related competences, shortage of time and budget and time spent on meeting. Although some trainers are not covering the existing competencies, when asked additional competencies that should be incorporated, they suggested the following additional competencies. The top three competences suggested by trainers include IFRS, mathematics and English, and Agricultural accounting.

6. Conclusion and Recommendations

International accounting education standard set out accounting students need to acquire a set of knowledge, skills, values, ethics and attitudes and should have the ability to integrate them together. Specially, Value and Ethics plays critical role in accounting since it is related to management of money. Analysis of the existing TVET curriculum found that there very few competences that are related to professional ethics and value. This indicates the low attention given to ethics and value in the curriculum itself. If future professional accountants are to perceive professional values, ethics and attitudes as important to their work, it is essential that they do not perceive the treatment of professional values, ethics and attitudes as only peripheral to their main education programs. Therefore, professional values, ethics and attitudes need to be treated in their own right within the training framework. Ethics and value competences should be included in the curriculum by integrating with core accounting competences such as financial reporting, taxation and auditing. This will enable students to appreciate the use of ethics and value in the actual work environment.

With respect to coherence, the current working TVET in accounting curriculums at each level have the following limitations. First, the link between competences in accounting and finance, general business and IT skills among the five levels is very weak. Second, in some of the competences, higher level knowledge and skill were presented without introducing basic concepts at the lower level. Finally, the arrangement of the competences at each level seem very random in which there is no logical flow among the different competences from simple to complex. It is better to arrange all the competences in logical order. Customizing all of the competences to Ethiopian context is also required.

Assessment of the existing TVET curriculum indicated there are areas that will have to be updated in the curriculum in order to prepare graduates for enhanced requirements in the actual accounting and auditing practice. For instance, the curriculum does not include international components in accounting (IFRS) and auditing (ISA). Specifically, the TVET accounting curriculum was mainly adopted from Australia and lacks local relevance in most of the competences. Ethiopian economy is mainly based on agriculture. Especially, west Oromia region is known with production of coffee and there are significant numbers of investors engaged in coffee production. However, the curriculum at all levels lacks some relevant competences such as agricultural accounting. Therefore, it plays vital role to incorporate agricultural accounting competences in the curriculum. Further, language and quantitative method competences should be incorporated in any of the five levels to increase the generic skills of the trainee.

The majority of the trainers responded that significance number of competences from level III and Level IV are not covered adequately. Maintain Automatic Teller Machine (ATM) Services, Produce Spreadsheets, Maintain Quality System and Continuous Improvement Processes (Kaizen) are the top most competencies at level III that were not covered most of the time. Cost accounting, management accounting, computerized accounting, fund accounting are the most common competencies that were not covered most of the time at Level V. This will negatively affect the quality of training at TVET Colleges and has negative effect in professional task in the work environment. Budget shortage is a cause for not providing training all year round and at full capacity in TVET centers. Some of the competences require facilities and the colleges have no sufficient budget. It is also affecting the quality of training provided in the regular program. In addition to government and NGO support, training centers themselves have to generate their own fund and try to supplement the formal budget allocated by the government.

The study revealed the shortcomings of competency based TVET in accounting curriculum and lack of training material. Well-developed accounting training materials are lacking in the TVET centers. This is due to trainers' inability to prepare their own training materials. As a result, it becomes advisable if TVET agencies and TVET institutions jointly engage stakeholders with profound knowledge of occupational standards, different educators, curriculum experts and

industry experts in the preparation of competency based TVET curriculum materials. In this regard, Jimma University accounting and finance department should take the leading role and other stakeholders should provide support in arranging training on how to prepare training material especially on the technical aspects.

References

1. Albrecht, W. S., & Sack, R. J. (2000). Accounting education: Charting the course through a perilous future. Accounting Education Series (No. 16). Sarasota, FL: American Accounting Association.
2. Armstrong, M. B. (2002). 'Ethics and Professionalism in Accounting Education: a Sample Course', Journal of Accounting Education, vol. 11, no. 1, pp. 77-92. http://dx.doi.org/10.1016/0748-5751(93)90019-
3. Ballet, K. & G. Kelchtermans 2008. Workload and Willingness to Change: Disentangling the Experience of Intensification. Journal of Curriculum Studies 40,1: 47-67
4. Bennett, M., Bouma, J. J. & Ciccozzi, E. (2004). An institutional perspective on the transfer of accounting knowledge: a case study. Accounting Education: an international journal, 13:3, 329-34
5. Carnegie, G.D. & Napier, C. J. (1996). Critical and interpretive histories: insights into accounting's present and future through its past.' Accounting, Auditing and Accountability Journal, 9:3, 7-39
6. Dadi L. (2014). Effectiveness of Competency - based TVET Curriculum in Ethiopia: The Case of TVET Institutions of Oromia Regional State (Ph.D. Thesis) Addis Ababa University, Ethiopia
7. Derbessa D. (2000), Introduction to Curriculum Development and Construction A.A. U.(Unpublished).
8. Enthoven, A. J. H. (1991). Accounting in Developing Countries.' In C. Nobes, & R. Parker, (Eds), Comparative International Accounting, Prentice Hall International

