
**Addis Ababa University**

**College of Business and Economics**

**Department of Accounting and Finance**

**(Graduate Program)**

# *Assessment of Individual Investors' preference to invest on the Shares of Ethiopian Insurance Share Companies; after IPO*

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

**Addis Ababa University**

**Addis Ababa, Ethiopia**

**November, 2015**

## STATEMENT OF DECLARATION

I, Nadew Birhanie, declare that this study entitled "Assessment of Individual investors' preference to invest on the Shares of Ethiopian Insurance Share Companies; after IPO" is my own work. I have carried out the research work independently with the guidance and support of the research advisor. As far as my knowledge, this study has not been submitted to any degree/diploma in Addis Ababa University or any other institutions. It is done in partial requirement of the MSc Degree in Accounting and Finance.

Nadew Birhanie: _____

November 2015

## STATEMENT OF CERTIFICATION

This is to certify that Nadew Birhanie has carried out his research work on the topic entitled with "Assessment of Individual Investors' preference to invest on the Shares of Ethiopian Insurance Share Companies; after IPO". This work, to the best of my knowledge, is original in nature and is suitable for submission for the award of MSc in Accounting and Finance.

Advisor: Gebremedihn Gebrehiwot

Date: November 2015

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# Acknowledgment

First of all, I would like to express my sincere gratitude to my advisor, Ato Gebremedhin Gebrehiwot, who has encouraged, mentored and supported me from the beginning to the end that gave me the opportunity to understand the subject matter and complete the thesis.

Besides my advisor, I would like to extend a grateful acknowledgement to the sales officers of the insurance companies who have helped me in the provision of the necessary information while conducting the interview. I would also like to thank staff of National Bank of Ethiopia who have helped me in getting the secondary data of those sampled insurance companies.

I thank God that I am a product of my parents, that they cultivated me with their intelligence and energy for life, with their thirst for knowledge and their love.

## Abstract

A number of studies have been undertaken to identify the factors influencing individual investor's decision preference to invest in stock markets by considering specific factors of both financial and non-financial like social factor, cultural factors, psychological perception and others. This study aimed to investigate the determinant factors that influence individual investors' preference to invest on the shares of Ethiopian private insurance share companies. In Ethiopia the number of private insurance companies is increasing from 8, in 2005, to 16 in 2015 which holds around 72 % of the market share of the insurance industry. The study deployed both primary and secondary data, the purpose of the secondary data is to supplement findings of the primary data. The primary data is about financial, social, cultural and psychological perception of individual shareholders which was obtained and analyzed through questionnaire from insurance companies shareholders and the secondary financial panel data covers the period from 2003 to 2014 pertaining to eight (8) Ethiopian insurance share companies about the profitability, leverage, firm size, general inflation of Ethiopia and one year lagged value of earning per share as possible determinant factors of individual investors' preference which is proxied by earning per share. The empirical results of both the primary data and the regression output of the secondary data revealed that financial, social, cultural and psychological factors have an impact on the investment decision preference of the individual investors. Accordingly investors recommended to look at insurance companies choices relative to comparable companies based on multiple factors of both financial and non-financial factors related to social, cultural, psychological, profitability, firm size with regard to total asset and other historical financial performances. In addition insurance companies should enlighten investors on the factors that are necessary to maximize their wealth in the capital market that will affect investors' investment decision.



**Key words**: Insurance shareholders, investors' preference, non- financial factors.

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## Abbreviations and Acronyms

**Abbreviations:**

| | |
|---|---|
| APT | Arbitrage Pricing Theory |
| BT | Bera—Jarque |
| BVP | Book Value Per |
| CAPM | Capital Asset Pricing Model |
| CLRM | Classical linear regression model |
| CSA | Central Statistical Agency |
| DPS | Dividend per Share |
| DW | Durbin-Watson |
| EIC | Ethiopian Insurance Corporation |
| EMH | Efficient market hypothesis |
| EPS | Earnings per Share |
| INF | Inflation |
| IPO | Initial Public Offering |
| NBE | National Bank of Ethiopia |
| OLS | Ordinary Least Square |
| PE | Private Equity |
| ROA | Return on Assets |
| SPSS | Statistical Package for the Social Science |

**Acronyms:**

| | |
|---|---|
| BRIC | Brazil, Russia, India and China |
| EMPEA | Emerging market private equity association |
| NIC | National Insurance Company of Ethiopia |

# CHAPTER ONE: INTRODUCTION

## 1.1 Background to the Study

Investment decisions are made by investors and investment managers. Investors commonly perform investment analysis by making use of fundamental analysis, technical analysis and judgment. Investment decisions are often supported by decision tools. Investor market behavior derives from psychological principles of decision making to explain why people buy or sell stocks. These factors will focus upon how investors interpret and act on information to make investment decisions. One of the investment opportunity that is currently available in Ethiopia is the shares of insurance companies.

Insurance is a financial device for transferring or shifting risk from an individual or entity to a large group with the same risk. This is accomplished through a contract, the insurance policy, with an insurance company. Under this arrangement, the individual, along with other insured, pays a sum to the insurance company. In turn, the insurance company agrees to pay an amount of money (reimbursement) to the individual, or on behalf of the individual, if the events described in the policy occur. Insurance is used to indemnify, or restore, a policyholder to a pre loss condition. The individual accepts a known cost, the premium, in exchange for payment of a large, uncertain financial loss. The insurance company combines, or pools, a large number of similar units (homes, autos, businesses, etc.) and thus can predict losses within these units.

As important as insurance is to modern society, it is not a new idea. The insurance industry enjoys a long and sometimes colorful history dating back many centuries. The earliest form of insurance occurred when wealthy Chinese merchants along the Yangtze River decided that it was too risky to place all their merchandise on a single vessel and sail it down the river. To reduce their risks, they split the shipment into smaller portions and placed them on several boats. They knew that it was unlikely all the vessels would sink or suffer damage and that if one did sink, the majority of the cargo would reach its destination safely. Although this arrangement was not formally called

insurance, it was the forerunner of the modern insurance company, which also recognizes the importance of spreading risk (KPMG A. F., 2013).

The insurance market in Africa is under-developed; apart from South Africa, Namibia, and Mauritius, all countries have very low penetration ratios. This is mainly because most Africans are still too poor to afford insurance. However, growth prospects are substantial thanks to rising incomes, increased participation by foreign companies, and more innovative insurance products. Private equity is experiencing a boom as the perceived risks of investing on the continent decline and as global liquidities seek profitable opportunities elsewhere than in depressed developed markets. While the agriculture, mining and energy sectors have always been important in Africa's economy, the importance of food production especially is increasing on the back of global population growth. Perhaps the most exciting opportunities in this space at the moment are the result of Africa's own demographic changes, which are fueling urbanization, employment and growth in disposable income (KPMG A. F., 2013).

Private equity (PE) investment into Africa, and fund managers' ability to raise capital for funds dedicated to the continent, are both trending strongly upward. In 2011 private equity individual investors' closed $3bn worth of deals in Africa, up from $890m in 2010. The Emerging Markets Private Equity Association (EMPEA) estimates that a total of $605m was invested into sub-Saharan Africa over the first half of the year 2012. Bureau Van Dijk's Zephyr database gives an even bigger total: over a billion dollars invested in 24 deals in the first six months of the year (KPMG A. F., 2013).

Long-established giants of the PE world are closing dedicated Africa funds, hiring teams and opening offices across the continent, while home-grown funds and managers are growing bigger, bolder and better. Despite all these increases, it is important to note that PE flows remain at very low levels, relatively speaking: PE investment equals 0.1% of gross domestic product (GDP) in sub-Saharan Africa compared with 0.3% of GDP in India, 0.2% of GDP in China and Brazil or over 2% of GDP for world leader Israel. We expect sustained growth as Africa's economic and financial profile matures. We note that Africa saw an increase in deal flows over the first half of the year 2012, while the two big emerging markets that individual investors' were most excited about over the past few years, China and India, saw deal volumes decline (KPMG, 2013).

Shahin (2012) examined the impact of dividend per share, earning per share, net sales per share, book value per share, net worth, retention ratio, leverage ratio and growth in total assets on market price of share by using the linear regression model. The analysis also showed the sensitiveness of the market towards the dividend policy of the three groups. Growth showed a positive influence only in case of textile industry. Leverage in general had a negative influence on the share prices.

