ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS &
ECONOMICS DEPARTMENT OF ACCOUNTING AND FINANCE

Determinants of financial performance: In case of ethio telecom

A Thesis Submitted for the Partial Fulfillment of the Requirements for the Degree of Master of Science in Accounting and Finance

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Statement of Declaration

I, Befekadu Filipos declare that, this thesis entitled determinate of financial performance: in case of ethio telecom is my original work, prepared under the guidance of Dr. Alem Hagos. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for earning any degree.

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Statement of certification

This is to certify that the thesis prepared by Befekadu Filipos, entitled: Determinants of financial performance: in case of ethio telecom and submitted in partial fulfillment of the requirements for the degree of Master of Science in Accounting and Finance complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Name of Advisor__Alem Hagos (PhD)_____ **Signature_____**

Date _____

Name of internal examiner_____ **Signature_____**

Date _____

Name of external examiner: _____ **Signature_____**

Date _____

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Acronyms and Abbreviation

CS- Capital Structure

DSL- Digital subscriber line

EBIT-Earnings before interest and taxes

ERF-Exchange rate fluctuations

ERP-Enterprise resource planning

FAU- Fixed Asset Utilization

FMOLS- fully modified ordinary least square

GDP- Gross Domestic Product

GDP Inc. - Gross Domestic Product per capital income growth

INF- Inflations rates

Int. Exp. - Interest Expense

LIQ- Liquidity

OE- Operational Expense

OLS- ordinary least square

RG- Revenue Growth

ROA- Return on Assets

ROE- Return on Equity

UB- Uncollected Bills

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Abstract

This study aims to investigate determinants of financial performance of ethio telecom using a time serious data for the period 1993-2015. A secondary data from the audited financial statements of ethio telecom and world bank reports used and a quantitative and explanatory research approach used. Under this study, both internal and external macroeconomic factors considered. The internal factors are revenue growth, capital structure, fixed asset utilization, liquidity, operation expense and interest expense whereas, the external factor are foreign exchange rate fluctuation, inflation and GDP per capital income. ROA used to measure the financial performance as a proxy of financial performance. On this study co-integration test and a unit root test conducted to know whether the variables are stationary or not and also to detect long run relationship between variables in order to avoid spurious regression problems since time series data to be deployed. A Full-Modified OLS (FMOLS) regression model used to regress the data by the help of E-Views 8 (econometric software). The result reveled that revenue growth positively and significantly affects the financial performance of ethio telecom, on the other hand liquidity, inflation, interest expense, fixed asset utilization and interest expense fluctuation significantly and negatively affects the financial performance of ethio telecom.

***Key words**: Financial performance, ethio telecom, internal and external factors.*

Chapter One

1. Introduction

1.1 Background of the study

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Financial Performance in broader sense refers to the degree to which financial objectives being or has been accomplished and is an important aspect of finance risk management. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Financial performance analysis is the process of determining the operating and financial characteristics of a company from its accounting and financial statements. The goal of such analysis is to determine the efficiency and performance of firms, as reflected in the financial records and reports. The analyst attempts to measure the firm's liquidity, profitability, capital structure and other indicators that the business is conducted in a rational and normal way; ensuring enough returns to the shareholders to maintain at least its market value. When we look into the level of financial performance, generally analysis is concerned with two sets of performance measures. One based on capital market valuation of a firm and the other set based on accounting measures of profitability and financial performance.

The question of firm performance is very important for different group of people. This is because all agents that must make any financial decision about a company are concerned with its financial position (Vira2008). Thus, owners, managers, potential investors, banks, other

financial institutions, creditors, business partners, employees, and government are always interested in models that help to analyses and predict the performance of the companies.

The basic motive behind any investment, made by the corporate sector, is to earn profit (Kyereboah-Coleman, 2007). It is among the goals of the organization to maximize shareholder's wealth and generate enough profits to continue the business and to grow further in future. Performance of the firm is affected by multiple external and internal factors. It is important to note here that the internal factors are firm specific while external factors can be same for all or most of the firms. The external factors include market preferences and perceptions, country rules and regulations, and economy of the country. The market and laws are same for similar businesses but different across industries. Economy impact is same for all industries but is nonetheless an important and un-ignorable determinant of firm performance.

The concept of performance has become more prominent because of its application to everything and everywhere, thus serving as basis for comparison. Firm performance is a core concept in the business world, as it is one essential tools of business management (Francoise, Gerald &Mansi, 2005). Performance is used as a measure to dictate organizational growth and development. The performance of an organization shows the level of improvement made by a firm within a period that is, firm performance serves as a barometer that measures the success of the company, hence used as a bench mark for investors to invest their funds. Hence the purpose of this study is looking on determinates of financial performance: in case of ethio telecom considering both internal and external factors.

1.2 Background of the Organization

Think of telecommunications as the world's biggest machine. Strung together by complex networks, telephones, mobile phones and internet-linked PCs, the global system touches nearly all of us. It allows us to speak, share thoughts and do business with nearly anyone, regardless of where in the world they might be. Telecom operating companies make all this happen.

Not long ago, the telecommunications industry was comprised of a club of big national and regional operators. Over the past decade, the industry has been swept up in rapid deregulation and innovation. In many countries around the world, government monopolies are now

privatized and they face a plethora of new competitors. Traditional markets have been turned upside down, as the growth in mobile services out paces the fixed line and the internet starts to replace voice as the staple business.

Plain old telephone calls continue to be the industry's biggest revenue generator, but thanks to advances in network technology, this is changing. Telecom is less about voice and increasingly about text and images. High-speed internet access, which delivers computer-based data applications such as broadband information services and interactive entertainment, is rapidly making its way into homes and businesses around the world. The main broadband telecom technology - Digital Subscriber Line (DSL) - ushers in the new era. The fastest growth comes from services delivered over mobile networks.

Of all the customer markets, residential and small business markets are arguably the toughest. With literally hundreds of players in the market, competitors rely heavily on price to slog it out for households' monthly checks; success rests largely on brand name strength and heavy investment in efficient billing systems. The corporate market, on the other hand, remains the industry's favorite. Big corporate customers - concerned mostly about the quality and reliability of their telephone calls and data delivery - are less price-sensitive than residential customers. Large multinationals, for instance, spend heavily on telecom infrastructure to support far-flung operations. They are also happy to pay for premium services like high-security private networks and videoconferencing.

Telecom operators also make money by providing network connectivity to other telecom companies that need it, and by wholesaling circuits to heavy network users like internet service providers and large corporations. Interconnected and wholesale markets favor those players with far-reaching networks.

Telecommunication is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. It has become especially important in recent years because of enormous growth of information technology and its significant potential for the impact on the rest of the economy. The Telecom Sector, which has the multiplier effect on the economy, and has a vital role to play in the economy by contributing to increasing

efficiency. Pursuant to this grand objective of the government ethio-telecom has set and been striving to meet ambitious targets in customer acquisition, customer satisfaction and provision of quality services to customers.

According to the company's profile booklet (2013), the introduction of telecommunications services in Ethiopia dates to 1894, seventeen years after the invention of telephone technology in the world. It was Minilik II, the King of Ethiopia, who imported telephone technology to the Country around 1894, with the installation of 477 km long telephone and telegram lines from Harar to Addis Ababa. The first Ethiopian pioneer of telephone was his cousin Ras Mekonnen who came back with telephone apparatus in 1889 after his visit to Italy. Gradually, the technological scheme was proved to contribute to the integration of the Ethiopian society when the extensive open wire line system was laid out linking the Ethiopian capital city with all the important administrative towns of the country.

The company was placed under government control at the beginning of the twentieth century, and was later brought to operate under the auspices of the Ministry of Post and Communications.

In 1952, telecommunications services were separated from the postal administration, and structured under the Ministry of Transport and Communications. In 2010 Ethiopian government has decided to transform the telecommunication infrastructure and services to world class standard, considering the company as a key leverage in the development of Ethiopia.

Thus, ethio telecom was born on November 29th, 2010 with the ambition of supporting the steady growth of the country. Following introduction of the ethio telecom, a best suited IT solution named ERP was introduced having an objective of creating an automated work environment focusing on the financial, human resources and other physical resources aspects of the company with the objective of avoiding the manual working process to manage the ever-ending transaction of the company business, and to obtain up to date information about the financial position of the company.

1.3 Statements of the problem

Telecommunication is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. It has become especially important in recent years because of enormous growth of information technology and its significant potential for the impact on the rest of the economy. Karen F. Lomeland Jacobsen (2003), seeks to explore the relationship between telecommunications development and economic growth by performing an econometrical analysis, and results of the analysis indicate that there is a significant correlation between telecommunication and GDP growth. Overall, there seems to be larger growth effects from telecommunication development in developing countries than in developed countries. The telecom sector, which has the multiplier effect on the economy, and has a vital role to play in the economy by contributing to increasing efficiency.

Financial performance is an important part of running a growing business. Many businesses fail because of poor financial management or planning. Business success can depend on developing and implementing sound financial and management systems. A review of financial performance can help the organization to reassess its business goals and plan effectively for improving the business.

The basic motive behind any investment, made by the corporate sector, is to earn profit (Kyereboah-Coleman, 2007). It is among the goals of the organization to maximize shareholder's wealth and generate enough profits to continue the business and to grow further in future. Performance of the firm is affected by multiple external and internal factors. Internal factors are firm specific while external factors can be same for all or most of the firms. The external factors include market preferences and perceptions, country rules and regulations, and economy of the country.

On the globe a lot of studies are conducted on determinates of firm's financial performance on different sectors and has identified different factors that empirically and significantly affecting the firm's performance. For instance Sidra Ali Mirza and Attiya Javed (2013) examines the possible association between financial performance of the firm and economic indicators, corporate governance, ownership structure, capital structure, and risk management for 60

Pakistani corporate firms, Mirie Mwangi and Jane Wanjugu Murigu (2015) studied the determinants of financial performance in general insurance companies in Kenya on the other hand Obare Nyaega , et.al (2015) studied determinants of financial performance in internet service providers in Kenya using different factors.

Even though, a lot of researchers conducted on this topic, the determinants of financial performance have been argued for many years and still unresolved issues in the corporate finance literature. Indeed, what makes the financial performance determinants debate exciting is the determinants are dynamic through time to time and differ with the nature of operating of the firm from place to place (Flamini, et al, 2009).

In Ethiopia concerning the determinates of financial performance several researches conducted. Dawit Fekadu (2016), studies the determinates of commercial banks financial performance in Ethiopia considering both external and internal factors, also Sisay Haile (2016), studies the determinants of financial performance of microfinance institution in Ethiopia. Mulualem Getahun (2015) analyzing financial performance of commercial banks in Ethiopia using CAMEL approach. On the other side a comparative study on the financial performance of commercial banks in Ethiopia- An application of CAMEL model is a study conducted by Tadios Mulugeta (2016). The impact of corporate governance on microfinance institutions financial performance in Ethiopia studied by Belete Zegeye (2015). Gebeyehu Abebe (2017), conducted a research on determinates of financial performance of aviation profitability: the case of Ethiopian airlines. Asrat Kifle (2016), studied capital structure and financial performance: Evidence from Ethiopian cement companies.

According to the researcher best knowledge, the literature on determinates of financial performance of telecom industries in Ethiopia is very scarce and no researchers gave attention to this area. Due to gap in literature, there may shortage of guideline in formulating policies & procedures and as well to conduct academic researchers.

Therefore, this study attempted to investigate the determinates of financial performance in ethio telecom, picking revenue growth, capital structure, fixed asset utilization, liquidity,

operation expense and interest expense as internal factors variables and inflation and exchange rate fluctuation, inflation and GDP per capital income growth as external factors variables.

1.4 Research Questions

There is a significant correlation between telecommunication and GDP growth (Karen F. Lomeland Jacobsen 2003), ethio telecom is one of the public-sector company established to provide telecom service in Ethiopia, which have a great impact on the overall growth of the country. Therefore, knowing the financial performance and the determinants of the financial performance of the company has its own merits, hence this paper was conducted to adders the following research questions:

- What effect revenue growth put on financial performance?
- How the level of liquidity affects financial performance?
- What effect inflation impose on financial performance?
- What effect exchange rate volatility develop on financial performance?
- How cost of capital/interest expense affects financial performance?
- What effect GDP-per capital income impose on financial performance?
- What effect operation expense set on financial performance?
- How capital structure affects financial performance?
- What effect fixed asset utilization put on financial performance?

1.5 Objective of the study

1.5.1 General objective of the study

The main objective of the study was to investigate determinants of financial performance of ethio telecom.