9. Edukans Foundation (2012). Technical and Vocation Education and Training (TVET) mapping in Ethiopia final Report. Learn for work Schkoland Program for Work
10. Evans, E., Burritt, R., and Guthrie, J. (2012). Emerging Pathways for the next Generation of Accountants. Sydney and the Centre for Accounting, Governance and Sustainability; Adelaide: The Institute of Chartered Accountants in Australia; University of South Australia.
11. Fullan, M (2001), The new meaning of educational change, 3rd edn, Teachers College press, NY
12. Grayson, J.P. (2004). The consequences of early adjustment to university
13. IFAC. (2012). International Education Standards 1-9. New York: IFAC.
14. Jeacle, I. (2008). Beyond the Boring Grey: The Construction of the colourful Accountant. Critical Perspectives on Accounting, 19(2), 1296–1320.
15. Kidane F. (2012). Accounting and Auditing Practices In Ethiopia: Review, Analysis, And Conclusions
16. Lin, Z. J., Xiaoyan, X. & Min, L (2005). Knowledge base and skill development in accounting education: Evidence from China. Journal of Accounting Education 23(3), 149-169.
17. Madawki (2015). Accounting Education in Nigeria Universities and the Changing Demands of the Accounting Profession. Southern African Accounting Association (SAAA) And International Association for Accounting Education & Research (IAAER) Biennial Conference In East London, South Africa
18. Mele, D. (2005). Ethical education in accounting: Integrating rules, values and virtues. Journal o f Business Ethics, 57(1), 97-109. http://dx.doi.org/10.1007/s10551-004-3829-y
19. Mihret, D. G. and Bobe, B. J. (2014), Multiple informal imperial connections and the transfer of accountancy to Ethiopia, Accounting history, vol. 19, no. 3, pp. 309-331.

20. Ministry of Education (MOE)(2015). Education Sector Development Program V, Addis Ababa
21. Ministry of Education (MOE) (2012) Technical and Vocation Education and Training (TVET) level I – V Curriculums, Addis Ababa
22. Parker, L. D. (2001). Back to the future: the broadening accounting trajectory.' *The British Accounting Review*, 33:4, 421-453.
23. ROSC (2007). Report on the Observance Of Standards And Codes (ROSC) Ethiopia. Addis Ababa.
24. Sharma, A. (2008). Technical Vocational Education and Training (TVET) in Africa, Addis Ababa, AU
25. Solomon M. (2011). Challenges for Technical and Vocational Education and Training (TVET) in Ethiopia, St. Marry University.
26. Spillane, J.P., B.J. Reiser & L.M. Gomez (2006). Policy Implementation and Cognition: The Role of Human, Social, and Distributed Cognition in Framing Policy Implementation.
27. UNESCO. (2002). *Technical and Vocational Education and Training in the Twenty First Century*: New Roles and Challenges for Guidance and Counselling. Paris: UNESCO.

ANNEX

Occupational Standards of TVET in Accounting Curriculum (Level I – V)

Basic Clerical Works (Level I)	**Basic Account Works (Level II)**	**Accounts and Budget Support (Level III)**	**Accounts and Budget Service (Level IV)**	**Financial Accounts Management (Level V)**
Participate in OHS Process	Work Effectively in the Financial Services Sector	Process Financial Transactions and Extract Interim Reports	Make Decisions in a Legal Context	Provide Financial and Business Performance Information
Use Business Equipment and Resources	Work Effectively with Others	Administer Subsidiary Accounts and Ledgers	Prepare Financial Statements for Non-Reporting Entities	Prepare Legally Compliant Tax Returns for Individuals
Work Effectively in Business Environment	Use Business Technology	Perform Financial Calculations	Set up and operate a Computerized Accounting System	Manage Budgets and Financial Plans
Operate a personal computer	Process Customer Accounts	Design and Produce Business Documents	Apply Principles of Professional Practice to Work in the financial services industry	Prepare Financial Reports for Corporate Entities
Develop Keyboard Skill	Process Customer Transactions	Administer Financial Accounts	Prepare Financial Reports	Implement and Maintain Internal Control Procedures
Create and use spreadsheet	Develop understanding of Ethiopian financial system	Prepare, Match and Process Receipts	Process Business Tax Requirements	Provide Management Accounting Information
Plan skill Development	Develop understanding of Taxation	Process Payment Documentation	Evaluate and Authorize Payment Requests	Establish and Maintain Accounting Information Systems
Participate in Environmental sustainable process	Develop and use personal budget	Process Applications for Credit	Establish and Maintaina Payroll System	Comply with Financial Services Legislation and Industry Codes of Practice
Organize and complete daily work activity	Develop and use saving plan	Monitor and Control Accounts Receivable	Develop and Use Complex Spreadsheets	Prepare Financial Reports to Meet Statutory Requirements
Receive and respond to daily communication	Develop understanding of debt and consumer credit	Balance Cash Holdings	Produce Job Costing Information	Prepare Financial Forecasts and Projections
Work with others	Participate in Work Place Communication	Process Payroll	Prepare Operational Budgets	Apply Legal Principles in Corporations and Trusts Law
Demonstrate work values	Work in Team Environment	Prepare Financial Reports	Maintain Inventory Records	Establish Effective Workplace Relationships
Apply quality standards	Develop business practice	Produce Spreadsheets	Establish and Maintain a Cash Accounting System	Apply Legal Principles in Commercial and Property Law

Develop understanding of Entrepreneurship	Apply Continuous Improvement Processes (Kaizen)	Calculate Taxes, Fees and Charges	Establish and Maintain an Accrual Accounting System	Manage Project Quality
Apply 5S Procedures		Handle Foreign Currency Transactions	Manage Overdue Customer Accounts	Facilitate and Capitalize on Change and Innovation
		Maintain Automatic Teller Machine (ATM) Services	Administer Levies, Fines and other Taxes	Establish and Conduct Business Relationships
		Maintain Business Records	Plan and Organize Work	Develop and Refine Systems for Continuous Improvement in Operations
		Process Customer Complaints	Migrate to New Technology	
		Deliver and Monitor a Service to Customers		
		Monitor Implementation of Work plan /Activities		
		Apply Quality Control		
		Lead Work place Communication		
		Lead Small Teams		
		Improve Business Practice		
		Maintain Quality System and Continuous Improvement Processes (Kaizen)		

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