This study has been undertaken to identify the fundamental factors that influence investors' investment preference while investing on Ethiopian insurance share companies. The study was conducted in two parts using primary and secondary data. The primary data used both financial and non-financial factors. The financial factors were profitability, leverage, firm size, inflation, one year lagged of earning per share and dividend payment history while the non-financial part contains the social, cultural and psychological factors by incorporating different question in each category.

In the secondary data, the study deployed a financial panel data consisting of annual time series data over the period from 2003 to 2014 and cross-section data pertaining to eight (8) Ethiopian insurance share companies. The fixed effects model has been employed as a panel data techniques to investigate the objectives. The study has chosen profitability (measured by return on asset), leverage (debt to equity), firm size (total asset), general inflation of Ethiopia and one year lagged value of earning per share as possible determinant factors of investors' investment preference and employed the ordinary least squares method to evaluate the significance and impact of the independent variables on the dependent variable which is the earning per share of the companies

## 1.2. Overview of the insurance Industry

### 1.2.1 The insurance industry in General

International trade and industries pervasively grew up, both in terms of size, type and complexity. That led to the need for protection against the potential risk of loss and the modern way of risk management system and balancing of portfolios, such as having many similar individual potential risks of losses to be pooled into different class of risks. This implies that, human beings, were introduced not only with mechanisms of securities but also with specialization and segregation of uncertainties and risks by type and cause and the way it could be managed (Outeville, 2002).

The desire of human beings for security against uncertainties is as old as humankind, and evolving along with stages of human and socio-economic development. Human beings strive for security against uncertainty, as initially witnessed by helping one self, and then by establishing the family, clan, guilds, and then community and society. The notion (idea) of "one for many and many for one" is the basis for the emergence of insurance concept (Swiss, 2004).

Insurance, as a business, has emerged following the steady growth in commerce and labor specialization. It was in marine commerce that the idea of both insurance and reinsurance started to emerge. Around 1370, a specialized and well-structured way of protecting oneself from risks and uncertainties started through well-framed and regulated company. In the year 1370 in Europe, an insurer covering a maritime shipment from Genoa to Sluys purchased insurance for itself to cover the most dangerous segment of the journey, from Cadiz to Sluys, which is often referred to as "insurance for insurance companies" (Leichtling & Pardes, 2005).

Insurance companies sell protection to their customers, who pay premiums that are subsequently invested to cover future claims or benefits, administrative expenses and profits to shareholders. Regulators generally require insurance companies to hold sufficient assets to back liabilities in every insurance business. The reserves must suffice to pay-out expected claims and benefits, even in the unplanned case that the insurer stops writing new business. Thus, regulators require that insurers do not rely on new premiums to pay for claims and benefits underwritten in the past. As insurers continuously underwrite new business, they generally hold significant and relatively stable amounts of investments on their balance sheet.

From its early inception as predominantly a maritime instrument until the present day, insurance has grown significantly in scope, purpose, and availability. Today the insurance industry contributes to economic growth and national prosperity in various ways. At the macro level, the industry helps strengthen the efficiency and resilience of the economy by facilitating the transfer of risk. At the micro level, it brings benefits in all areas of day - to - day life. Insurance helps individuals minimize the financial impact of unexpected and unwelcome future events, and helps them organize their businesses and their lives with greater certainty. Risk - averse individuals are able to enjoy greater utility from their most important assets via the purchase of insurance products.

Almost every conceivable asset or activity can be insured through familiar product types, such as motor, travel, and home content insurance, and by business through professional and product liability insurance, cover for business interruption, and many other contingencies (Buckham, David, Jason, & Stuart, 2010).

As a vital tool for the management of risk by both individuals and organizations, whether private or public, insurance plays an important role in the economic, social, and political life of all countries. Quantifying the contribution of insurance to economic growth is, however, far from simple. One such attempt was made in 1990 by J. Francois Outreville, who investigated the economic significance of insurance in developing countries. By comparing 45 developed and developing countries, he was able to show that there is a positive but nonlinear relationship between insurance premiums per capita and gross domestic product per capita, demonstrating that the development of insurance as a financial instrument clearly plays an important role in assisting a nation's economic growth (Buckham et al., 2010).

### 1.2.2 The insurance industry in Africa

Africa's insurance and reinsurance markets continue to attract close scrutiny and rising interest from financial market participants around the world. These include the mature markets of the United States and Europe, which have historically had a presence on the continent, as well as newer entrants from emerging BRIC (Brazil, Russia, India and China) countries. In addition, robust regional cross-border activity with Africa-based insurance groups buying other regional insurance companies has created a vibrant landscape. Insurance markets in Africa are comprised of 54 different countries of varying economic, political, geographic and cultural diversity. Taken as a whole, Africa has a combined gross domestic product (GDP) of approximately USD 2 trillion, which is nearly equivalent to that of Canada and greater than Australia, both resource-based economies. A number of African economies are growing by 5% to 10% and more, much faster than the mature markets, with drivers such as energy, construction and mining projects. This has made them attractive to insurance groups in the United States and Europe, where growth has been more limited. According to the World Bank, Africa economically was the world's fastest growing continent in 2013, and GDP is expected to rise by an average of more than 6% annually between 2013 and 2023 (BestCompanyreport, 2014).

According to the Best's Company report (2014), the insurance market in Africa is made up of insurers, reinsurers, brokers, loss adjusters, actuaries and agents. Markets on the continent are diverse and at different stages of development. However, Africa's insurance market is still relatively concentrated. Premiums from South Africa, Morocco, Nigeria, Egypt, Kenya, Algeria and Angola represented 90.1% of total non-life and life premium on the continent in 2012.

South Africa is by far the largest insurance market in this region, with total premium of USD 54.4billion in 2012. An insurance market's maturity can be gauged by examining proxies, including the size of the life sector, the balance in terms of lines of business and the extent to which motor dominates the non-life sector. South Africa stands out as 80.5% of its total insurance premium originates from life risks. The strong demand for life business results in total insurance premiums in South Africa representing 14.1% of GDP – exceeding insurance penetration in European countries.

The demand for insurance in Africa has continued to increase in line with economic growth. The seven largest insurance markets in Africa saw total premium increase by 8% in 2012 to USD 64.3 billion, with Kenya and Algeria experiencing double-digit percentage growth of 24.5% and 16%, respectively. Insurance markets are growing from a low base, although still expanding at a faster rate than more mature markets, which has made them attractive to foreign participants. Morocco was an exception with a 3.3% contraction in total premium as economic performance failed to meet expectations because of a decline in grain production, and reforms that were deferred following the election of the Justice and Development Party.

The growth of the insurance industry in Africa and increased competition from international participants will continue to be important to the health and development of the insurance sector, although companies need to stay focused on the economic and regulatory environment, given the diversity of markets on the continent. A sudden deterioration in the fundamentals that have helped to attract foreign participants and spurred growth of the insurance industry could represent risks for investors. Though recent developments have been promising, and growth on the continent is expected to continue for many years to come, political and economic stability still represent important challenges for the insurance industry in Africa if it is to meet its potential.

### 1.2.3 The insurance industry in Ethiopia

There has hardly ever been any work in insurance business in Ethiopia that researched into the historical and factual aspects of the industry. Hailu's (2007) work explores the historical trajectories, thoroughly examines its emergence and the twisted path it has gone through ever since the inception of insurance industry in early twentieth century in Ethiopia. Having taught and researched in the field for several decades at Addis Ababa University, Hailu is indeed well equipped with the tools of scientific enquiry as well as the theoretical insights to unravel delicate and complex issues surrounding the insurance business in this country.

Schaefer (1992) indicates that the emergence of modern insurance in Ethiopia is traced back to the establishment of the Bank of Abyssinia in 1905.The Bank had been acting as an agent for a foreign insurance companies to underwrite fire and marine policies. The first domestic private insurance company was established in 1951 with a share capital of Eth $1,000,000. In the 1960s domestic private companies started to increase in number. In 1962, according to the survey of the Central Statistical Agency (CSA), there were 34 companies in Ethiopia, of which two were domestic and the rest foreign represented by 18 agents before the enactment of the first insurance proclamation in 1970. In other words, the origin of Ethiopia's insurance industry is linked to expatriates and foreign insurance companies (Hailu, 2007).