1.5.2 Specific objective

Specific objective of the research was to discover the following;

- ✓ To determine the effect of revenue growth on the financial performance of ethio telecom.
- ✓ To assess the influence of Inflation on the financial performance of ethio telecom.
- ✓ To explore the significance of liquidity on the financial performance of ethio telecom.
- ✓ To examine the influence of exchange rate fluctuation on the financial performance.
- ✓ To determine the effect of fixed asset utilization on the financial performance.
- ✓ To examine the effect of capital structure on financial performance.
- ✓ To examine the effect of operating expense on financial performance.
- ✓ To examine the effect of interest expense on financial performance.
- ✓ To examine the effect of GDP per capital income growth on financial performance.

1.6 Hypothesis of the study

This study tests the following hypothesis:

Hypothesis 1: There is positive and significant effect between revenue growth and financial performance.

Hypothesis 2: There is negative and significant effect between inflation and financial performance.

Hypothesis 3: There is negative and significant effect between Interest Expense and financial performance.

Hypothesis 4: There is negative and significant effect between exchange rate fluctuation and financial performance.

Hypothesis 5: There is negative and significant effect between capital structure and financial performance.

Hypothesis 6: There is negative and significant effect between operating expense and financial performance.

Hypothesis 7: There is negative and significant effect between Fixed Asset Utilization and financial performance.

Hypothesis 8: There is positive and significant effect between liquidity and financial performance.

Hypothesis 9: There is positive and significant effect between GDP per capital income growth and financial performance of ethio telecom.

1.7 Significance of the study

The growth of telecommunication has a significant and direct effect on the GDP growth and it's a catalyst to the growth of other industries (Karen F. Lomeland Jacobsen 2003). Therefore, studying the financial performance and determinates of the financial performance of ethio telecom is significant and the finding enables the company to know those factors statically and significantly determines the financial performance and to enhance its financial performances through planning and formulating policies and procedures according to the findings, so this paper will investigate what are determinates of financial performance of ethio telecom by considering the internal and external factors and then provide a constructive recommendation. And, the findings of the study will be a guide to finance division of ethio telecom as well as to other sectors to make informed decisions that will satisfy stakeholder's interests considering the effect of internal and external factors to financial performance.

The findings of this study also serve to the students of finance in terms of empirical review as well as to those who wish to carry out further research on the topics of determines of financial performances.

1.8 Scope of the study

The scope of this study used to investigate determinates of ethio telecom financial performance by observing the audited financial statements from the period **1993 to 2015** and by considering both the internal and external factors, those are revenue growth, capital structure, fixed asset

utilization, rate of long term debt, operation expense, interest expense, exchange rate fluctuation, inflation and GDP per capital income growth.

1.9 Limitation of the study

Limitations of this study were: -

- the study concentrated only on ethio telecom, therefore its findings may not be extended to others public sectors in Ethiopia, firms in other industries, and firms in countries.
- The study carried out with the help of secondary data. The reliability of the results base on authenticity of the data collected. Hence to minimize the effect, the data collected from its sources.
- And also, there could be other internal and external macroeconomic factors that may be affecting the financial performance of ethio telecom which not include in this study.

1.10 Organization of the paper

This paper contains five chapters. The first chapter presents introduction, background of the study & organization, statement of the problem, research question, objective, hypothesis, significance, scope, and limitation of the study. Chapter two deals with literature review in the form of theoretical and empirical studies and states the gap analysis and conceptual framework. The third chapter reflects the research design and methodology of the study. Then chapter four presents data analysis and empirical result of the study, finally in the fifth chapter conclusion and recommendation presented.

Chapter Two

2. Review of Related Literature

In this chapter, the researcher reviews different literature thoughts and empirical literatures in relation to determinates of financial performance.

2.1 Concepts of financial performance

Measuring business financial performance is an important part of running a growing business. Many businesses fail because of poor financial management or planning. Business success can depend on developing and implementing sound financial and management systems. A review of financial performance can help the organization to reassess its business goals and plan effectively for improving the business.

Financial performance analysis is the process of determining the operating and financial characteristics of a company from its accounting and financial statements. The goal of such analysis is to determine the efficiency and performance of firms, as reflected in the financial records and reports. The analyst attempts to measure the firm's liquidity, profitability, capital structure and other indicators that the business is conducted in a rational and normal way; ensuring enough returns to the shareholders to maintain at least its market value. When we look into the level of financial performance, generally analysis is concerned with two sets of performance measures. One based on capital market valuation of a firm and the other set based on accounting measures of profitability and financial performance.

Measuring the financial performance is vital for the triumph of an enterprise. Financial performance analysis is an appraisal of the feasibility, solidity and fertility of a business, sub-business or mission.

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure

of a firm's overall financial health over a given period, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Financial Performance in broader sense refers to the degree to which financial objectives being or has been accomplished and is an important aspect of finance risk management. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Corporate performance or firm's performance refers to the result of management process in relation to corporate goals. It is a product of the activities and return on investment in a given period (Mohammad & Ebrahim, 2010). Firm performance helps to reveal the result of investment activities of the organizations thus informs and send out signals to the public in relation to their worth/value to help investors make valuable economic decisions.

Corporate performance is an important issue in corporate finance considering the recent levels of financial scandals and various degrees of firm's failures. The concept of corporate performance in accounting literature refers to profit, return on assets and economic value (Hasan et al, 2010).

Corporate profit is one of the most closely followed economic indicators. Profits are source of retained earnings, providing much of the funding for investment in plant and equipment that raises productive capacity. Profits are also frequently used in measuring the rate of return on investment and the relationship between earnings and equity valuation. Profits may also be used to evaluate the effects of changes in policy on corporations or profits or in economic conditions.

Profitability is the primary goal of all business ventures, without profitability the business will not survive in the long run. Therefore, the measurement of current or past profitability and projecting future profitability is very important. Profitability is the most important measure of the success of the business and a business that is not profitable cannot survive. Consequently, profitability of firm plays an important role in the structure and development of firm because it measures the performance, success of the firm and enhances the reputation of the firm

(Nousheen & Arshad, 2013). Profitability provides a summary measure of corporate success or failure and thus serves as an essential indicator of economic performance. Consequently, a business that is highly profitable has the ability to reward its owners with a large return on their investment.

2.2 Measurements of financial performance

According to Tian & Zeihim, (2007) financial measurement is one of the tools which indicates financial strength, weakness, opportunities and threats of a company. Company's management use financial indicators to measure and improve organization financial performance.

According to Holz, (2002) there are different ways to measure financial performance such as: return on asset (ROA), return on equity (ROE) and return on invested capital (ROIC). ROA is an indicator of how profitable a company is relative to its total assets. It gives us an idea as to how efficient management is in using its assets to generate earnings whereas ROE measures a company's profitability which reveals how much profit a company generates with the money shareholders have invested. On the other hand, ROIC is a measure used to asses a company's efficiency in allocating the capital under its control in profitable investments. This measure gives a sense of how well a company is in using its money to generate returns.

Bambang, et.al (2012) defined return on assets, as the measurement of performance. It tells the investor how well a company uses its assets to generate income. And that a higher ROA denotes higher level of management performance. To Emil (2011), ROA is an indication of the operating efficiency of the firm. According to Panagiotis & Konstantinos (2005), ROA can be viewed as the firm's ability to make use of its assets, thus, it is one of the world's easiest calculations of performance aside return on sales and return on equity.

On the other hand, Yana (2010) defined ROA to be a measure of how effectively assets are used to create profits. Hence, the higher the ROA measure the more favorable the company is because it is earning more from what it has invested.

The concept return on assets has been used in several researches to reflect financial performance, although measured differently. For Renato (2010), return on assets is obtained

by dividing the net profit of the period by the total assets of the company. Umoren & Olokoyo (2001) measured ROA as gross earnings divided by total assets. Manan, Daniel &Dalia (2012) measured ROA as the ratio of the operating results and the employed capital. For Adegbaju & Olokoyo (2008), it is net income after tax divided by total asset. Meanwhile, Victor et al (2013) measured ROA as profit after tax over total assets. Likewise, Lorpev & Kwanum (2012) measured ROA as profit after tax divided by total assets. Mesut (2013) measured ROA as total sales and number of employees by total assets. Yana (2010), measured ROA as earnings before interest and tax divided by total asset of the firm. Bala et.al (2005), ROA is earnings before tax divided by total assets employed multiplied by 100. Also, Tih (1998) measured ROA as annual net income over total assets. On this study ROA measured by gross earnings divided by total assets and adopting the model Umoren & Olokoyo (2001)

2.3 Determinates of Financial Performance

The basic motive behind any investment, made by the corporate sector, is to earn profit (Kyereboah-Coleman, 2007). It is among the goals of the organization to maximize shareholders' wealth and generate enough profits to continue the business and to grow further in future. Performance of the firm is affected by multiple external and internal factors. It is important to note here that the internal factors are firm specific while external factors can be same for all or most of the firms. The external factors include market preferences and perceptions, country rules and regulations, and economy of the country. The market and laws are same for similar businesses but different across industries. Economy impact is same for all industries but is nonetheless an important and un-ignorable determinant of firm performance. Some determinant of firm financial performance listed below: -

- Growth Rate/ Revenue growth
- Turnover of Receivables
- Economic Condition
    - ✓ Inflation
    - ✓ Exchange rate volatility
    - ✓ GDP per capital income growth rate

- Capital Structure
- Fixed Asset Utilization
- Cost of Capital
    - ✓ Interest expense
- Liquidity
- Operation Expense

2.3.1 Growth/Revenue Growth

Growing firms can scale up their business very rapidly. One consequence of this rapid growth is that the firm's balance sheet may come under significant pressure as capital demands escalate in line with business growth. While growth firms in the early stages may not be profitable, investors are generally willing to take a longer-term view in the expectation that rapid revenue growth will eventually translate into increasing profits and cash flow.

Growing firms can be found in any sector, but they tend to be clustered in areas such as technology and life sciences. As some of the biggest and most successful companies such as Apple and Google demonstrated in the past, size is also no barrier to being a growth firm.

The process of improving some measure of an enterprise's success. Business growth can be achieved either by boosting the top line or revenue of the business with greater product sales or service income, or by increasing the bottom line or profitability of the operation by minimizing costs.

According to Reilly and Brown (2006), revenue growth affects company value. High growth potential often helps push up stock price. Companies with growth capacity might generate increased market share and synergy effects, thereby leading to favorable performance. On the other hand, fast growing companies may be confronted with increased competition and are more sensitive and subjective to economic fluctuations (Idol, 1978; Logue & Merville, 1972). Also, management pursuance of growth may be at the expense of the owner’s wealth (Hill & Jones, 1995), leading to a negative relationship between growth and company value. Both

positive (capon et.al., 1990; Roenfeldt & Cooley, 1978) and negative (Fuller & Jensen, 2002; Ramezani et al, 2002) relationship were shown by empirical studies, demonstrative of inconclusive findings.

2.3.2 Turnover of Receivables

Accounts receivable turnover is the ratio of net credit sales of a business to its average accounts receivable during a given period, usually a year. It is an activity ratio which estimates the number of times a business collects its average accounts receivable balance during a period.

We can obtain the net credit sales figure from the income statement of a company. Average accounts receivable figure may be calculated simply by dividing the sum of beginning and ending accounts receivable by 2. The beginning and ending accounts receivable can be found on the balance sheets of the first and the last day of the accounting period.

Accounts receivable turnover is usually calculated on annual basis, however for creating trends, it is more meaningful to calculate it on monthly or quarterly basis.

Accounts receivable turnover measures the efficiency of a business in collecting its credit sales. Generally, a high value of accounts receivable turnover is favorable and lower figure may indicate inefficiency in collecting outstanding sales. Increase in accounts receivable turnover overtime generally indicates improvement in the process of cash collection on credit sales.

However, a normal level of receivables turnover is different for different industries. Also, very high values of this ratio may not be favorable, if achieved by extremely strict credit terms since such policies may repel potential buyers.

Accounts receivable turnover is the number of times per year that a business collects its average accounts receivable. The ratio is intended to evaluate the ability of a company to efficiently issue credit to its customers and collect funds from them in a timely manner. A high turnover ratio indicates a combination of a conservative credit policy and an aggressive collections department, as well as a few high-quality customers. A low turnover ratio represents an opportunity to collect excessively old accounts receivable that are unnecessarily tying up working capital. Low receivable turnover may be caused by a loose or nonexistent credit

policy, an inadequate collections function, and/or a large proportion of customers having financial difficulties. It is also quite likely that a low turnover level indicates an excessive amount of bad debt.