Following the overthrow of the imperial regime by the Marxist military government, private insurance companies were nationalized in 1975. A sole public insurance company was established under the name Ethiopian insurance corporation (EIC), which had been a monopoly in the insurance industry for 19 years. According to Hailu (2007), the industry in particular and the economy in general are "characterized by government monopoly, lack of dynamism and innovation, volatile premium growth rates and reliance on only two classes of business, namely motor and marine". This had an adverse effect on the growth of the insurance industry. Following the regime change in 1991, there was a shift to a market economy and a new insurance proclamation "Licensing and Supervision of Insurance", No. 86/1994, was issued in 1994.

With respect to the legal and regulatory issue, the Ethiopian insurance industry seems to lack consistent and comprehensive legal and regulatory frameworks in its history. According to Hailu

(2007), in Ethiopia, there were no insurance laws and supervisory body put in place until the issuance of the commercial code in 1960 and the first insurance proclamation, Proclamation No.281/1970 followed by regulations, Legal Notice No.393/197. They were issued in 1970 and in 1971, respectively while insurance companies had been in business prior to 1960.

The issuance of the proclamation and the regulations led to the formation of the insurance council and an office of insurance controller which were then responsible for regulating and supervising the insurance business in the country. Some of the insurance matters covered in the insurance regulation were: submission of application for license, issuance and renewal of licenses, qualification requirements of insurance auxiliaries and actuaries, submission of annual financial statements to the controller, issuance of shares, and assignment or transfer of shares.

In 1976, the provisional military administration council issued a new monetary and banking proclamation, Proclamation No. 99/1976 replacing the previous ones. In this proclamation the supervision and regulation of the insurance industry along other financial institutions was given to the National Bank of Ethiopia (NBE), the country's central bank. Following the downfall of the military regime in 1991, the transitional government of Ethiopia issued monetary and banking proclamation, (Proclamation No.83/1994, in 1994), revoking the earlier proclamation.

Following this proclamation, transitional government of Ethiopia issued licensing and supervision of insurance business proclamation, Proclamation No. 86/1994. The proclamation, similar to the previous ones (281/1970 and 68/1975), contains provisions pertaining to: conditions to be fulfilled to establish an insurance company, type and issuance of shares, licensing of insurers and cancellation of licenses, statutory deposit and legal reserve requirements, reserve accounts (provisions), actuarial investigation and report, margin of solvency, insurance auxiliaries; restriction on loans and advances, the manner in which reinsurance business may be transacted, and separation of accounts/funds-general and long-term insurance.

According to Kassahun (2013-2014), Ethiopia's insurance industry is relatively undeveloped which is exemplified by the sectors low penetration levels .There are an estimated of 0.3 million formal insurance clients in Ethiopia. By the end of December 2011, indeed the Ethiopian insurance

industry was composed of 15 insurance companies (14 private and 1 public), 221 branches, 43 insurance brokers, 915 sales agents, 1 insurance association. Eight of the existing private insurers were established during the first three years of liberalization (September 1994-January 1997). In the last ten years only 7 private insurers joined the industry with a total of branch networks of 47 (Central Statistics Agency, 2011)

The Ethiopian insurance industry does not have a long history of development despite the country's long history of civilization. The emergence of modern insurance in Ethiopia is traced back to the establishment of the Bank of Abyssinia in 1905. The Bank began to transact fire and marine insurance as an agent of a foreign insurance company. Imperial insurance company was the first domestic private insurance company that was established in 1951. In the 1960s domestic private companies started to increase in number (Schaefer C. , 1992). In 1962, according to the survey of the Central Statistical Agency (CSA), there were 34 insurance companies in Ethiopia, of which two were domestic and the rest were foreign represented by agents (Muhammed, 2012).

In other words, the origin of Ethiopia's insurance industry is linked to expatriates and foreign insurance companies (Hailu, 2009). Following the overthrow of the imperial regime by the Marxist military government, private insurance companies were nationalized in 1975. A sole public insurance company was established under the name Ethiopian insurance corporation (EIC), which had a monopoly in the insurance industry for 19 years. Following the regime change in 1991, there was a shift to a market economy and a new insurance proclamation "Licensing and Supervision of Insurance", No. 86/1994, was issued in 1994. The law allowed private sector participation in the insurance business (Mezgebe, 2010).

Then the total number of insurance companies, branches and their capital increased significantly. Generally insurance and banking industries in Ethiopia are not open for foreign individual investors. Ethiopian insurance companies are under the umbrella and supervision of the National Bank of Ethiopia (NBE). Accordingly, the licensing and supervision is based on directive No. SIB/1/1994. There are various directives and circulars regarding licensing insurance actuary, licensing insurance brokers, manner of reporting information, licensing opening branches and others. These directives are issued by the national bank of Ethiopia pursuant to the authority vested in it by article 41 of the monetary and banking proclamation No. 83/1994 and article 42 of the licensing and supervision of insurance business proclamation No. 86/1994. A company applying

to undertake insurance business shall pay investigation fee of Birr1, 750 (one thousand seven hundred fifty only), that is to be paid at the time of lodging an application.

Once the company gets approval to open an initial public offering (IPO) will be announced, the first sale of stock by a private company to the public. IPOs are often issued by smaller, younger companies seeking the capital to expand, but can also be done by large privately owned companies looking to become publicly traded. In an IPO, the issuer obtains the assistance of an underwriting firm, which helps it determine what type of security to issue (common or preferred), the best offering price and the time to bring it to market.

The stock market is all about dynamics and that is why individual investors and fund managers have been time and again confronted with the problem of accurately predicting the stock prices so as to earn decent returns. Investment in shares offers the benefit of liquidity as well as the opportunity to beat the market and earn high returns. But the task of predicting share prices is far from simple. Share price movement is not independent in nature and both internal as well as external factors have been established to exercise influence over stock price movements. The pioneering work on determinants of share prices by Collins (1957) for United State banks identified dividend, net profit, operating earnings and book value as the factors influencing share prices. Following Collins (1957), there have been various attempts to identify the determinants of share prices for different markets (Nidhi, 2013).

Investment is the flow of capital which is used for productive purposes. There is a great emphasis on investment for being the primary instrument of economic growth and development for a country. Investment means an increase in capital spending and it helps in creating a robust economy. Investment is a component of aggregate demand. There are a large number of investment instruments available today. Some of them are marketable and liquid while others are non-marketable and illiquid. There are instruments which are highly risky while others are almost riskless. The individual investors' choose avenues, depending upon their specific need, risk appetite, and return expected.

### 1.3. Statement of the Problem

The performance of the stock market in any country is a strong indicator of general economic performance and is an integral part of the economy of any country. With the introduction of free

and open economic policies and advanced technologies, individual investors' are finding easy access to stock markets around the world. The fact that stock market indices have become an indication of the health of the economy of a country indicates the importance of stock markets. This increasing importance of the stock market has motivated the formulation of many theories to describe the working of the stock markets (Gupta et al., 2008).

Investment avenues can broadly be categorized into two spheres, namely, economic investment and financial investment. Purchasing of a physical asset such as a building or equipment is an economic investment. Economic investments contribute to the net additions to the capital stock of a society. Financial investments, on the other hand, refer to investment in financial instruments like shares, debentures, insurance policies, mutual fund units etc. Financial investments help in creating the capital stock of the country. In the long term, investment is important for improving productivity and increasing the competitiveness of an economy (Shafi, 2014).

Also known as equities, a share represents a share of ownership in a company, and these shares are listed or not listed on a stock exchange. When we find a share to buy, we are buying a small stake in a company. We become a joint-owner of the company along with all the other shareholders, and we are invited to have a say in a number of the decisions the company makes. When looking to buy shares, the aim is for the shares to grow in value over time; and also to benefit from a share in the profits of the company in the form of regular dividend payments. Shares give individual investors the opportunity for a steady income and capital growth. Even if we understand how shares work we may still be asking our self 'how do we buy shares?' We can find shares to buy directly from a stockbroker or trader, or we can buy shares through an investment fund. Investment in equity share is one of the most liquid forms of investment.

Market price of the share is one of the most important factor which affects investment decision of individual investors. It is also suggested from the theories that market price of the share depends upon many factors, such as earning per share, dividend per share, payout ratio, size of the firm and dividend yield, management, inflation, diversification, leverage etc.,. For predicting share prices there are different approaches; fundamental approach predicts share price on the basis of financial, environmental and managerial factors, whereas, technical approach takes the help of past trends in

predicting future share price. Whatever the reason might be, an individual investors undertakes thorough financial evaluation of the available options before deciding to invest in stocks of a particular company.

Understanding of the effect of various fundamental variables on share price is very much helpful to various parties such as individual investors, management, government, etc., as it will help them in taking various important decisions. In developed and developing countries many studies have been undertaken to study the determinants of individual investors' preference to invest in different investment opportunities including stock market by measuring the investors' preference as a proxy of share price. As per the study by Uddin (2013), he has put a great stride to identify what determines the share prices of stock market focusing exclusively on financial sector of Bangladesh. Data have been collected from companies like bank, insurance, leasing companies associated with financial sector ranging from 2005 to 2011 from Dhaka Stock Exchange.

In the previous researches shares price is used as proxy to measure investors' preference and also emphasized that there is a direct relationship between shares price and earning per share. In this research earning per share is used as a proxy to measure the investors' preference. One of the problems not to use the share price as a measure is due to the non-availability of the secondary market to value share price of each companies as a result of the government regulated financial industry in the country.

The financial industry in Ethiopia is a government regulated industry which is attracting individual investors as investors have confidence that the business will operate for longer period of time as a result of close supervision by NBE. As per the analysis made by the researcher based t on the data obtained from NBE, the number of private insurance companies has increased in high rate from 8, before 10 year, to 16 which holds around 72 % of the market share of the insurance industry. From the 8 companies opened with in ten years, five of them were opened in the last five years that shows the attractiveness of the industry. This indicates that there is an opportunity of investing in insurance company's share and as a result individual investors want to know some prior information before deciding in which financial institution they should invest. But previous studies didn't touch about the determinant factors that individual investors want to know and incorporate

as part of their decision making process before investing on shares of investment opportunities in Ethiopia .

This paper tried to attempts a study of the determinant factors, both financial and non-financial, of individual investors' preference to invest specifically on the shares of insurance companies operating in Ethiopia. Knowledge of such factors and their possible impact is highly appreciable as it would help investors make wise investment decisions and enable firms to enhance their market value. Consideration of such factors by investors is also warranted while investing their funds since this would aid them in making wise investment decisions and invest in stocks that yield good returns.

## 1.4. Objective of the study

### 1.4.1. General Objective

The main objective of this paper is to examine the influencing factors to individual investors while investing on shares of Ethiopian insurance companies; those are factors in which individual investors want to know before purchasing shares of an insurance company after IPO.

The operational definition of individual investors runs as "the people, who earn or receive money from different sources and invest in different investment avenues such as shares, mutual funds, deposits, etc. in order to save for future requirements (Shafi, 2014).

### 1.4.2. Specific Objectives

In furtherance of the general objective this study pursue the following specific objectives:

1. To determine the influence of culture on the behavior of individual investors.
2. To determine the influence of socially obtained information on the behavior of individual investors.
3. To determine the influence of psychological perception on the behavior of individual investors
4. To find out the effect of some financial factors on individual investors investment decision to purchase the shares of Ethiopian insurance companies.

In order to achieve the above stated objectives, the following research hypotheses (HP) was developed.

**Independent Non-Financial factors and their hypothesis to be tested using primary data:**

- **Social Factors**

**HP 1:** Socially obtained information have influence on the individual investors' preference to invest on the shares of Ethiopian insurance companies.

- **Cultural Factors**

**HP 2**: Cultural trends where the individual investor was living have influence on their preference to invest on the shares of Ethiopian insurance companies.

- **Psychological perception**

**HP 3:** Psychological perception of individual investors have influence on their preference to invest on the shares of Ethiopian insurance companies.

**Independent Financial Factors and their hypothesis to be tested using primary and secondary data**

- **Profitability**:

**HP 4:** Profitability has a positive impact on individual investors' preference to invest on insurance companies operating in Ethiopia. Profitability is a financial benefit that is realized when the amount of revenue gained from a business activity exceeds the expenses, costs and taxes needed to sustain the activity. Any profit that is gained goes to the business's owners, who may or may not decide to spend it on the business. Profitability is measured by the return on asset of the company.

- **Firm size:**

**HP 5:** Firm size has a positive impact on individual investors' preference to invest on insurance companies in Ethiopia.

The issue of firm size is not of minor importance. An interesting aspect of economic growth is that much of it takes place through the growth in the size of existing organizations. For instance, in the sample of 43 countries they study, (Rajan & Zingales, 1998a) and that two thirds of the growth in industries over the 1980s comes from the growth in the size of existing establishments, and only the remaining one-third from the creation of new ones. It is thus useful to study the potential determinants of the size of economic organizations, and ask if there are any constraints to size and, hence, any potential constraints to growth.

It is the total market value of the securities in a mutual fund's portfolio. Total assets or total net assets are also used to describe a fund's size.

- **Inflation**

**HP 6:-** Inflation has a negative impact on individual investors' preference to invest on insurance companies in Ethiopia

The main problem with stocks and inflation is that a company's returns tend to be overstated. In times of high inflation, a company may look like it's prospering, when really inflation is the reason behind the growth. When analyzing financial statements, it's also important to remember that inflation can wreak havoc on earnings depending on what technique the company is using to value inventory.

- **Leverage**

**HP 7:** Leverage has a negative impact on individual investors' preference to invest on insurance companies in Ethiopia.

Kumar and Hundal (1986) examined the impact of dividend per share, earning per share, net sales per share, book value per share, earning per share, net worth, retention ratio, leverage ratio and growth in total assets on market price of share by using the linear regression model. The analysis also showed the sensitiveness of the market towards the dividend policy of the three groups. Growth showed a positive influence only in case of textile industry. Leverage in general had a negative influence on the share prices. This variable is measure as a debt to equity ratio in this research.

- **Lagged earning per share:**

**HP 8:** Lagged earning per share has a positive impact on individual investors' preference to invest on insurance companies in Ethiopia.

Earnings per share, also called net income per share, is a market prospect ratio that measures the amount of net income earned per share of stock outstanding. In other words, this is the amount of money each share of stock would receive if all of the profits were distributed to the outstanding shares at the end of the year.

Al-Deehani (2005) examined the determinants of share price for companies listed on the Kuwait stock exchange. The empirical findings showed that variables previous earnings per share, cash dividends per share, previous cash dividends per share, return on equity, and price to book value ratio, previous cash flow per share and cash flow per share are all highly correlated with the share price.

## 1.5. Research Methodology

### 1.5.1. Research Design

The objectives of this research is to assess the determinant factors that influences individual investors to buy shares of Ethiopian insurance share companies. To analyze the data in this study, the researcher adopted descriptive research method of data analysis. Descriptive research can be either quantitative or qualitative. The research is conducted using two types of data which is analyzed in two parts.