2.3.3 Economic Conditions

Economic condition of the country can affect a firm's performance on multiple fronts. Cost of borrowings can negatively influence the firm's capability to generate finances and invest in projects (Ntim, 2009). Prices of utilities, high costs associated with plant and machinery due to either deterioration of currency or import costs, high inflation rate and low income level of people can decrease the demand for industrial goods and hence negatively impact the firm's performance (Forbes, 2002).

Inflation- is the rate at which the general level of prices for goods and services is rising and, consequently, the purchasing power of currency is falling. Central banks attempt to limit inflation, and avoid deflation, to keep the economy running smoothly.

The economic conditions of a country most likely affect firm's performance, and therefore performance will probably change depending on the country's condition, as well. One indicator for economic conditions is the inflation of a country. Mirza and Javed (2013) found that a higher inflation rate has a negative effect on firm performance.

It is relatively well-established that inflation delay long-run economic growth and distorts macroeconomic stability. De Gregorio (1993), Fischer (1993), Barro (1998), Bullard and Keating (1995), Clark (1997), Bruno and Easterly (1998), and Fischer (2005) confirm that average levels of inflation offset the Mundell-Tobin effect, consequently having a detrimental impact on economic growth. Similarly, Cooley and Hansen (1989) and De Gregorio (1993) conclude that high levels of inflation decrease the labor supply and hence economic growth.

Inflation has an adverse effect on capital accumulation and investment and deteriorates income distribution (Shahbaz et al. 2010). Goldsmith (1969), McKinnon (1973), King and Levine (1993), Levine and Zervos (1998), Beck et.al. (2000), and Beck and Levine (2004) suggest that Financial development has a positive impact on long-run economic growth. Bonfiglioli

(2006), Bittencourt (2007) and Shahbaz and Farid (2011) conclude that financial development seems to decrease either income inequality or poverty through physical capital formation and economic growth.

Boyd and Champ (2003) discover that inflation damages economic growth through declining financial development, especially by damaging the operation of financial markets. Maksimovic (1998) reports a positive relationship between inflation and financial crisis and explains this with frictions in financial markets. According to Mundell (1963) and Tobin (1965), portfolio allotments

Exchange Rate volatility- exchange rate is the price of a nation's currency in terms of another currency. An exchange rate thus has two components, the domestic currency and a foreign currency, and can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency. An exchange rate that does not have the domestic currency as one of the two currency components is known as a cross currency, or cross rate.

There are two main types of determinants of interest rate volatility. The first type of determinants market -specific determinants which include lack of adequate competition in the banking sector and consequent market power of commercial banks, the degree of development of the banking sector, and explicit and implicit taxation -such as profit taxes, reserve requirements, the efficiency of the legal system, contract enforcement, and decreased levels of corruption, which are all critical elements of the basic infrastructure needed to support efficient banking.

According to Barajas et.al, (2000) when commercial banks have greater market power the interest rate volatility tends to be higher and the reverse is also true. He further argues that when the reserve requirements are also high, then the chances of experiencing high interest rate volatility are very high. Demirguc-Kunt and Huizinga (1998) also assert that inefficiency of the legal system and high corruption are potential determinants of interest rate volatility.

The second type of determinant of interest rate volatility is macroeconomic factors. Macroeconomic factors are among the most influential sources for variations in interest rate volatility. Macroeconomic instability and the policy environment have important impacts on the pricing behavior of commercial banks (Chirwa and Mlachila, 2004). They further assert that the macroeconomic variables typically thought to be determinants of interest rate volatility include inflation, growth of output, and money market real interest rates. Brock and Franken (2002) include interest rate uncertainty and volatility, and Randall (1998) also includes the share of commercial bank public sector loans, in her list of determinants of interest rate volatility. Tennant (2006) also confirms that that macro -policy variables, such as public sector domestic borrowing, discount rates and Treasury Bill rates, are commonly perceived to impact on interest rate volatility.

However, there are other additional macro-policy variables included by Crowley (2007) in his study of English-speaking African countries such as broad money growth, and the fiscal balance. The macroeconomic variables which have been empirically shown to increase interest rate Volatility include: high and variable inflation and real interest rates (Demirguc-Kunt and Huizinga, 1998); interest rate uncertainty (Brock and Franken, 2002); broad money growth (Crowley, 2007); increased fiscal deficits (Crowley, 2007); and a high share of commercial bank public sector loans (Randall, 1998).

GDP per capital income- Per capita GDP is a measure of the total output of a country that takes gross domestic product (GDP) and divides it by the number of people in the country. The per capita GDP is especially useful when comparing one country to another, because it shows the relative performance of the countries. A rise in per capita GDP signals growth in the economy and tends to reflect an increase in productivity.

2.3.4 Capital structure or leverage

Every industry requires a substantial amount of resources, whether it is land, labor or capital employment of all required finances. These finances can either be generated internally (retained earnings) or hired from outside sources (loans and bonds). The decision of selection of the source of finance is based on the cost associated with them and the capital structure of

firm. These costs can be monetary or non-monetary. Capital structure is also an important factor that determines the performance of a firm. Capital structure refers to the ratio of debt and equity financing. In case if more debt financing the company must face certain bankruptcy risk, but there are also some tax and monitoring benefits associated with debt financing (Su and Vo, 2010). It also mitigates the agency conflict by reducing the free cash flow of the firm. There should be an appropriate capital structure that generates the maximum profit for the organization, as too less equity financing increases the control of the owners to a large extent (Abu-Rub, 2012). In case of internally generated finances, it is said that these have the highest opportunity cost (Lewellen, 2004) for the firm because retaining of profits can affect share holder trust, because it would otherwise have been distributed as dividend. Dividend announcements have a significant impact on share prices (Akbar and Baig, 2010). As far as external borrowings are concerned they are the cheapest source of financing because of the tax benefits. But they do still have certain costs like interest payments and it is widely accepted that the cost of external funds is directly proportional to the amount of these funds also while borrowing the capital structure policy of the firm must be kept in mind. Another important factor which influences the generation of funds is the financial position of the corporation (Havemann and Webster, 1999). Firstly, to invest through retained earnings the corporation must generate enough profit that can satisfy its owners and fulfill the investment demands. Secondly, creditors like to invest in profitable corporations and projects (Amidu and Hinson, 2006); they tend to invest in corporations that can, to some extent, ensure the payment of their liability.

Lorpev & Kwanum (2012) recommend in their study on capital structure and firm performance of manufacturing companies in Nigeria that those managers should be careful while using debt as a source of finance since a negative relationship exists between the capital structure and performance. As a result, firms should opt to finance their activities with retained earnings and use debt as a last option as supported by the pecking order theory.

Leverage is that part of capital structure used to finance the activities of firm, most times referred to as debt. According to Champion (1999), the use of leverage is one way to improve the performance of the firm.

Leverage has been defined differently. In the same vein, it has also been measured in many such as; Bala et.al (2005), proxy leverage as total long term debt to shareholder's fund multiplied by hundred. Humera et al (2011) considered leverage as book value of debt to book value of total asset. But to Fabrizo, et.al (2011), leverage is equal to total long and short term debt to total asset and total liability to total asset, while Tih (1998), measured leverage as long term debt divided by total asset. Abdullah et al, (2011) measured leverage as total debt to total asset. To this end, total debt to total asset used by Abdullah et al, (2011), would be employed in this study.

2.3.5 Cost of Capital

Companies influence their cost of capital through many ways because the choice of financial structure affects the cost of capital (Wald, 1999). Wald, (1999), further noted that investors providing equity capital were in a riskier position as opposed to those providing debt since owners are the residual claimants of a company's net cash flows. Owners of a business receive returns through dividend and increase in the value if the firms' as sets often reflected in stock price appreciation. Debt holders on the other hand obtain interest payment before dividends are paid out.

Cost of capital therefore in general summarizes the different costs attached to the different sources of financing obtained by an organization (Michaelas, N., Chittenden, F., & Poutziouris, P., 1999). Michaelas, et.al (1999), noted that for the case of equity financing, the shareholders will not often make explicit the return they will require for their capital contribution unlike the capital raised by way of borrowing which normally has an interest rate attached to it which then forms the basis of an organization's cost of capital. It is therefore imperative to note that a highly-levered business depends more on debt for its overall financial capitalization which thereby increasing the risk hath to the debt and shareholders.

Another important aspect Wald, (1999) raised in his work was that in both debt and equity financing, both instances required higher returns to bear the risk though the weighted average cost of capital could possibly be reduced up to a point as leverage increased from zero since

the cost of debt was less than the cost of equity. Thus, the business's choice of degree of financial gearing was likely to have a bearing on its weighted average cost of capital.

Eriotis *et al.* (2000) investigated the relationship between debt to equity ratio and firm's profitability taking into consideration the level of a firm's investment and the degree of market power. The study used panel data for various industries, covering a period 1995-96. They concluded that firms which prefer to finance their investment activities through self-finance are more profitable than firms which finance investment through borrowed capital. According to them, firms used their investment in fixed assets as a strategic variable to affect profitability.

2.3.6 Liquidity

Liquidity means how quickly you can get your hands on your cash. In simpler terms, liquidity is to get your money whenever you need it. Liquidity might be your emergency savings account or the cash lying with you that you can access in case of any unforeseen happening or any financial setback. Liquidity also plays an important role as it allows you to seize opportunities.

If you have cash and easy access to fund and a great deal comes along, then it's easier for you to cease that opportunity. Cash, savings account, checkable account are liquid assets because they can be easily converted into cash as and when required.

Static measurement of liquidity determines the relation between current assets and short-term liabilities. The ratios based on this relation are the relationship of various ranges of current assets with different liquidity levels to short-term liabilities. They reflect, thus, various degrees of financial liquidity of an enterprise.

According to Sunday & Obida (2010), the concept liquidity is one that is receiving serious attention all over the world especially in the current financial situations and the state of the world economy. Since, liquidity plays a crucial role in the success of the functioning of a business firm. This implies that business concerns, owners and managers must devise strategies of managing their day to day operations to meet their obligations as they fall due and increase profitability and shareholder's wealth.

There are two basic ratios of financial liquidity, the first is current ratio, which is the simplest and least strict ratio. Current assets are those that can reasonably be converted to cash in one year and computed as the current assets divided by current liabilities. This ratio assesses whether the organization have sufficient assets to cover its liabilities. A ratio of two shows the organization have twice as many current assets as current liabilities. And the second is Quick or acid-test ratio, which is slightly strict than current ratio. It excludes inventories and other current assets, which are not as liquid as cash and cash equivalents, accounts receivable and short-term investments.

According to the research conducted by Chandra, (2001), normally a high liquidity is seen as a sign of financial strength. This is supported by (Goddard et al, 2005) firms with higher level of liquidity could be more profitable, they state in their study that companies holding more liquidity would be more likely to adopt with market movements. In addition, those companies could benefit from a greater probability of allocating their investments optimally to grow. Deloof, (2003) argues that companies with greater levels of liquidity are more flexible in terms of providing short-term financing which could lead to a higher profitability. On the other hand, firms with higher level of liquidity could result in decreasing profitability. Veira, (2010), believe that a high liquidity can be as undesirable as a low one. He adds that current assets are usually less profitable than fixed ones. Money invested in assets generates less revenue than fixed assets, thus representing an opportunity cost. Buckle and Adams (2003), the study show that greater level of liquidity is associated with decreased profitability because managers would more likely allocate firms resources in a way that increase their prestige which would not be the optimal allocation of investments. This is supported by Raheman and Nasr (2007) studied the relationship between capital and earnings management for 94 companies listed on the Stock Exchange in Karachi, Pakistan. Their finding indicates a significantly negative relationship between liquidity and profitability of analyzed companies.

Abang (2012), measured liquidity using current ratio which is current assets divided by current liabilities while studying the impact of liquidity on commercial banks. Also, Studies by Qasim & Ramiz (2011); Sunday & Obida (2010); Aloy (2008); Gebeyehu Abebe (2017) and Asrat Kifle (2016), measured liquidity using current ratios.

2.3.7 Fixed Asset Utilization

The asset utilization ratio measures management's ability to make the best use of its assets to generate revenue. According to Ellis (1998), asset utilization measures which assets can produce and what they actually produce. Conversely, asset dis-utilization represents losses in revenue in relation to the investment that may be attributable to the inefficient use of assets.

Ibam (2007), argued that a company's investment in fixed asset is dependent, to a large degree, on its line of business. Some business is more capital intensive than other. According to Ibam fixed asset turnover ratio looked at asset over time and compares the ratio to that of competitors. This gives the investor an idea of how effectively a company's management is using fixed asset. It is a rough measure of the productivity of a company's fixed assets with respect to generating sales. The higher the number of times turnover, the better. However, investors look for consistency or increasing fixed assets turnover rates as positive balance sheet investment qualities.