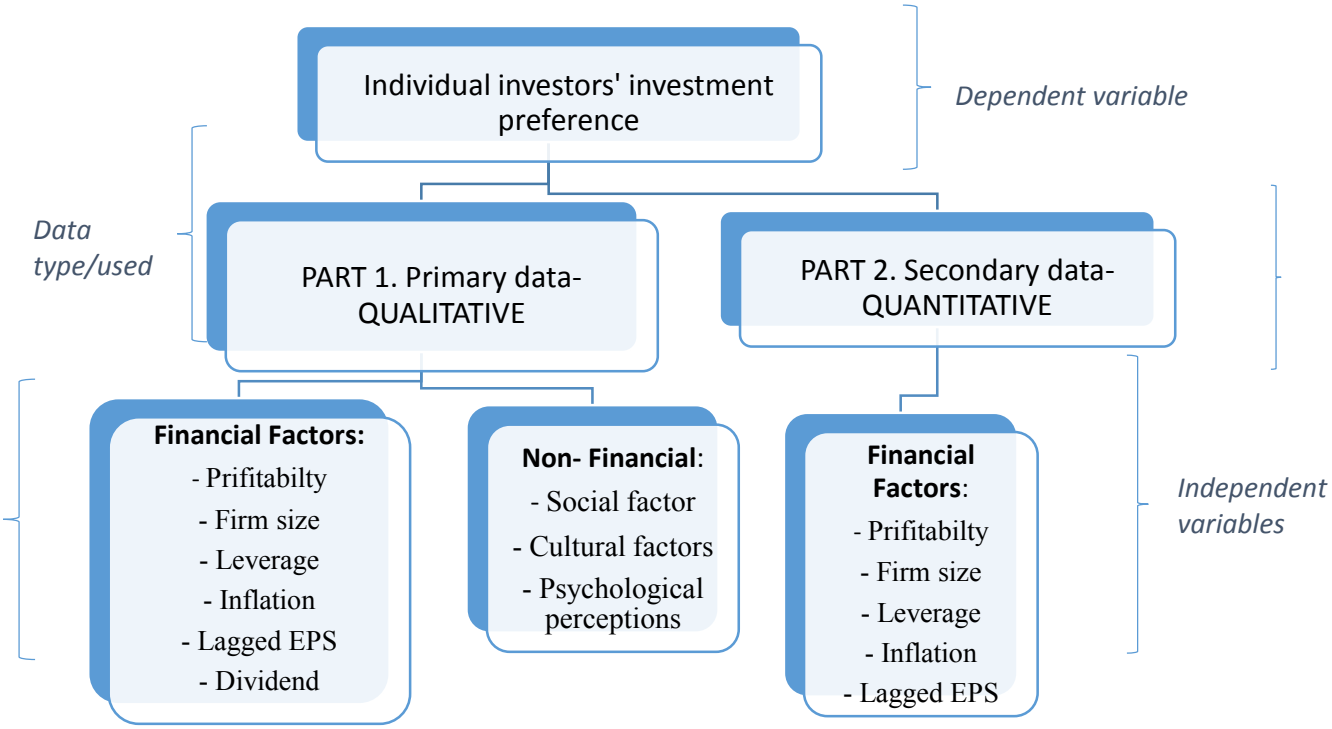
In part one the researcher used a qualitative primary data which are both financial and non-financial. This data is used to assess the degree of influence of financial and non- financial factors on the individual investors' investment preference or decision to invest on the shares of Ethiopian insurance share companies. The model used for this part of the analysis is the one used for study by Aregbeyen & Ogochukwu (2012) about factors influencing investors decisions in shares of quoted companies in Nigeria by catagorizing in to four major subgroups. These are economic, social, cultural and psychological factors. In this study the financial factors are profitability, firm size, leverage, inflation, lagged earning per shares & dividend payment history and the non-financial factors are categorized in to social, cultural and psychological. Dividend was considered as part of the financial indicator but not supported by secondary data due to the none-availability of this information both at NBE and with the insurance companies for the study period and therefore assessed only by the primary data.

Part two is a quantitative secondary data which is only financial. This data is used to determine the relationship between the dependent variable which is the investors' investment preference and the independent variables that determine the individual investors' investment preference. The model used for this part of the analysis is the one used for study by Srinivasan P. (2012) about ''determinants of equity share prices in India: a panel data approach''. The researcher used a linear multiple regression model with dependent variable of stock price and independent variables of dividend per share, earnings per share, price-earnings ratio, firm size (total net sales), book value per share and leverage.

In this research, the dependent variable is measured by earning per share while the independent variables are containing profitability, firm size, leverage, inflation and one year lagged earning per

share. The main purpose of the secondary financial data is to support the findings of the primary data.

The overall relationship between the dependent variable and the independent variables for both parts of the analysis is shown below:




### 1.5.2. Source of Data

To test the hypotheses and achieve the broad objective, the study used both primary and secondary data. The primary data was gathered through questionnaire from individual investors who have shares on Ethiopian insurance share companies. The purpose of the primary data is to assess the influence of both financial and non-financial factors on the investment decision preference of individual investors.

The secondary data for this study was gathered from National bank of Ethiopia which is audited and published annual financial reports by listed and registered eight (8) insurance companies. The main purpose of the secondary data is to supplement the findings of the primary data for the financial factors only. The data for the listed companies covered from 2003 to 2014(twelve years)

in order to assess the determinant financial factors of individual investors' investment preference to buy the shares of Ethiopian insurance share companies. In addition to this, other sources like annual report, magazines, brochures, journals, newspapers, websites, etc. was used whenever necessary. The sources financial statement of the secondary data for this study were balance sheets and income statements of those companies which were in operation for the period of twelve (12) years, from 2003 to 2014, which are mainly extracted from National Bank of Ethiopia, which can provide comprehensive database for all financial institutions as a supervisory government and independent organization.

After data was obtained from primary and secondary sources, the primary data that was obtained from the individual shareholders was prepared in readiness for analysis by editing, coding, categorizing and keyed into Statistical Package for the Social Science (SPSS) computer software for further analysis. The secondary data was prepared in readiness for analysis by editing, coding, categorizing and keyed into Eview computer software for further analysis.

For this study the target population consists of all private insurance companies registered by national banks of Ethiopia and under operation in the country at least for the last twelve years

### 1.6. Scope of the study

The scope of the study is restricted to the assessment of the financial and non-financial factors affecting the individual investors' investment preference to purchase the share of insurance share companies registered by the National Banks of Ethiopia and that were at least in operation from 2003 to 2014, for twelve years.

### 1.7. Significance of the study

Various researchers have found important financial and non-financial factors that determine the investment preference of individual investors' investment decisions for different markets, viz., dividend, retained earnings, firm size, earning per share, dividend yield, leverage, payout ratio, and book value per share. Understanding the impact of various fundamental variables that influence their investment decision is very much helpful to investors as well as insurance companies as it will help them in taking profitable investment decisions.

This study adds value to various parties specifically and mutually as discussed below.

1. The first benefiting party is the individual investors. They will use the output of this research to refer those influential factors that are helpful to know before investing on the shares of Ethiopian insurance share companies
2. The other benefiting party of this study will be the management arms of the various insurance companies that will get new insights on the factors that affect the individual investors' preference about their organizations. They will be able to structure and implement strategies aimed at improving those significant factors in an informed manner and avoid obvious pitfalls thus enhancing the maximization of shareholders wealth and the image of the insurance through better market share prices.
3. To the scholars this study will provide areas for further researches which can be used to add value in the area of specifically to the insurance industry and investment overall.

### 1.8. Limitation of the study

In this study, the sample insurance was selected purposively based on the age and availability of data. This is because there are only eight insurances that have been operating in Ethiopia for the study period, others are established recently.

The other limitation of this research is that the researcher has tried to measure the performance of insurances by using some financial and non-financial factors, but there are still other financial and non-financial factors that affects the investor's preference. Therefore due to the broad concept of investment, these may limit the findings of this study only to the considered financial and non-financial performance indicators. As per the study conducted by Merilkas & Prasad (2003) to analyze factors influencing Greek investor behavior on the Athens stock exchange, individuals' base their stock purchase decisions on economic criteria combined with other diverse variables.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1. Introduction

One of the major avenues of investment that has the potential of yielding considerable returns to investors is the investment in equity shares. It is also a source of finance for the capital requirements of firms. Returns from such equity investments are however subject to vary, depending upon various factors such as the performance of the particular stock, the market conditions, etc. The factors that influence share prices could either be internal factors, such as earnings, dividend, book value, etc. or external factors such as interest rate, government regulations, foreign exchange rate, etc. Several such factors have been identified by previous empirical research. The pioneering work on share price determinants by Collins (1957) for United States identified dividend, net profit, operating earnings and book value as the factors influencing share prices. Following Collins (1957), there have been various attempts to identify the determinants of share prices for different markets.

The Review of literature in the concerned research area is of great importance in carrying out further research work. The research works reviewed here have been sourced from various books, journals, articles, internet sites, etc. and categorized as investment over all, behavioral financing, insurance industry in general, insurance in Africa, insurance in Ethiopia, Stock market in general and theoretical and empirical literature on determinant factors.

## 2.2. Investment overall

Investment is the flow of capital which is used for productive purposes. There is a great emphasis on investment for being the primary instrument of economic growth and development for a country. Investment means an increase in capital spending and it helps in creating a robust economy. Investment is a component of aggregate demand. There are a large number of investment instruments available today. Some of them are marketable and liquid while non- marketable and illiquid. There are instruments which are highly risky while others are almost riskless. The investors choose avenues, depending upon their specific need, risk appetite, and return expected. Investment avenues can broadly be categorized into two spheres, namely, economic investment

and financial investment. Purchasing of a physical asset such as a building or equipment is an economic investment (Shafi, 2014).

Economic investments contribute to the net additions to the capital stock of a society. Financial investments, on the other hand, refer to investment in financial instruments like shares, debentures, insurance policies, mutual fund units etc. Financial investments help in creating the capital stock of the country. In the long term, investment is important for improving productivity and increasing the competitiveness of an economy. Without investment, an economy could enjoy high levels of consumption, but this creates an unbalanced economy. The states having more commitments to investment are more progressive. As investments have a 'multiplier' effect, they generate income and employment and create demand and consumption (Shafi, 2014).