Assets have significant role in determining the efficiency and the profit ratio of a firm. Since a firm acquires plant and machinery and other productive fixed assets for generating sales. Therefore, efficiency in the use of fixed assets should be judged in relation to sales. Pandey (1999) opined that fixed assets turnover ratio measures the efficiency with which a firm is utilizing its investment in fixed assets. It also indicates the adequacy of sale in relation to investment in fixed assets. Generally, a high fixed assets turnover ratio indicates efficient utilization of fixed assets in generating sales, while a low ratio indicates inefficient management and utilization of fixed assets.

Okwo *et.al.* (2012) studied the investment in fixed assets and firm profitability, evidence from the Nigerian Brewery Industry. A cross sectional data was gathered for the analysis from the annual reports of the sampled brewery firms for a period of 1995 to 2009. The four brewery firms that constitute the sample were those quoted on the Nigerian Stock Exchange and their inclusion in the analysis is based on the availability of data for the sample period. The brewery firms that constitute the sample are: Nigerian Breweries Plc, Guinness Nigeria Plc and International Breweries Plc, Champion Breweries Plc. The result of the tested hypothesis

showed that the level of investment in fixed assets does not strongly and significantly impact on the level of reported profit of breweries in Nigeria.

The fixed assets turnover ratio is sales divided by net fixed assets (i.e. depreciation value of fixed assets) (Pandey,1981). A firm acquires plant and machinery and other productive fixed assets for generating sales. Therefore, the efficiency of fixed assets should be judged in relation to sales.

2.3.8 Operation Expense

Operation expense is one of financial ration and indicators of efficiency which assist in determining the health of a business. Operating expense ratio is a measurement of financial efficiency and is determined based on information derived from a business operation's financial statements specifically using the financials that determine gross income. Financial efficiency refers to how effectively a business can generate income. Operating expense ratio is measured as a percentage, the lower the percentage the better the situation is for the business. The Operating expense ratio shows the proportion of income that is being used to cover operating expenses not including the principal and interest of loans.

2.4 Empirical Literature Review

Sidra Ali, et.al (May 2013), investigates determinates of financial performance of a firm associating the financial performance against economic indicators, corporate governance, ownership structure, capital structure and risk management. The study examines the performance of firms in terms of profitability and its association with multiple determinants for 60 Pakistan corporate firms for the period of 2007 to 2011. And conclude the economic factors, ownership structure and risk management are the determinant factors of financial performance.

In Kenya, Obare Nyaega, et.al (2012) conducted a research about determinates of financial performance in internet service provider in Kenya and reaches on the conclusion of important attributes that customers considered before deciding to purchase or stay with a service provider were service uptime, network coverage, and customer service. Secondly, the study concludes

that the factors influencing customer churn were service uptime, customer service, and network coverage. These factors significantly influenced customers' decisions to change a service provider if unsatisfied.

Wippern, (1966), investigated the relationship between financial leverage and firm value on some industries which marked on high degree in difference characteristics from where growth cost and demand. The study used debt to equity ratio as financial leverage indicator and earnings to market value of common stock as performance indicator. Results revealed that leverage effect positively on firm value and this traditional evidence which said that shareholder's wealth can enhance by using outside financing. In this manner, Holz, (2002) found that capital structure (debt ratio) related positively with the firm performance, the result ascribes to the willing of firm's managers to finance their projects by borrowing and then use theses money optimally to maximize the performance. Accordingly, to this result, if the banks want to lend money, it shall study the feasibility of projects that want to finance its accurately before offer loans until that the firms can achieve required returns to meet their obligations.

Other study by Akinyomi, (2013), using three manufacturing companies selected randomly from the food and beverage categories and a period of five years (2007-2011) using the static trade-off and the pecking order theory point of view. He adopted the use of correlation analysis method and revealed that each of debt to capital, debt to common equity, short term debt to total debt and the age of the firms' is significantly and positively related to return on asset and return on equity but long term debt to capital is significantly and relatively related to return on asset and return on return on equity. His hypothesis also tested that there is significant relationship between capital structure and financial performance using both return on asset and return on equity.

Majumdar, S.K., & Chhibber, P., (1999) and Ghosh, (2007) reached that level debt (capital structure) associated inversely with firm's performance. The result refers to the creditors who are using loans as disciplinary tool on the firm. This tool bases on the restrictions that impose by creditors on the firm as prevention the firm from distribute the earnings on the shareholders or impose restrictive conditions on the loans by increasing the interest rates or impose sufficient collaterals on loans, thus, these restrictions will lead firm to focus on how pay the

debt burden without concerning in achieving earnings and reflect adversely on firm performance. Abor, (2005) noted that various capital structure measure which represented short term debt, long term debt and total debt associated negatively and statistically with firm performance. The conclusion refers to that firms rely on borrowing extremely, it will not achieve tax shields and then it leads to increase borrowing cost of which the firm exposes to the bankruptcy risks and reduce the return.

Moreover, Rao, N., et.al (2007) reached that capital structure related inversely on financial performance on Oman firms. The relationship refers to high borrowing costs in Oman economy and to the weakness of the debt market activity in Oman. They suggested that tax savings because of debt using are not sufficient to meet the costs of debt and it would be the cost of debt greater than the rate of return. Krishnan, V. and Moyer, R., (1997), Gleason, K. C.; Mathur, L., (2000) proved that capital structure also related negatively with firm financial performance.

From Croatia, Pervan and Visic (2012) investigates the effects of financial factors on the firm performance using data medium and large enterprises within 2002-2010, the finding shows that the firm size positively affects firm profitability. Additionally, results showed that asset turnover and debt ratio also statistically affects firm's performance (Pervan & Visic, 2012).

Dawit Fekadu, (2016), conducted a research via a tittle determinants of commercial banks financial performance in Ethiopia using capital adequacy, asset quality, earning ability , liquidity management and bank size as internal factor and exchange rate as external factors and finding concluded that capital adequacy and bank size have a significant impact on ROA with a positive relationship, on the other side asset quality, earning ability and foreign exchange rate have a significant impact on ROA with negative relationship. In contrast, liquidation management has no significant relationship with ROA.

Tadios Mulugeta, (2016), conducted a comparative study on the financial performance of commercial banks in Ethiopia- an application of CAMEL model. The result of the study imply that it might be necessary for a bank management to take all the required decisions to enhance the financial performance positions of bank. In addition, the CAMEL model help all

commercial banks to control and administer the growth and ability to raise new capital which leads to give a reasonable dividend. And, Ermias Mengesha (2016), studied on financial performance of private commercial banks in Ethiopia considering a CAMEL approach, based on the finding recommends that the private banks need to develop their credit risk management capacity to avoid poor performance of asset that mainly emanate from loans and advance so as to boost their profitability based on his finding.

Belete Zegeye, (2015), also conducted a research on the impact of corporate governance on microfinance institution financial performance in Ethiopia. The finding suggests that microfinance institution with effective corporate governance improve financial performance. On the other hand, Sisay Haile (2016), conducted research on determinates of financial performance of microfinance institution in Ethiopia using different variables and conclude that operation expense, firm size, portfolio risk and financial self-sufficiency are significantly determining the financial performance of the microfinance institution in Ethiopia.

Asrat Kifle (2016), conducted a research on capital structure and financial performance: Evidence from Ethiopian cement companies. To examine the relationship between capital structure and financial performance ROA used as a proxy and reach on that capital structure has significant positive relationship with financial performance of Ethiopian cement factories.

Gebeyehu Abebe (2017), studied on determinates of aviation profitability: the case of Ethiopian airlines. On the study as an explanatory variable growth, liquidity, leverage, tangibility of assets, lease and fuel cost used against dependent variable of profitability proxy by ROA. The researcher concluded that fuel cost, liquidity and leverage are statically significant determines the profitability of Ethiopian airlines.

2.5 Gap Analysis

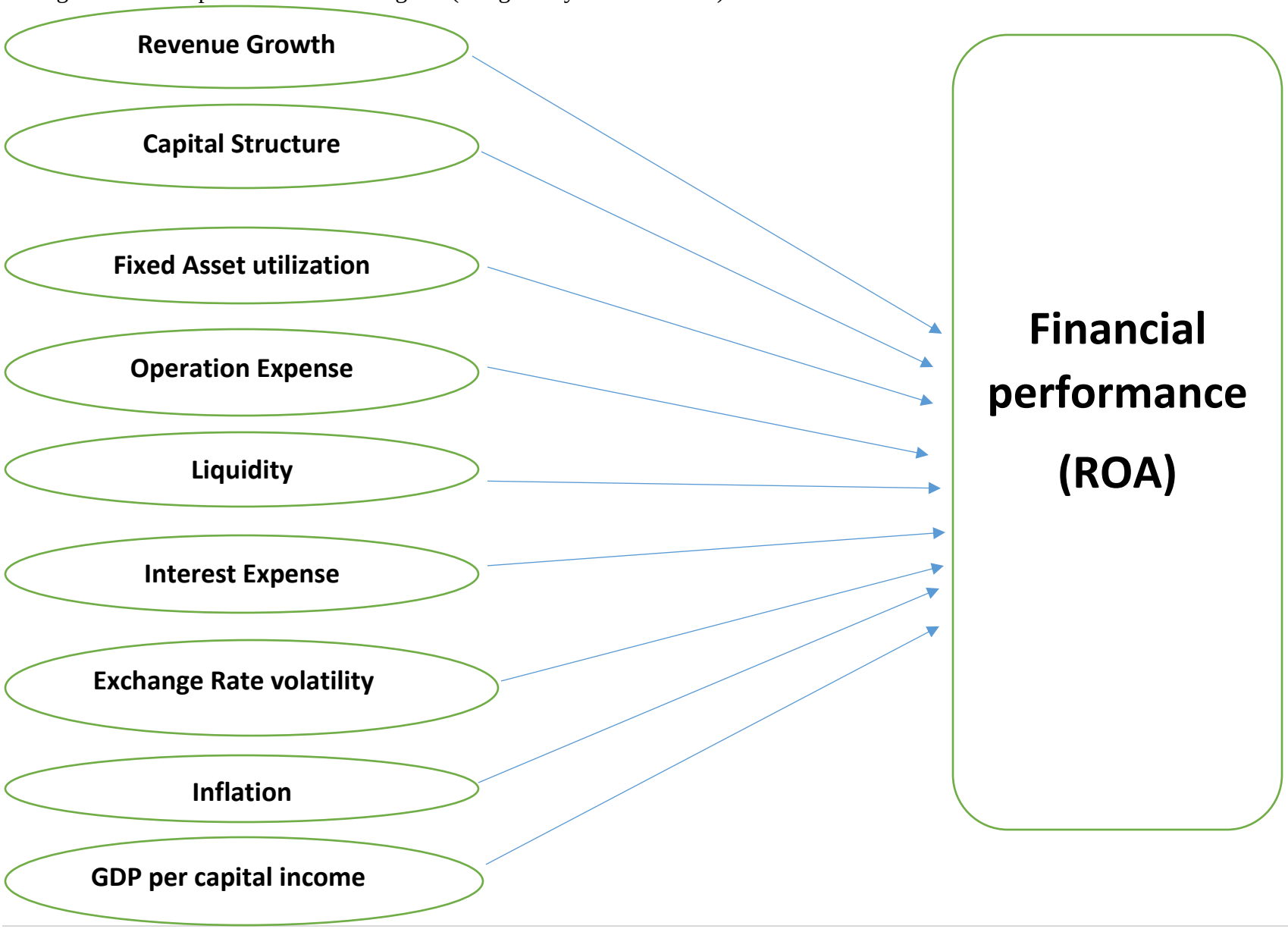
Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

On the globe a different study is conducted on determinates of firm's financial performance on different sectors and has identified different factors that empirically and significantly affecting the firm's performance. For instance Sidra Ali Mirza and Attiya Javed (2013) examines the possible association between financial performance of the firm and economic indicators, corporate governance, ownership structure, capital structure, and risk management for 60 Pakistani corporate firms, Mirie Mwangi and Jane Wanjugu Murigu (2015) studied the determinants of financial performance in general insurance companies in Kenya on the other hand Obare Nyaega , Wilfred N. Marangu and Jennifer Chepkorir (2015) studied determinants of financial performance in internet service providers in Kenya using different factors. In Ethiopia too regarding this topic number of research's conducted to pick some, Dawit Fekadu (2016), conducted a research on determinants of commercial banks financial performance in Ethiopia in relation to capital adequacy, asset quality, earning ability, liquidity management, bank size and exchange rate. Tadios Mulugeta (2016), conducted a comparative study on the financial performance of commercial banks in Ethiopia applying CAMEL model, as well Ermias Mengesha (2016), studied on financial performance of private commercial banks in Ethiopia considering a CAMEL approach. But most of the researchers studied in Ethiopia are focusing on same industries, so this study will look on the determinants of financial performance of ethio telecom which is totally different industry, and as far as the knowledge of the researcher there is no researches conducted in Ethiopian regarding the industry. This study will come up with different output and findings sine determinates of financial performance are dynamic through time to time, differ with the nature of operating of the firm, and place to place (Flamini, et al, 2009).

2.6 Conceptual Framework

According to Magenta and Mugenda (2003), a conceptual framework helps reader to quickly see proposed relationships between variables in the study diagrammatically. The conceptual framework is developed from the review of literature discussed above and presented in the diagram below. It shows the relationship between the dependent variable ROA a proxy to financial performance and explanatory variables revenue growth, inflation rate, deterioration of currency or fluctuation of exchange rate, capital structure, fixed asset utilization, operating expense, liquidity, GDP per capital income and the cost of capital/interest expense.

figure 2.1 conceptual framework diagram (designed by the researcher)



Chapter Three

3. Research Methodology

According to Koul, (2006) consistent and reliable research indicate that research conducted by using appropriate data collection instrument and sources which increase the credibility and value of research findings. This chapter explains the research design, data type & source of data, measurement of variables, model specification, data analysis technique and diagnostic test that the researcher used.

3.1 Research Design

To meet the general objectives of this study, which is to investigate the determinates of financial performance of ethio telecom, this study used explanatory research approach and a time serious data set to establish the relationship between the dependent variable and independent variables. Also, this study used a quantitative data type from secondary data source which is the audited annual financial statements of ethio telecom, to be collected from ethio telecom finance division for the internal factors variables and from national bank of Ethiopia for the external factor variables.

3.2 Data Type and Sources of data

To meet the research questions in this study, only a secondary source of data employed. For the variables revenue growth, capital structure, fixed asset utilization, operating expense, liquidity, and the cost of capital/interest expense the data obtained from the audited annual financial statements of ethio telecom for the period of 1993 up to 2015 used on the other hand for the explanatory variables of GDP per capital income, inflation rate, deterioration of currency or fluctuation of exchange rate the data from the website of world bank consumed.

3.3 Data Analysis Technic

After collecting all the necessary data, the data organized in a manner to time serious data set. A unit root test and a co-integration test conducted to know whether the variables are stationary or not (either around level or a deterministic linear trend) and to detect long run relationship between variables to avoid spurious regression problems. Regression technique used to determine the association between the dependent and independent variable's. The study adopted fully modified ordinary least square (FMOLS) multiple regression as the technique of analysis. The explanatory variable revenue growth, capital structure, fixed asset utilization, operating expense, liquidity, and the cost of capital/interest expense, GDP per capital income, inflation rate, deterioration of currency or fluctuation of exchange rate regressed against one independent variable return on asset proxy to financial performance. By the help of E-Views 8 (econometric software) the data regressed and based on the regression output the descriptive and inferential analysis presented.

3.4 Measurement of Variables

3.4.1 Dependent variable

Dependent variable used for this research is financial performance and it could be denominated by RoA, RoE and RoI. In this study, the researcher used financial performance proxy by return on asset (ROA) measured as earnings before tax divided by total assets and adopting the model Bala et al (2005). The reason that RoA taken as a proxy to financial performance is that, it shows the percentage of profit that a company earn in relation to its total asset in regardless of the asset arise from liability or equity and gives an idea as to how efficiently management use company asset to generate profit.

$$\text{RoA} = \frac{\text{Earnings before tax}}{\text{Total Assets}}$$

3.4.2 Independent Variables

The independent variables used for this study are revenue growth, capital structure, fixed asset utilization, operating expense, liquidity, cost of capital/interest expense, GDP per capital income, inflation rate, deterioration of currency or fluctuation of exchange rate. Their measurement mentioned on the table below.

Summary of Variables and its Measurement

Table 3.1 summary of variables

Variables		Notation	Measurement	Expected Effect
Dependent	Return on Asset	RoA	Net income before tax/Total Asset	
Independent	Revenue Growth	RG	Revenue/Total Assets	Positive
	Fixed Asset Utilization	FAU	Total Revenue/Net book value of Fixed Asset	Positive
	Capital Structure	CS	Total Debt/Total Equity	Negative
	Operation Expense	OE	Operation Expense (except interest exp. And depreciation /Total Revenue	Negative
	Inflations	INF	Source	Negative
	Exchange rate	ExC	Source	Negative
	Liquidity	LIQ	Current Assets/Current Liability	Positive
	Interest Expense	IntExp	Interest Expense / Gross income	Negative
	GDP per capital income growth	GDP INC	Sources	Positive

Table: 1 summery of variables and its measurement (compiled by the researcher)

(**+)-**sign implies expectations of positive relationship between the dependent and independent variables.

(**-)-**sign implies expectations of negative relationship between the dependent and independent variables.

3.5 Model Specification

To archive the objective of this research which is to identify the determinates of financial performance of ethio telecom, the researcher looks only the impact of revenue growth, capital structure, fixed asset utilization, liquidity, operation expense, interest expense, foreign exchange rate fluctuation, inflation and GDP per capital income growth on the financial performance of ethio telecom. thus, financial performance is the function of those independent variables and formulated as

Financial performance = f (RG, CS, FAU, LIQ, OE, IE, ERF, INF and GDP_INC)

To test the hypotheses and to analyze the relationship between variables econometrically, Fully-Modified OLS (FMOLS) regression model was employed, as per the empirical and theoretical frameworks to get the multiple regression results this equation formulated

$$ROA = \alpha + \beta_{1(RG)} + \beta_{2(FAU)} + \beta_{3(CS)} + \beta_{4(OE)} + \beta_{5(INF)} + \beta_{6(ERF)} + \beta_{7(LIQ)} + \beta_{8(IntExp)} + \beta_{9(GDP\ INC)} + \varepsilon_{it}$$

Where:

ROA- Return on Asset

α- Constant Coefficient

β_{1-9}- Regression coefficient for measuring independent variables

RG- Revenue Growth

FAU- Fixed Asset utilization

CS- Capital Structure

OE- Operation Expense

INF- Inflations rates

ERF-Exchange rate fluctuations

LIQ- Liquidity

IntExp- Interest Expense

GDP INC- GDP per capital income growth

Ɛit- Error component showing unobserved factor

Finally, a diagnostic test conducted to make sure that the data and methodology meets the basic assumptions of the regression models such as: -

- Normality test: to check for normality, descriptive statistics were used. Kurtosis and Skewness of the distribution of the data were examined
- Multi-collinearity test: to check existence of strong correlation between the independent variables was tested using correlation coefficient
- Autocorrelation test: to check the covariance among the error terms over time.

Chapter Four

4. Data presentation, Analysis and Discussion of the results

In the previous chapter, the research design and methodology presented, which are the road map to achieve the objective of the study and to test the hypothesis. In this chapter under data presentation, analysis and discussion model specification test, descriptive statics analysis, correlation analysis and regression analysis results discussion have been presented. Besides diagnosis test of the model presented.

4.1 Model Specification

One of the major characteristics of the data in most time serious is the inherent dependency present in data set that results from repeated measurements over time on a single subject. Which may result in the data to be non-stationary (unit root means that one whose statistical properties such as mean and variance are not constant) and cointegrated (means that the long run association ship between the variables). When a non-stationary and cointegrated data regressed without appropriate model the result and the analysis may become suppression.

To avoid such conflicts Augmented-Dicky fuller (unit root) test conducted on each variable to check the stationary of the data and the result shows that all the variables are non- stationary at level, but all the variables becomes stationary after first difference, as well Augumented Dicky fuller test conducted on the residual of the variables to check the cointegration and the result shows that the variables have a cointeration problem. Since the result of the test shows that there is a conintegration and most of time series economic variables are cointegrated and non-stationary, one of the three cointegration regression model have to be used. In this study, a Fully modified OLS (FMOLS) model used which is one of cointegration regression model and take in to consideration the non-stationary and cointegration of the variables.

4.2 Descriptive Analysis

In this part, the researcher discus about the descriptive statistics which is the first step of the study. Descriptive analysis deals with the descriptive statistics results of dependent and independent variables used in the study. In the below table mean, median. Maximum, minimum and standard deviation of return on asset (RoA) which is the dependent variable and a proxy to financial performance, revenue growth (RG), operation expense (OE), Liquidity (LIQ), inflation (INF), interest expense (IE), GDP-INC, fixed asset utilization (FAU), Interest rate fluctuation (ERF) and capital structure of the variables are calculated and its interpretations are presented.

Table 4.1 Descriptive statistics of dependent and independent variables

	ROA	RG	OE	LIQ	INF	IE	GDP_INC	FAU	ERF	CS
Mean	0.179462	0.222229	0.110479	2.233692	9.743	0.085613	4.964898	1.223513	10.58549	2.46388
Median	0.147983	0.199219	0.118501	2.314552	8.078	0.092089	7.450233	1.137431	8.635583	1.24826
Maximum	0.755942	0.549172	0.150997	3.441343	44.391	0.199169	10.40813	2.289555	21.18248	6.09457
Minimum	0.055971	0	0.034701	0.457178	-8.484	0.011556	-6.252734	0.717393	5	0.51794
Std. Dev.	0.133109	0.145582	0.038243	0.799212	11.86229	0.054734	4.742747	0.385321	4.902617	2.03749
Observations	23	23	23	23	23	23	23	23	23	23

Source: Descriptive statistics results from E-views 8

According to table 4.1, 23 observations comprised on each variable, as can see from table the mean value of return on asset (RoA) which a proxy to financial performance is 17.95% with a minimum of 5.6% and a maximum of 75.6%, meaning on the studied period from 1993-2015 ethio telecom on average earns 17.95% revenues from the total asset deployed. The standard

deviation of return on asset is 13.31%, this means that the return on asset varies on 13.31% from the mean during the period.

Furthermore, within the studied period, the revenue growth of the company increases highly with the mean of 22.22% with maximum of 54.91% and with a standard deviation of 14.56%. Besides, the descriptive statics shows that, the mean of the liquidity of the company is 2.233 with a minimum of 0.46 and maximum of 3.44 having a standard deviation 0.79. This means that time to time the company becomes more liquid. The mean value of other explanatory variables of operating expense, inflation, interest expense, GDP per capital income growth, fixed asset utilization, interest rate fluctuation and capital structure are 0.11, 9.74, 0.085, 4.94, 1.22, 10.58 and 2.46 respectively.

4.3 Diagnostic test

4.3.1 Multicollinearity Test

In statistics, multicollinearity is a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy. In this situation, the coefficient estimates of the multiple regression may change erratically in response to small changes in the model or the data. Multicollinearity does not reduce the predictive power or reliability of the model at least within the sample data set; it only affects calculations regarding individual predictors. That is, a multiple regression model with collinear predictors can indicate how well the entire bundle of predictors predicts the outcome variable, but it may not give valid results about any individual predictor, or about which predictors are redundant with respect to others. In any practical context, the correlation between explanatory variables will be non-zero, although this will generally be relatively benign in the sense that a small degree of association between explanatory variables will almost always occur but will not cause too much loss of precision. However, a problem occurs when the explanatory variables are very highly correlated with each other.

There are different arguments towards the multicollinearity problem. Hair et.al. (2006) argued that correlation coefficient below 0.9 may not cause serious multicollinearity problem. Cooper and Schendlar (2009) suggested that a correlation above 0.8 should be corrected. And, Chris

Brooks (2014) noted that correlation above 0.8 among explanatory variables may be sign of multicollinearity and have to be adjusted.

In this study, the existence of multicollinarity examined by looking at the matrix of correlations between the explanatory variables. The correlations between the explanatory variables are shown in table below. Accordingly, all correlation results are below 0.8, which shows that multicollinearity is not a potential problem for this study.