Investment in equity shares is one of the major avenues of investment that yields considerable returns to investors. It is also a source of finance for the capital requirements of firms. Returns from such equity investments are subject to vary owing to the movement of share prices, which depend on various factors which could be internal or firm specific such as earnings per share, dividends and book value or external factors such as interest rate, GDP, inflation, government regulations and foreign exchange rate. Share price is used as a benchmark to gauge performance of a firm and its variations as an indicator of the economic health or otherwise of a firm hence the need to be conversant with the factors that could adversely affect share prices (Gatua, 2013).

Having knowledge of such factors and their possible impact on share prices is highly appreciable on the part of both firms and investors. Since share prices convey information to the outside world about the current and future performance of firms, it is imperative for the managers of the firms to pay due attention to the factors that influence share prices as this could help them enhance firm value in the market. Consideration of such factors by investors is also warranted while investing their funds since this would aid them in making wise investment decisions and invest in stocks that yield good returns. Most investors are attracted to active counters at the stock exchange as this denotes the changing perceptions and dealings on a firm's securities which gives share price greater importance as a measure of stock performance (Gatua, 2013).

Investors are constantly concerned with the market value of a share of stock. Perceptions that a stock is rising prompts the purchase of stock while perceptions of a fall in price prompts selling. Three major market value factors such as earning per share, dividend yield and net asset value per share are often used to determine whether buying or selling a stock is warranted. In all three, the market price per share is compared with relevant indicators of company profitability (Uddin M. B., 2009).

Investment in equity share is one of the most liquid forms of investment. Market price of the share is one of the most important factor which affects investment decision of investors. It is also suggested from the theories that market price of the share depends upon many factors, such as earning per share, dividend per share, payout ratio, size of the firm and dividend yield, management, diversification, etc. (Sharma, 2011).

One of the major avenues of investment that has the potential of yielding considerable returns to investors is the investment in equity shares. It is also a source of finance for the capital requirements of firms. Returns from such equity investments are however subject to vary, depending upon various factors such as the performance of the particular stock, the market conditions, etc. Knowledge of such factors and their possible impact on share prices is highly appreciable as it would help investors make wise investment decisions and enable firms to enhance their market value. The factors that influence share prices could either be internal factors, such as earnings, dividend, book value, etc. or external factors such as interest rate, government regulations, foreign exchange rate, etc. Several such factors have been identified by previous empirical research. The pioneering work on share price determinants by Collins (1957) for United States identified dividend, net profit, operating earnings and book value as the factors influencing share prices.

Generally, investors are not in a situation to directly assess the performance of companies in which they intend to invest. They usually depend on financial statements prepared by the management of such organization. The primary purpose of financial statements is to provide information concerning the financial situation of the company, its operational results, any changes of control in the company and cash flow (Nirmala & Florence, 2011).

The impact of financial statement information on capital markets indicators referred to as the value relevance studies and it is part of the market-based accounting stream. Information is considered ‘‘value relevant’’ if stock price movements are associated with the release of such information (Utami & Noraya, 2010).

### 2.3. The Stock Market in General

As demonstrated by Nwude (2004) the capital market is a market for securities, where business enterprises and governments can raise long-term funds. The capital market, which includes the stock market and the bond market, plays a vital role in economic prosperity that fosters capital formation and sustains economic growth. Stock markets are more than a place to trade securities; they operate as a facilitator between savers and users of capital by means of pooling of funds, sharing risk, and transferring wealth.

The stock market has become an essential market playing a vital role in economic prosperity by fostering capital formation and sustaining economic growth in most economies across the world. Stock markets are more than a place to trade securities; they operate as facilitator between savers and users of capital by means of pooling of funds, sharing risk, and transferring wealth. Stock markets are essential for economic growth as they ensure the flow of resources to the most productive investment opportunities (Udegbunam & Eriki, 2001).

Guglielmo et al (2004) argue that the primary benefit of a stock market is that it constitutes a liquid trading and price determining mechanism for a diverse range of financial instruments. This allows risk spreading by capital raisers and investors and matching of the maturity preferences of capital raisers (generally long-term) and investors (short term).This in turn stimulates investment and lowers the cost of capital, contributing to the economic growth of a nation in the long term.

The stock market plays a significant role in the economy of a country and an important role in the allocation of resources, both directly as a source of funds and as a determinant of firms' value and its borrowing capacity (Tease, 1993). It provides road for investment and capital formation and can act as an indicator or predictor of overall economic condition. It works as an intermediary between savers and companies seeking additional financing for business expansion which leads to industrialization and creation of employment opportunities leading to higher standard of living of the society. It provides a platform to individuals, governments, firms and organizations to trade

and invest in savings through the purchase of shares. A stock market is very crucial to sustainable economic growth as it can assure the flow of resources to the most productive investment opportunities. So, as an important institution of a country, stock market is of a great concern to investors, stakeholders and the government. The market price of a share is a key factor that influences investment decision of stock market investors.

Share price is one of the most important indicators available to the investors for their decision to invest in or not a particular share (Gill et al, 2012). The stock price in the market is not static rather it changes every day. The most obvious factors that influence are demand and supply factors. The price of any commodity is affected by both micro-economic and macro-economic factors.

According to Gompers et al. (2003), in the securities market, whether the primary or the secondary, stock price can be significantly influenced by a number of micro environmental factors including dividend per share, book value (asset value) of the firm, earnings per share, price earnings ratio and dividend cover etc. Critics argue that stock market liquidity may negatively influence corporate governance because very liquid stock market may encourage investor myopia. Since investors can easily sell their shares, more liquid stock markets may weaken investors' commitment and incentive to exert corporate control (Bhide, 1994). These problems are further magnified in emerging market countries with their weaker regulatory institutions and greater macroeconomic volatility. These serious limitations of the stock market have had led many analysts to question the importance of the system in promoting economic growth in emerging markets.

In principle, stock markets are expected to accelerate economic growth by providing a boost to domestic savings and increasing the quantity and the quality of investment. In particular, stock markets can encourage economic growth by providing an avenue for growing companies to raise capital at lower cost. In addition, companies in countries with developed stock markets are less dependent on bank financing, which can reduce the risk of a credit crunch. The stock market is also expected to perform an 'act of magic' by permitting long term investment to be financed by funds provided by individuals, many of whom wish to make them available for only a very limited period, or who wish to be able to withdraw them at will (Baumol, 1965).

Generally the determinants of stock prices are often a matter of debate. Determining share prices is a complex and conflicting task. According to economic theory, the price of any asset is usually determined by the market forces. However, a number of empirical studies have been conducted on the determinants of stock prices. Some of these studies looked at the relationships between stock prices and the factors that could impact on it. The link between fundamental factors (e.g. firm earnings, dividends and book-value per share) and stock price changes has always remained as the focus area of interest for market analysts, fund managers, and investors.

According to Fama (1970) a stock market is said to be efficient (pricing) if current securities' prices reflect all available information. In an efficient market, stock prices would be analyzed by technical analysis or fundamental analysis. Technical analysis evaluates the stock price movement and predicts the future stock price based on historical data of stock price. Fundamental Analysis evaluates the intrinsic value of the company and compares it to the stock price.

According to Jones & Charles (2004) the comparison of these analyses will give insight to the investor whether the stock price is undervalued or overvalued and it will assist the investor in making the decision. Stock prices would be determined primarily by fundamental factors. Various researchers have found important fundamental factors that determine the share prices for different markets, viz., dividend, retained earnings, size, and earnings per share, dividend yield, leverage, payout ratio, and book value per share. A stock price in an efficient (price) market provides investors with a good measure of any firm's performance and its value.
Srinivasan (2012) noticed that, understanding the impact of various fundamental variables on stock price is very much helpful to investors as it will help them in taking profitable investment decisions.

The stock market is all about dynamics and that is why investors and fund managers have been time and again confronted with the problem of accurately predicting the stock prices so as to earn decent returns. Investment in shares offers the benefit of liquidity as well as the opportunity to beat the market and earn high returns. But the task of predicting share prices is far from simple (Malhotra, 2013).

The theoretical relationship between stock market prices and economic variables dates back to Ross (1967), whose Arbitrage Pricing Theory (APT) relates stock market returns to economic variables which are sources of income volatility. The impact of these economic variables on stock market returns is dependent on underlying model assumptions. The APT model was developed as an alternative to the Capital Asset Pricing Model (CAPM) developed by Sharpe ( 1964) which had unrealistic assumptions and empirical shortcomings as it considers only the linear relationship between two independent variables (risk-free return and volatility of the risk-free return to market return) and the asset price as a dependent variable. The APT model was considered advantageous as it employed a multi-variable model that was expected to have more explanatory power because it allowed for more than one factor (Eita, 2011).