Table 4.2 correlation matrix of independent variables

	RG	OE	LIQ	INF	IE	GDP_INC	FAU	ERF	CS
RG	1	-0.1062	-0.0225	0.4181	-0.2618	0.3621	0.0213	0.2250	0.2083
OE	-0.1062	1	0.2169	-0.2216	0.6268	-0.3244	-0.3803	-0.7277	-0.1481
LIQ	-0.0225	0.2169	1	-0.1339	0.0356	-0.3037	-0.3756	-0.0229	-0.5913
INF	0.4181	-0.2216	-0.1339	1	-0.4440	0.1783	-0.0056	0.3154	0.0080
IE	-0.2618	0.6268	0.0356	-0.4440	1	-0.3128	-0.1146	-0.7464	0.1607
GDP_INC	0.3621	-0.3244	-0.3037	0.1783	-0.3128	1	-0.0329	0.3643	0.2358
FAU	0.0213	-0.3803	-0.3756	-0.0056	-0.1146	-0.0329	1	-0.1209	0.0762
ERF	0.2250	-0.7277	-0.0229	0.3154	-0.7464	0.3643	-0.1209	1	0.0910
CS	0.2083	-0.1481	-0.5913	0.0080	0.1607	0.2358	0.07626	0.0910	1

Source: correlation matrix from e-views 8

The highest correlation coefficient between the explanatory variables is 0.74641 among interest expense and interest expense fluctuation as shown on the table above hence there is no strong correlation and multicollinarity problem.

4.3.2 Normality Test

According to Brooks, (2008) to conduct hypothesis test about the model parameter, the normality assumption must be fulfilled. The normality assumption is about the mean of the residuals is zero. This assumption is required to conduct hypothesis testing, particularly if the sample size is small. For sample sizes that are sufficiently large, violation of the normality assumption is virtually inconsequential. Based on the central limit theorem, the test statistic will asymptotically follow the appropriate distribution even in the absence of error normality.

In smaller samples, it is important to meet this assumption for the p-values of the F-test to be valid (Brooks C., 2008). The most often used diagnostic statistics to test for normality of the residuals is the Bera-Jarque test. In this study, the normality of the data was checked with the popular Bera-Jarque test statistic. It measures the difference of the skewness and kurtosis of the series with those from the normal distribution. A normal distribution is not skewed and is defined to have a coefficient of kurtosis of 3. Bera-Jarque formalizes this by testing the residuals for normality and testing whether the coefficient of skewness and kurtosis are zero and three respectively. The Bera-Jarque probability statistics is also expected not to be significant (Brooks 2008).

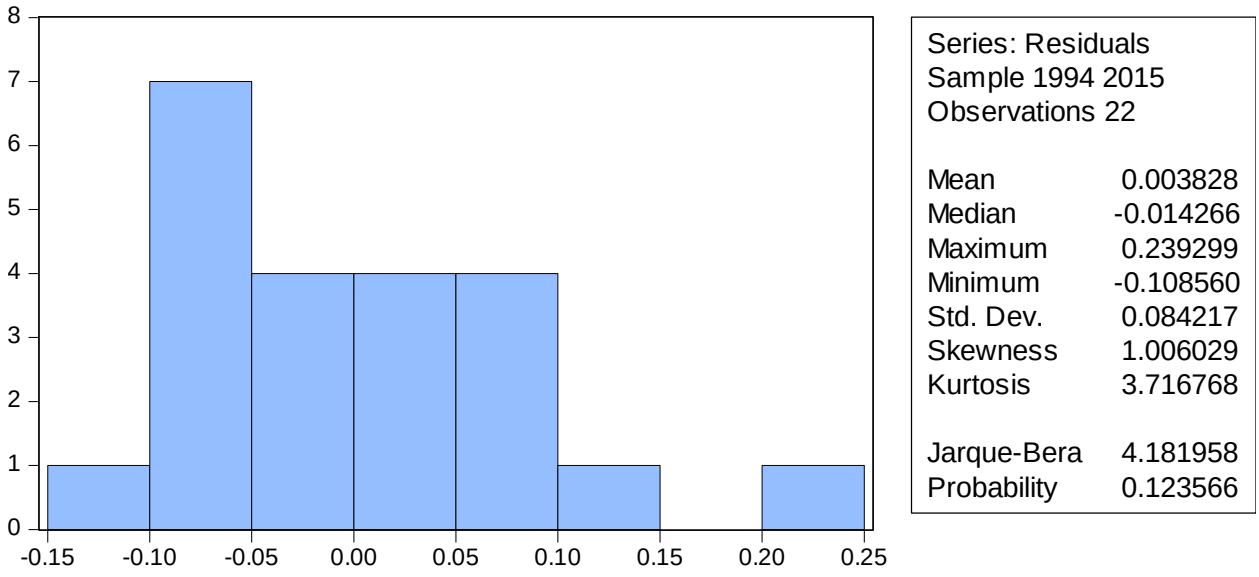
The hypothesis for the normality test were:

H0: Error term is normally distributed

H1: Error term is not normally distributed

The normality test result shown under figure 4.1 that the residuals are normally distributed having the value 12.35% which is greater than 5%. Therefor we fall to reject the null hypothesis therefore the residuals are normally distributed and conclude that the error terms of the modes are found to be normally distributed.

Figure 4.1 Normality test



Source: Normality test from e-views 8

4.3.3 Autocorrelation test

It is assumed that the covariance of the errors over time is zero. If the errors are correlated with one another, it would be stated that there is serial auto correlation. The coefficient estimates derived by using OLS are still unbiased, but they are inefficient, meaning that the standard errors are biased. Furthermore, the R square is likely to be inflated (Brooks C., 2008). A test of this assumption is therefore required. To test this assumption in this paper a Durbin-Watson(DW) test employed.

According to Brooks (2008), DW has 2 critical values: an upper critical value (dU) and a lower critical value (dL), and there is also an intermediate region where the null hypothesis of no autocorrelation can neither rejected nor failed to reject. Accordingly the null hypothesis is rejected and the existence of positive autocorrelation presumed if DW is less than the lower critical value; the null hypothesis is rejected and the existence of negative autocorrelation presumed if DW is greater than 4 minus the lower critical value; the null hypothesis is not rejected and no significant residual autocorrelation is presumed if DW is between the upper and 4 minus the upper limits; the null hypothesis is neither rejected nor not rejected if DW is between the lower and the upper limits, and between 4 minus the upper and 4 minus the lower limits. In short

- If $d < dL$ Reject H0: No autocorrelations errors
- If $d > dU$ Do not reject H0: No autocorrelations errors
- If $dL < d < dU$ Test is inconclusive

From figure 4.2 regression result, the DW result of this paper is 2.25 with the relevant critical values for dL= 0.545 & dU= 2.514 for 23 observation and 9 explanatory variables from Durbin-Watson statistic table at 5% significant point. So that the regression DW result 2.25 remains between dL= 0.545 and dU= 2.514 which implies that test is inconclusive. Hence, there is evidence to reject the H0: of No autocorrelations.

4.4 Correlation Analysis among dependent and independent variables

Correlation is a statistical relation between two or more variables, changes in the value of one variable is accompanied by systematic changes in the other. And it is also a way to index the degree to which, two or more variables have associated each other. Therefore, prior to regression result, it is important to check the correlation between different variables on which the analysis is built. A correlation coefficient is a way to put a value to the relationship. Correlation coefficients have a value of between -1 and 1. A "0" means there **is** no relationship between the variables at all, while -1 or 1 means that there is **a** perfect negative or positive correlation.

Table 4.3 Correlation matrix of dependent and independent variables

	ROA	RG	OE	LIQ	INF	IE	GDP_INC	FAU	ERF	CS
ROA	1									
RG	0.227168	1								
OE	-0.289097	-0.106283	1							
LIQ	-0.473429	-0.022533	0.216908	1						
INF	-0.008187	0.418195	-0.221665	-0.133938	1					
IE	-0.40031	-0.261887	0.626867	0.035607	-0.444047	1				
GDP_INC	0.236767	0.362125	-0.32443	-0.303736	0.178382	-0.312864	1			
FAU	0.077101	0.021384	-0.380378	-0.375655	-0.005603	-0.114626	-0.032974	1		
ERF	0.234699	0.225032	-0.727741	-0.022945	0.315483	-0.746414	0.364313	-0.120913	1	
CS	0.306528	0.208389	-0.148141	-0.591373	0.008012	0.160776	0.235878	0.07626	0.091091	1

Source: correlation results from e-views 8

As shown in the above table, revenue growth, interest rate fluctuation and capital structure are the highest positively correlated explanatory variables with return on asset, on the other side, liquidity and interest expense are highest negatively correlated explanatory variables against with return on asset.

4.5 Regression Analysis and Discussion

Figure 4.2 Regression results

Dependent Variable: ROA
Method: Fully Modified Least Squares (FMOLS)
Date: 11/06/17 Time: 11:05
Sample (adjusted): 1994 2015
Included observations: 22 after adjustments
Cointegrating equation deterministics: C
Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RG	0.324236	0.128683	2.519652	0.0269**
OE	-1.478031	0.686696	-2.152381	0.0524*
LIQ	-0.103045	0.023981	-4.297024	0.0010***
INF	-0.004841	0.001351	-3.583172	0.0038***
IE	-2.169084	0.463361	-4.681201	0.0005***
GDP_INC	-0.005024	0.003698	-1.358834	0.1992
FAU	-0.175923	0.051012	-3.448692	0.0048***
ERF	-0.020866	0.005986	-3.485815	0.0045***
CS	0.008355	0.009342	0.894404	0.3887
C	1.170366	0.209013	5.599485	0.0001

R-squared	0.610129	Mean dependent var	0.183165
Adjusted R-squared	0.317726	S.D. dependent var	0.135023
S.E. of regression	0.111529	Sum squared resid	0.149264
Durbin-Watson stat	2.247498	Long-run variance	0.003386

Source: regression results from e-views 8

Note: ******* Correlation coefficient significant at 1% significant level

****** Correlation coefficient significant at 5% significant level

***** Correlation coefficient significant at 10% significant level

As per the above figure 4.2, the R-square for the model is 61.01% which implies that 61.01% the explanatory variable of the study which is revenue growth, operation expense, liquidity,

interest expense, GDP per capital income growth, fixed asset utilization, interest rate fluctuation and capital structure explains the independent variable which is return on asset a proxy to financial performance. Whereas the remaining 38.09% could be explained by other explanatory variables not included in this study.

And figure 4.2 provide, beta(**β**) weight for each explanatory variable which shows the when independent variables increase by a unit the dependent variables increased or decreased by β amount.

The coefficient constant or β_0 is 1.170366, where the regression line intercept the Y-axis and it's the number of dependent variables while the explanatory variables meet 0, on the other hand the constant P-value is positive 0.0001 which implies that it is significant at 1% significant level. Henceforth the model equation became

$$ROA = 1.17 + 0.32(RG) - 0.17(FAU) + 0.01(CS) - 1.48(OE) - 0.01(INF) - 0.02(ERF) - 0.1(LIQ) - 2.17(IntExp) - 0.01(GDP\ INC) + \varepsilon it$$

Where:

ROA- Return on Asset

α- Constant Coefficient

$\beta_{1\text{-}9}$- Regression coefficient for measuring independent variables

RG- Revenue Growth

FAU- Fixed Asset utilization

CS- Capital Structure

OE- Operation Expense

INF- Inflations rates

ERF-Exchange rate fluctuations

LIQ- Liquidity

IntExp- Interest Expense

GDP INC- GDP per capital income growth

εit- Error component showing unobserved factor

Revenue growth (RG) and Return on asset (RoA)

In business growth is an imperative, not an option, but only few companies succeed in achieving sustained, profitable growth. Trade-off theory considers growth opportunities as an indicator for the firm success; these firms are stronger to face financial distress. Firms with good opportunities have a good reputation in getting funds, easier access to the finance markets and reflected in better performance for these firms.

From the figure above 4.2, the researcher detected that the coefficient of revenue growth is 0.324236 and its P-value is 0.0269, this express that, keeping other variables remain constant, when the revenue growth increased by 1 unit, the financial performance or the return on asset of ethio telecom increased by 0.324236 units. In other words, there is a positive and significant relationship between revenue growth and return on assets.

The finding of this research consistent with empirical study of Hutchinson, M. & Gul, A, (2006), they found that firms with high investment opportunities are associated with lower agency costs and better returns and with Asrat Kifle (2016).

Operation expense (OE) and Return on asset (RoA)

Operating expense ratio is a measurement of financial efficiency and is determined based on information derived from a business operation's financial statements specifically using the financials that determine gross income. Profit earned after subtracting from revenues those expenses that are directly associated with operating the business, such as cost of goods sold, administration and marketing, depreciation and other general operating costs. Operating earnings are an important measure of profitability, and since this metric excludes non-operating expenses such as interest and taxes, it enables an assessment of the company's core business profitability to be made.

The coefficient for operation expense in this study is -1.478031 having a P-value 0.0524 as shown on the figure 4.2 which implies that, keeping other variables remain constant, when the operation expense increased by 1 unit, return on asset or financial performance of the company decreased by 1.478031 units. In other words, there is a negative and insignificant at 5%

significance level but significant at 10% significance level relationship between operation expense and return on assets.

This finding consistent to the finding of, NDI G. (2014), Pasiouras and Kosmidou (2007), Bourke (1989) and Kosmidou (2008). They have also found that poor expense management is among the main contributors to poor financial performance.

Liquidity (LIQ) and Return on asset (RoA)

Liquidity relates to the management of current assets and current liabilities of a firm. The normal expectation is that a firm should always be liquid to meet financial obligations as they arise in order not to negatively affect performance. Yet, a firm cannot make profit and improve its performance if it keeps cash and its equivalent without investing such fund into profitable projects.

Singh and Pandey (2008) In their research suggested that, for the successful working of any business organization, fixed and current assets play a vital role, and that the management of working capital is essential as it has a direct impact on profitability and liquidity. They studied the working capital components and found a significant impact of working capital management on profitability for Hindalco Industries Limited.

According to this study, as can be seen in the above figure 4.2, the coefficient for liquidity is --0.103045 which is opposite to the expectation of the researcher and with a P-value 0.0010%, this indicates that, when the value of liquidity increased by 1 unit, the value of return on asset or financial performance decreased by 0.103045, keeping other variables reaming constant. In other words, there is a negative and significant relationship between liquidity and return on assets.

This finding in line with the finding of Qasim and Ramiz (2011); Amarjit and Neil (2011) and Abang (2012) but contradict with the finding of Ben et al (2013); Victor et al (2013); Zehra and Azam (2012) and Gebeyehu Abebe (2017).

The possible reason of the finding could be there may be a lot of tide up cash in the bank without investment since the company perform its investment using vender financing.

Inflation (INF) and Return on asset (RoA)

The economic conditions of a country most likely affect firm's performance, and therefore performance will probably change depending on the country's condition, as well. One indicator for economic conditions is the inflation of a country. Mirza and Javed (2013) found that a higher inflation rate has a negative effect on firm performance.

In this study, inflation has a coefficient value -0.004841 with a P-value 0.0038 as can see from figure 4.2, meaning holding other explanatory variables constant, when inflation increased by 1 unit, return on asset decreased by 0.004841. In other words, there is a negative and significant relationship between inflation and return on assets/financial performance.

This study pursuit to the finding of De Gregorio (1993), Fischer (1993), Barro (1998), Bullard and Keating (1995), Clark (1997), Bruno and Easterly (1998), and Fischer (2005), Goldsmith (1969), McKinnon (1973), King and Levine (1993), Levine and Zervos (1998), Beck et al. (2000), and Beck and Levine (2004) as the concluded that Inflation has an adverse effect on capital accumulation and investment and deteriorates income distribution.

Interest expense (IE) and Return on asset (RoA)

Interest expense is the amount paid for fund borrowed or the firm's cost of capital is the rate of return required by creditors for supplying capital for financing the firm's investment and projects. Cost of capital or interests expense is one of the economic condition of the country which could affects firm's financial performance.

As can see from the above figure 4.2, the coefficient for interest expense (IE) is -2.169084 and its P-value is 0.0005. This indicates that holding other variables constant at their average value, when the interest expense (IE) increased by 1 unit, return on asset decreased by 2.169084. Which indicates that there is a negative and significant relationship between interest expense and financial performance.

This finding in line with Ntim (2009) finding which thought that cost of borrowings can negatively influence the firm's capability to generate finances and invest in projects.

GDP per capital income growth (GDP_INC) and Return on asset (RoA)

An increase in the GDP growth which expected to increase individual per capital income will lead to higher consumption among individuals and finally to an increased growth in sales from the side of the firms. Countries with historically lower levels of GDP per capita are more likely to experience higher growth than rich countries since the growth rate depends on the relation between the initial level of the country (Barro, 2009).

According to the result of this study for the one of explanatory variables in this model GDP per capital income the coefficient is -0.005024 and its P-value is 0.1992. This means that, when GDP per capital income increased by 1unit, return on asset decreased by 0.005024. In general, there is a negative but insignificant relationship between GDP per capital income and financial performance.

This finding adversely related with the finding of Liliana Gomez (2016), and the expectation of the researcher and it's may be due to the growth of the inflation exceeding the GDP per capital income, hence needs further investigation.

Fixed asset utilization (FAU) and Return on asset (RoA)

Assets have significant role in determining the efficiency and the profit ratio of a firm. Since a firm acquires plant and machinery and other productive fixed assets for generating sales. Therefore, efficiency in the use of fixed assets should be judged in relation to sales. Pandey (1999) opined that fixed assets turnover ratio measures the efficiency with which a firm is utilizing its investment in fixed assets. It also indicates the adequacy of sale in relation to investment in fixed assets. Generally, a high fixed assets turnover ratio indicates efficient utilization of fixed assets in generating sales, while a low ratio indicates inefficient management and utilization of fixed assets.

Based on the regression result on this study and stated on figure 4.2, the coefficient of fixed asset utilization is -0.175923 with P-value 0.0048. This implies keeping other variable reaming constant at their average value, and when the value of fixed asset utilization (FAU) increased

by 1 unit, return on asset decreased by 0.175923 units. In other words, there is a negative and significant relationship between fixed asset utilization and financial performance.

This finding is consistent with the finding of Thyperson (1995) and Berk, DeMarzo & Harford (2009).

Interest rate fluctuation (ERF) and Return on asset (RoA)

Interest rate has a wide and varied impact upon the economy. When it is raised, the general effect is to lessen the amount of money in circulation, which works to keep inflation low. It also makes borrowing money more expensive, which affects how consumers and businesses spend their money; increases expenses for companies, lowering earnings somewhat for those with debt to pay; and, finally, it tends to make the stock market a slightly less attractive place to investment (Saunders and Cornett,2008). The lower interest rates give companies an opportunity to borrow money at lower rates, which allows them to expand their operations and also their cash flows. In a low interest rate regime, companies can increase profitability by reducing their interest expenses. However, in a rising interest rate regime, since interest expenses rise, profitability is lowered.

The regression result of this study on figure 4.2 state the coefficient for interest rate fluctuation as -0.020866 and its P-value is 0.0045. Which explains that, keeping other variables remain constant and when the value of interest rate fluctuation increased by 1 unit, return on asset decreased by 0.020866 units. In general, there is a negative and significant relationship between interest rate fluctuation and financial performance.

The finding of this study is consistent with the finding of Thakor, Hong & Grenbaum (1981), Pierre Roberst and Christopher (2009) and with Gruber and Vigfusson (2012).

Capital structure (CS) and Return on asset (RoA)

Capital structure is an important factor that determines the performance of a firm. Capital structure refers to the ratio of debt and equity financing. In case if more debt financing the company should face certain bankruptcy risk, but there are also some tax and monitoring

benefits associated with debt financing (Su and Vo, 2010). It also mitigates the agency conflict by reducing the free cash flow of the firm. There should be an appropriate capital structure that generates the maximum profit for the organization, as too less equity financing increases the control of the owners to a large extent (Abu-Rub, 2012).

According to the output of this study, the coefficient of capital structure is 0.008355 and its P-value 0.3887 as shown on the figure 4.2. This implies that, holding other independent variables constant at their average value, and when the value of capital structure increased by 1 unit, the value of return on asset increased by 0.008355 which shows that there is a positive but insignificant relationship between capital structure and financial performance.

4.6 Hypotheses testing

As stated in chapter one the broad objective of this study was to identify determinates of financial performance of ethio telecom. To meet the objective of the study nine hypotheses were formulated. The result of each hypothesis discussed here below

Hypothesis 1: There is a positive and significant effect between revenue growth and financial performance.

As shown in the regression result above there is a positive relationship between revenue growth and financial performance as it is expected and also revenue growth has a significant effect on the financial performance. Revenue growth is significant at 5% and 10% significance level. Since the P-value of revenue growth is 2.69%, the researcher failed to reject the null hypothesis. Therefore, revenue growth has a positive and significant effect on the financial performance of ethio telecom.

Hypothesis 2: There is a negative and significant effect between inflation and financial performance.

One of the explanatory variable used on this study is inflation, and as presented in the regression table it has a negative effect on financial performance as expected. Also, the P-value for inflation shown as 0.38% which implies that researcher failed to reject the null hypothesis

of “there is a negative and significant effect between inflation and financial performance’ at 1%, 5% and 10% significant level. Therefore, in this study periods inflation has a negative and significant effect on financial performance of ethio telecom.

Hypothesis 3: There is a negative and significant effect between interest expense and financial performance.

The regression coefficient of this explanatory variable suggests that there is a negative relationship between interest expense and financial performance. The P-value for this explanatory variable is 0.05%, hence the hypothesis which state, there is negative and significant relationship between interest expense and financial performance failed to be rejected at a significance level of 1%, 5% and 10%. Therefore, interest expense has a negative and significance effected on financial performance.

Hypothesis 4: There is a negative and significant effect between exchange rate fluctuation and financial performance.

As expected by the researcher exchange rate fluctuation has a negative effect on return on asset which a proxy to financial performance. The P-value of exchange rate fluctuation is 0.45%, which forced the researcher to fall to reject the null hypothesis at a significant level of 1%, 5% and 10%. Therefore, exchange rate fluctuation has a negative and significant effect on the financial performances of ethio telecom during the studied period.

Hypothesis 5: There is a negative and significant effect between capital structure and financial performance.

Capital structure which calculated by dividing total debt to total equity, has a positive relationship with return on asset, which is out of the expectation of the researcher. Also, it has a P-value of 38.87% and accordingly the researcher rejects the null hypothesis. Therefore, during the studied period capital structure has no significant effect on the financial performance of ethio telecom even if it affects positively.

Hypothesis 6: There is a negative and significant effect between operation expense and financial performance.

As expected by the researcher, the coefficient of operation expense indicates that there is a negative relationship between operating expense and financial performance. On the other side,

the P-value of the operating expense is 5.24% which forced the researcher to reject the hypothesis. Therefore, operating expense has a negative effect on financial performance but not significant at 5% significance level during the studied period.

Hypothesis 7: There is a negative and significant effect between fixed asset utilization and financial performance.

The coefficient of fixed asset utilization from the regression table shows that there is a negative relationship between fixed asset utilization and financial performance. The P-value for fixed asset utilization is 0.48%, so that the researcher failed to reject the hypothesis. Therefore, fixed asset utilization has a negative and significant effect on financial performance of ethio telecom.

Hypothesis 8: There is a negative and significant effect between liquidity and financial performance.

In contradictory to the expectation of the researcher which were more liquid companies can invest and being strong on financial performance but the coefficient of this explanatory variable shows that it has a negative effect to financial performance. The P-value for the liquidity is 0.10% and the researcher failed to reject the hypothesis. Therefore, liquidity has a significant effect on financial performance of ethio telecom but it is negatively.

Hypothesis 9: There is a negative and significant effect between GDP per capital income growth and financial performance.

Unfortunately, the coefficient of GDP per capital income growth shows that there is a negative relationship between GDP per capital income growth and return on asset which is out of the expectation of the researcher. P-value for GDP per capital income growth is 19.92% which ordered the researcher to reject the hypothesis that state there is a negative and significant effect between GDP per capital income growth and financial performance. Henceforth, the explanatory variable GDP per capital income growth has no significant effect on the financial performance of ethio telecom.

To summarize, from the nine hypotheses, on six of the hypothesis test the researcher failed to reject and on three of the hypothesis test able to reject. On the failed hypothesis, the researcher reach on conclusion that revenue growth, liquidity, inflation, interest expense, fixed asset utilization, and interest rate fluctuation have a significant effect on the financial performance of ethio telecom.

Table 4.4 Hypothesis summary

Hypothesis	P-value	Relationship	Decision Reject/Failed to reject
Hypothesis 1: There is a positive and significant effect between revenue growth and financial performance.	0.0269	Positive	Failed to reject
Hypothesis 2: There is a negative and significant effect between inflation and financial performance.	0.0048	Negative	Failed to reject
Hypothesis 3: There is a negative and significant effect between interest expense and financial performance.	2.1690	Negative	Failed to reject
Hypothesis 4: There is a negative and significant effect between exchange rate fluctuation and financial performance.	0.0208	Negative	Failed to reject
Hypothesis 5: There is a negative and significant effect between capital structure and financial performance.	0.0083	Positive	Reject
Hypothesis 6: There is a negative and significant effect between operation expense and financial performance.	1.4780	Negative	Failed to reject @ 10% sig. level
Hypothesis 7: There is a negative and significant effect between fixed asset utilization and financial performance.	0.1759	Negative	Failed to reject
Hypothesis 8: There is a negative and significant effect between liquidity and financial performance.	0.1030	Negative	Failed to reject
Hypothesis 9: There is a negative and significant effect between GDP per capital income growth and financial performance.	0.0050	Negative	Reject

Source: Compiled by researcher

Chapter Five

5. Summary, Conclusion and Recommendation

5.1 Introduction

The objective of this study was to investigate determinates of financial performances in case of ethio telecom. The previous chapter presented the analysis of the finding, this chapter present the summary, discussions and conclusions from the research findings as per the objective of the study. Based on the findings of this study, recommendations have been given on determinates of financial performance of ethio telecom.