Corwin (2003) identifies uncertainty and asymmetric information as a strong influence on the firm's equity pricing and as a matter of fact lead to underpriced instrument.

In the light of the preceding literature review, many factors both micro and macro-economics, have impact on equity pricing in the stock market, the impact differs from firm to firm, industry to industry, economy to economy and from time to time, but one comforting conclusion is that most of the factors appear to have the same behavior regardless of time, industry or firm constraints. For instance, increased inflation and interest rates, declining dividends, earnings, and poor management leave negative impact on equity pricing and vice-versa.

## 2.4 Theoretical literature review

### 2.4.1 Behavioral finance

It is a relatively new field that seeks to combine behavioral and cognitive psychological theory with conventional economics and finance to provide explanations for why people make irrational financial decisions. Cognitive psychology and the limits to arbitrage are two building blocks of behavioral finance. Cognitive psychology refers to how people think. Limits to arbitrage refer to predicting in what circumstances arbitrage forces will be effective, and when they won't be. It is a field of finance that proposes psychology-based theories to explain stock market irregularities. Within behavioral finance, it is assumed that the information structure and the characteristics of

market participants systematically influence individuals' investment decisions as well as market outcomes (Shafi, 2014).

Economists, sociologists and psychologists have all attempted to explain investor behavior in various ways. Economists' enquiries into investor behavior have focused largely on the "rationality" or "irrationality" of investor decision-making processes. Sociologists explain investor behavior by focusing on investors social environments. Psychologists explain investor behavior by focusing on individual characteristics. The operational definition of individual investors runs as the people, who earn or receive money from different sources and invest in different investment avenues such as shares, mutual funds, deposits, etc. in order to save for future requirements (Shafi, 2014).

Individuals' base their stock purchase decisions on economic criteria combined with other diverse variables. They do not rely on a single integrated approach, but rather on many categories of factors. There is a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the influencing factors for the average equity investor, and the individual behavior of active investors is influenced by the overall prevailing trends (Merilkas & Prasad, 2003).

Somil (2007) observed that the proponent of the theory of rational investor assume that an individual makes a decision on the basis of the principles of maximization, self-interest and consistent choice. According to him, rationality also assumes that an investor has perfect information of his surroundings and makes the decisions with the sole objective of profit maximization. The reasoning derivable from this principle of rationality is that the capital market must be efficient. Capital market efficiency implies that all information regarding the market is fully and instantaneously reflected in security prices and available to all investors. But most capital markets operate under inefficient conditions, making rational decisions impossible.

Statman (1988) observed that people trade for both cognitive and emotional reasons. They trade because they think they have information, when in reality they make nothing but noise and trade only because trading brings them joy and pride. Trading brings pride when decisions made are profitable, but it brings regrets when they are not. Investors try to avoid the pain of regret by

avoiding realization of losses, employing investment advisors as scapegoats and avoiding stocks of companies with low reputations.

According to Shafi (2014) there are numerous determinants that influence the individual investor's behavior in stock market. Some factors influence majorly while other have slight role in influencing the behavior of an individual investor. The factors can be grouped into demographic, economic, social, and psychological in nature. The most common determinants that have a significant impact on the investors' behavior are herding, over-reaction, cognitive bias, irrational thinking, confidence (over or under), gender, age, income, education, risk factor, dividends, influence of people's opinion (friends or family), past performance of the company, accounting information, ownership structure, bonus payments, expected corporate earnings and get rich quick.

When we examined relevant literature, factors influencing individual investors' attitude were classified into two groups, namely social and economic factors, in general. But recent literature put emphasis on social factors in general and behavioral factors (psychological biases and personality traits) in particular that affect investors' decisions, as the fluctuations in financial markets could not be explained with the principal doctrines of finance literature. Psychological biases and personality traits affecting investment behavior are over significance, risk tolerance, self-monitoring and social influence (Kourtidis et al., 2011).

### 2.4.2 Theories on investors preference

Miller and Modigliani (1963) described the clientele effect by stating that each firm has its own body of stockholders, who find its dividend policy optimum. This statement is the basis of what is called the clientele effect. The idea is that investors have different financial needs and investment objectives. For example, assuming that investors have a portfolio of investments, these investments are attuned to serve the investors‟ goal such as: high growth, capital preservation, income generation, and other types of strategies. These goals vary in terms of investor's age, family size, education expenses, career, employment package, and other characteristics.

Based on this argument, investors perceive and categorize stocks depending on their financial and operating characteristics. This perception creates a clientele base for each category of stocks. Therefore, changing the characteristics of firms (e.g. product line, investment and dividend policy,

etc) could have an impact on the clientele. Depending on the magnitude of the change, investors could exit the company by selling its stock and buying another one that meets their goal

Insurance companies generally recognize the importance of separating the responsibility for managing their insurance businesses, from that of managing the investments backing their reserves and capital. Due to the scale of investments on an insurance company's balance sheet and the impact of investment results on its profitability, the management of these investments is a key function. Insurance investment risk is different from that which a typical fund manager would describe as investment risk. A typical fund manager invests on behalf of its clients and is usually focused on maximizing the investment returns relative to a prescribed market benchmark. Investment risk for fund managers is both absolute and relative.

The absolute risk is the chance the market value of the underlying fund will rise or fall in a particular time period. The relative risk is the chance the fund manager may out- or underperform the benchmark in a particular time period. However, both measures are focused on the asset side of the balance sheet only – little consideration is given to the client's liabilities. It is therefore left to the client to select the investments that meet the needs of the liabilities (ZurichInsuranceGroupLtd, 2014).

When it comes to investing, there is no shortage of theories on what makes the markets tick or what a particular market move means. The below points discus some of the common (and uncommon) financial theories.

#### 2.4.2.1 Efficient Market Hypothesis Theory

Very few people are neutral on efficient market hypothesis (EMH). We either believe in it or adhere to passive, broad market investing strategies, or we detest it and focus on picking stocks based on growth potential, undervalued assets and so on. The EMH states that the market price for shares incorporates all the known information about that stock. This means that the stock is accurately valued until a future event changes that valuation. Because the future is uncertain, an adherent to EMH is far better off owning a wide swath of stocks and profiting from the general rise of the market.

Revolutions often offspring counterrevolutions and the efficient market hypothesis in finance is no exception. The intellectual dominance of the efficient-market revolution has more been

challenged by economists who stress psychological and behavioral elements of stock-price determination and by econometricians who argue that stock returns are, to a considerable extent, predictable (Malkiel, 2003) .

The Efficient Market Hypothesis posits that the most direct influence on a stock's price is a change in the fundamentals of the business. Like, if revenues and profits are continuously increasing, one can expect the share price to rise as investors bid to buy into the increasing fortunes of the company. On the other hand, if the profit is flat or declining with no change in sight, investors begin to abandon the stock and the price will fall. The theory however argues that changes in the underlying business have a direct impact on the share price.

Smart investors spot a subtle change before they become price-movers and take the appropriate action. Another factor which the theory identified is what is referred to as sector changes; the theory maintains that changes in the stock's sector can have positive or negative effects on its price. Some sectors or industries are cyclical in nature and that should be expected to affect the stock price (Mukherjee & Naka, 1995)

If market is informational efficient this message will be reflected in share price of that entity. It means positive unexpected earnings lead to positive abnormal returns, while negative unexpected ones cause negative returns (Gajewski & Quere, 2001).

#### 2.4.2.2 Greater Fool Theory

The greater fool theory proposes that we can profit from investing as long as there is a greater fool than ourselves to buy the investment at a higher price. This means that we could make money from an overpriced stock as long as someone else is willing to pay more to buy it from us. Eventually we run out of fools as the market for any investment overheats. Investing according to the greater fool theory means ignoring valuations, earning reports and all the other data. Ignoring data is as risky as paying too much attention to it; so people crediting to the greater fool theory could be left holding the short end of the stick after a market correction (Oberholzer, 2010).