5.2 Summary and conclusion

Telecommunications sector is characterized as one of the most important infrastructural sectors with a huge influence on GDP growth, both directly by own performances, and indirectly by affecting the success of other sectors. In that sense, it is often stressed that it represents the driving force of national economy development, especially in developing countries. Having this in mind, it is relatively easy to say that evaluation of financial performance, investment capabilities and long-term profitability should represent an important information input for economic-policy regulators. Detecting the determinates of financial performance, problems that limit growth and future profitability contribute to improvement of economic and financial performances by means of raising quality of planning and strategic decisions. Lot of researchers conducted on this topic, but determinants of financial performance have been argued for many years and still unresolved issues in the corporate finance literature. Indeed, what makes the financial performance determinants debate exciting is that determinants are dynamic through time to time and differ with the nature of operating of the firm from place to place (Flamini, et al, 2009). According to the researcher best knowledge, the literature on determinates of financial performance of telecom industries in Ethiopia is very scarce and only few researchers gave little attention to this area. Due to gap in literature, present study can be used as guideline for making important policy implications and be input for academic future researchers. Therefor this study investigated determinates of financial performance of ethio

telecom using both the internal and external factors and to what extent these determinates affecting the financial performance.

The main objective of this study was to investigate determinates of financial performances in case of ethio telecom, to achieve this objective the researcher used explanatory research approach and a time serious data set to establish the relationship between the dependent variable and independent variables. Also, the study used a quantitative data type from secondary data source of the audited annual financial statements of ethio telecom, collected from ethio telecom finance division for the studied period from 1993 – 2015 for the internal factors variables and from national bank of Ethiopia and other for the external factor variables.

Fully-Modified OLS (FMOLS) regression model used to regress the data by the help of E-View 8 (econometric software) to see the effects of the explanatory variables impact of revenue growth, capital structure, fixed asset utilization, liquidity, operation expense, interest expense which considered as internal factors and foreign exchange rate fluctuation, inflation and GDP per capital income growth as external factors on the financial performance of ethio telecom.

In conclusion, as per the regression result of this study for the explanatory variables revenue growth and capital structure the coefficient is positive and this implies that as the portion value of each of this variable increased at certain value and other explanatory variables value remain constant the financial performance proxy by return on asset increased, but when examine the significance of the variables only the revenue growth explanatory variable has a statistical significance on the financial performance at 5% significance level. Beside the coefficient of operation expanse, liquidity, inflation, interest expense, GDP per capital income growth, fixed asset utilization and interest rate fluctuation have a negative value, which indicates when the value of each variables increased at certain amount holding the value of other variables value remain the same, the financial performance has been decreased. But while checking their significance on the financial performance, liquidity, inflation, interest expense, fixed asset utilization and interest rate fluctuation have a significant effect on financial performance at 1% significance level, on the other side operation expense is not significant at 5% significance level but significant at 10% significance level during the studied period but the researcher took 5% significance level as a benchmark point.

5.3 Recommendation

Findings of this study are helpful for the management of ethio telecom and to respective stock holders of the company to establish polices according to the finding. Based on the researcher finding and conclusion above, the researcher provides the under mentioned recommendation:

- From the overall result the researcher noticed that operating expense of the organization affecting the company's financial performance very badly even inflation and interest rate fluctuation. Hence, the management of ethio telecom must look on this and consider further investigation and actions.

- During the studied period interest expense and exchange rate volatility were highly and significantly affecting ethio telecom financial performance. Therefore, management of the company must take special consideration on these issues before having additional borrowing agreements.

- Based on the result of this study liquidity affecting financial performance negatively and significantly, which must be carefully evaluated and correction action to be taken by finance division. According to Veira, (2010), high liquidity can be as undesirable as a low one, also add that current asset are usually less profitable than fixed ones.

- In general, the financial performance of ethio telecom measured by RoA, significantly and positively affected by revenue growth, on the other side its significantly and negatively affected by liquidity, inflation, interest expense, fixed asset utilization and interest rate fluctuation. Hence, ethio telecom managements and finance division have to emphasize on those variables and develop polices accordingly and conduct further investigation on this topic.

Finally, this study investigates determinates of financial performance of ethio telecom, but those explanatory variables included in this study are not exhaustive. Therefore, other researcher may include other macroeconomic variables.

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Appendix

Appendix I: Variables and its Measurement

Variables		Notation	Measurement	Expected Effect
Dependent	Return on Asset	RoA	Net income before tax/Total Asset	
Independent	Revenue Growth	RG	Revenue/Total Assets	Positive
	Fixed Asset Utilization	FAU	Total Revenue/Net book value of Fixed Asset	Positive
	Capital Structure	CS	Total Debt/Total Equity	Negative
	Operation Expense	OE	Operation Expense (except interest exp. And depreciation /Total Revenue	Negative
	Inflations	INF	Source	Negative
	Exchange rate	ExC	Source	Negative
	Liquidity	LIQ	Current Assets/Current Liability	Positive
	Interest Expense	IntExp	Interest Expense / Gross income	Negative
	GDP per capital income growth	GDP INC	Sources	Positive

Appendix II: Data regressed

Year	RoA	RG	CS	FAU	OE	IntExp	LIQ	ERF	INF	GDP INC
1993	0.25941971		5.391991466	1.060017944	0.148136292	0.199169385	1.133172933	5.00000000	3.54300000	9.15845632
1994	0.26311007	0.13024732	5.729425909	1.137431279	0.144165348	0.186373391	1.216722164	5.46500000	7.59400000	(0.34364209)
1995	0.34170411	0.54917237	6.094574259	1.709013461	0.116015488	0.133449572	1.722756533	6.15833333	10.02200000	2.64839394
1996	0.34081809	0.11637650	5.527172847	1.524220602	0.094751267	0.106699019	2.392008148	6.35167500	(8.48400000)	8.91918533
1997	0.30489497	0.10342359	0.918475130	1.660517009	0.120377114	0.092849229	2.986066948	6.70934167	2.39500000	0.05340627
1998	0.25900652	0.12054163	0.958225300	1.522551794	0.118501367	0.150734489	2.58156746	7.11590833	0.89500000	(6.25273441)
1999	0.21938561	0.00704021	0.948997093	1.414249823	0.113395956	0.125741568	2.226474553	7.94225000	7.94100000	2.15906788
2000	0.23268774	0.16557943	0.821893202	1.046639778	0.148933254	0.122753854	2.31455187	8.21725833	0.66200000	3.04859548
2001	0.29285315	0.19921876	0.686851613	0.862322300	0.146292846	0.114917076	2.972072605	8.45749167	(8.23800000)	5.21013881
2002	0.28290719	0.05786252	0.657412829	0.836379011	0.149458358	0.065660852	2.935446941	8.56775000	1.65400000	(1.37234570)
2003	0.27057709	0.13890625	0.768824377	0.717393058	0.150997392	0.065502759	3.441343023	8.59968333	17.76200000	(4.92334802)
2004	0.25446778	0.19481772	0.517939033	0.805553272	0.141390765	0.092088513	2.287373752	8.63558333	3.25600000	10.40812788
2005	0.21451799	0.45063665	0.682551002	1.140189711	0.146878075	0.128581662	3.062251029	8.66644167	12.94500000	8.75441304
2006	0.27352715	0.36970544	0.931708030	0.993218775	0.129691181	0.106933082	2.805305554	8.69861583	12.31000000	7.84972727
2007	0.31914949	0.34896342	0.873744956	1.253021742	0.094349725	0.051587728	2.253036057	8.96595000	17.23800000	8.49816278
2008	0.32939972	0.25829863	1.280672281	1.706466657	0.078270549	0.022341075	1.282961899	9.59974167	44.39100000	7.87915153
2009	0.29500592	0.24080892	1.127358075	2.289555238	0.082473946	0.011555621	1.200914412	11.77759967	8.46800000	5.96026306
2010	0.32140355	0.34337154	2.849675563	1.057609126	0.105912641	0.018484141	2.310459268	14.40958981	8.13700000	9.61633504
2011	0.31844619	0.38926760	4.048157627	0.830563588	0.079235880	0.034401468	2.742562949	16.89922576	33.22400000	8.28411660
2012	0.37745674	0.30525670	4.336837584	0.775221536	0.048776438	0.056136908	2.234466376	17.70476138	22.77000000	5.83016331
2013	0.41614371	0.31442336	1.896870690	1.130057208	0.049022152	0.036763229	3.363572149	18.57992917	8.07800000	7.73456436
2014	0.35871834	0.04850681	1.659758563	1.325706055	0.036073495	0.026066475	2.331233045	19.76166670	7.39200000	7.45023309
2015	0.39793770	0.25884599	4.07803997	1.34290827	0.05180114	0.02030873	1.43187744	21.18248000	10.13400000	7.62222469

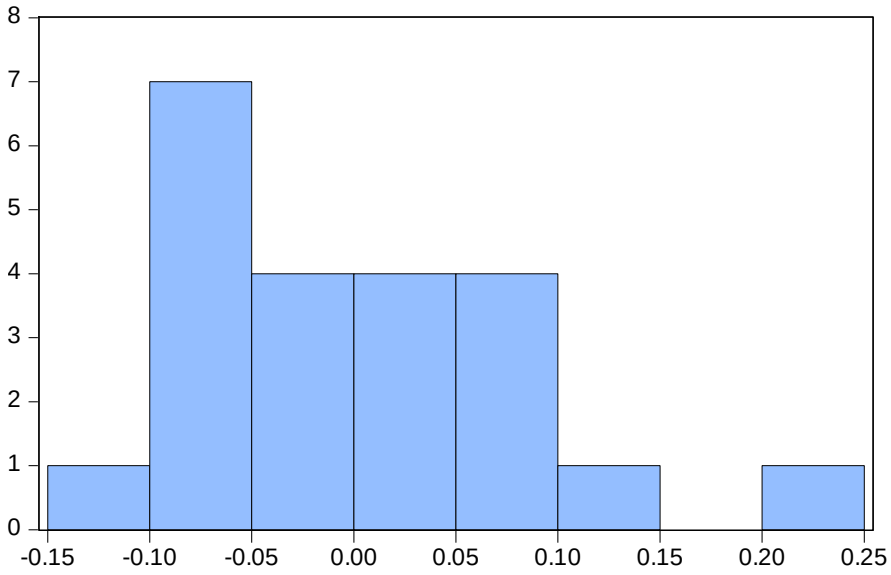
Appendix III: Regression results

Dependent Variable: ROA
Method: Fully Modified Least Squares (FMOLS)
Date: 11/06/17 Time: 11:05
Sample (adjusted): 1994 2015
Included observations: 22 after adjustments
Cointegrating equation deterministics: C
Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RG	0.324236	0.128683	2.519652	0.0269
OE	-1.478031	0.686696	-2.152381	0.0524
LIQ	-0.103045	0.023981	-4.297024	0.0010
INF	-0.004841	0.001351	-3.583172	0.0038
IE	-2.169084	0.463361	-4.681201	0.0005
GDP_INC	-0.005024	0.003698	-1.358834	0.1992
FAU	-0.175923	0.051012	-3.448692	0.0048
ERF	-0.020866	0.005986	-3.485815	0.0045
CS	0.008355	0.009342	0.894404	0.3887
C	1.170366	0.209013	5.599485	0.0001

R-squared	0.610129	Mean dependent var	0.183165
Adjusted R-squared	0.317726	S.D. dependent var	0.135023
S.E. of regression	0.111529	Sum squared resid	0.149264
Durbin-Watson stat	2.247498	Long-run variance	0.003386

Appendix IV: Normality test



Series: Residuals	
Sample 1994 2015	
Observations 22	
Mean	0.003828
Median	-0.014266
Maximum	0.239299
Minimum	-0.108560
Std. Dev.	0.084217
Skewness	1.006029
Kurtosis	3.716768
Jarque-Bera	4.181958
Probability	0.123566