Except for the fools and the greater fools, investors search for high quality (high intrinsic value that will realize high future cash flows) shares, that they believe are undervalued by the market, to pick it up as a bargain, wait until the market becomes aware of its real value, which will push it upwards. Market volatility will always exist and therefore we may not be concerned about it. We

are much more concerned about the overall potential of a firm, with the emphasis on long-term ownership in a company, which is extremely capable to generate earnings, rather than share value growth (Oberholzer, 2010)

The primary goal of any firm is to create value for its shareholders, i.e. to maximize the fundamental value of a firm's ordinary shares (Brigham & Ehrhardt, 2005). Fundamental means that the value should be sustainable over the long term (Barker, 2001), in other words, it must be supported by anticipated future earnings (Adams, 2002). The reason for analyzing the fundamental value is to determine a share's intrinsic value -a fancy term for what we believe a share is really worth -relative to the price it is traded in the market (Investopedia, 2009a). This will be helpful to the investor that is always searching for shares that are under valuated by the market and to be picked up as a bargain.

The problem with buying these shares is that the investor must wait for the market to come to the same conclusion before he/she can sell it at a profit (Beattie, 2009). To complicate it further, is that when the market share price increases, it does not necessarily mean that the investors have grown collectively wealthier, but only that their expectations of future earnings have increased (Barker, 2001). Another distortion is that speculation investors buy shares and they are not concerned about how much the market price of a share is represented by its discounted future cash flows and/or how questionable they are with regard to their quality, i.e. the fool theory, but they are more concerned as to whether they can sell it to another investor at a higher price (Investopedia, 2009a).

Thus, except for the fools and the greater fools, investors search for high quality (high intrinsic value that will realize high future cash flows) shares, that they believe are undervalued by the market, to pick it up as a bargain, wait until the market becomes aware of its real value, which will push it upwards.

#### 2.4.2.3 Prospect Theory (Loss-Aversion Theory)

Prospect theory states that people's perceptions of gain and loss are skewed. That is, people are more afraid of a loss than they are encouraged by a gain. If people are given a choice of two different prospects, they will pick the one that they think has less chance of ending in a loss, rather than the one that offers the most gains. Prospect theory is important for financial professionals and

investors. Although the risk/reward trade-off gives a clear picture of the risk amount an investor must take on to achieve the desired returns, prospect theory tells us that very few people understand emotionally what they realize intellectually. For financial professionals, the challenge is in suiting a portfolio to the client's risk profile, rather than reward desires. For the investors, the challenge is to overcome the disappointing predictions of prospect theory and become brave enough to get the returns they want.

Choices among risky prospects exhibit several pervasive effects that are inconsistent with the basic tenets of utility theory. In particular, people underweight outcomes that are merely probable in comparison with outcomes that are obtained with certainty. This tendency, called the certainty effect, contributes to risk aversion in choices involving sure gains and to risk seeking in choices involving sure losses. In addition, people generally discard components that are shared by all prospects under consideration. This tendency, called the isolation effect, leads to inconsistent preferences when the same choice is presented in different forms (Kahneman & Tversky, 1979).

An alternative theory of choice is developed, in which value is assigned to gains and losses rather than to final assets and in which probabilities are replaced by decision weights. The value function is normally concave for gains, commonly convex for losses, and is generally steeper for losses than for gains. Decision weights are generally lower than the corresponding probabilities, except in the range of low probabilities. Overweighting of low probabilities may contribute to the attractiveness of both insurance and gambling (Kahneman & Tversky, 1979).

#### 2.4.2.4 Rational Expectations Theory

According to (Somil, 2007), rational expectations theory states that the players in an economy will act in a way that conforms to what can logically be expected in the future. That is, a person will invest, spend, etc. according to what he or she rationally believes will happen in the future. By doing so, that person creates a self-fulfilling forecast that helps bring about the future event.

As Masomi & Ghayekhloo (2011), observed under the paradigm of traditional financial economics, decision makers are considered to be rational and utility maximizing. Although this theory has become quite important to economics, its utility is doubtful. For example, an investor thinks a stock is going to go up, and by buying it, this act actually causes the stock to go up. This

same transaction can be framed outside of rational expectations theory. An investor notices that a stock is undervalued, buys it, and watches as other investors notice the same thing, thus pushing the price up to its proper market value. This highlights the main problem with rational expectations theory: it can be changed to explain everything, but it tells us nothing.

#### 2.4.2.5 Bottom Line Theory

According to Mohammad (2014) it is important to study the theories of efficiency and review the empirical studies that lend credibility to them, in reality markets are full of inefficiencies. One reason for the inefficiencies is that every investor has a unique investment style and way of evaluating an investment. One may use technical strategies while others rely on fundamentals, and still others may resort to using a dartboard. Many other factors influence the price of investments, ranging from emotional attachment, rumors and the price of the security to good old supply and demand. Clearly, not all market participants are sophisticated, informed and act only on available information. But understanding what the experts expect - and how other market participants may act - will help us make good investment decisions for our portfolio and prepare us for the market's reaction when others make their decisions.

Knowing that markets will fall for unexpected reasons and rise suddenly in response to unusual activity can prepare us to ride out the volatility without making trades we will later regret. Understanding that stock prices can move with "the herd" as investor buying behavior pushes prices to unattainable levels can stop us from buying those overpriced technology shares. Similarly, we can avoid dumping an oversold but still valuable stock when investors rush for the exits. Education can be put to work on behalf of our portfolio in a logical way, yet with our eyes wide open to the degree of illogical factors that influence not only investors' actions, but security prices as well (Hubert & Wolfgang, 2011).

Generally, by paying attention, learning the theories, understanding the realities and applying the lessons, we can make the most of the bodies of knowledge that surround both traditional financial theory and behavioral finance

## 2.5. Empirical literatures review on the determinant factors

### 2.5.1. Profitability

Profitability, which is the stepping-stone in creating shareholders' value and paying dividends, gets substance in ratios, e.g. the ratios included in the Du Pont formula that have the strength that they aggregate the firm's performance in three broad categories namely income, investments and capital structure (Correia et al. ,2007).

Mukherjee and Naka (1995) argue that market forces such as demand and supply affect stock price movements. Any change in demand and supply, both of which can change at different rates causes fluctuation in share prices. If demand for a stock rises, its price tends to rise. An increase in supply depresses the stock price. Demand and supply are however related to other factors. Investment returns or company profitability is another potential factor. This factor is however dependent on profitability as there is no company that can pay good investment returns in terms of dividends and/or bonus issues to its shareholders without a solid profitability report. It is only when such company makes profit that it can declare dividend and/or bonus issues.

An impressive investment returns will attract more investors to the company; in other words, if returns on investment are attractive, there will be high demand for its stock and the price moves up. The reverse is the case when a company's investment returns is unattractive. Ordinarily, if a company is performing well in the area of profitability, investors will be interested to invest in such company and this will influence the share price of the company.

Gordon (1959) presented the bird-in-hand or the uncertainty hypothesis. As the name indicates, the author argued that dividends minimize the uncertainty associated with deferred dividend payments. Further explanation for the bird in hand theory has been given by Gordon (1963) and Walter (1963), in which they concluded that investors always prefer cash in hand rather than a future promise of capital gain due to minimizing risk or lowering risk. Due to this preference, investors pay higher prices for a company's shares with cash dividends compared to a company that holds their profits when other factors are fixed.

Shanab (2008) examined the impact of returns and risks on the share prices for a sample of 38 industrial public companies in Jordan listed on Amman security exchange for the period of 2000 to 2007. The results of the study showed that there is no effect for the returns, risks and dividends on the market value per share. However, the results indicated that there is a significant relationship between cash flow and share prices.

Kurdi's (2005) study explored the ability of the published accounting information to predict share prices for a representative sample of 110 Jordanian public companies listed in Amman security exchange for the period of 1994 to 2004. The results informed that there is a relationship between the published accounting information of the insurance public companies and their share.

### 2.5.2. Firm size

Firm size is the total market value of the securities in a mutual fund's portfolio. Companies have intangible assets, too, such as patents, trademarks, brand names and other intellectual property. It is control variable which measure by natural logarithm of total assets (Kajola, 2010) and (King & Santor, 2008).

Pavelková & Knápková (2009) suggested that when a firm becomes larger, it enjoys economics of scale and its average cost of production is lower and operational activities are more efficient. Akbas & Karaduman (2012) while citing Hardwick (1997), stated that larger firms have some advantages such as greater possibility of taking advantage of scale of economies which can enable more efficient production, a greater bargaining power over both suppliers and distributors or clients, exploiting experience curve effects and setting prices above the competitive level.

By citing Weiner and Mahoney (1981), (Ravenscraft & Scherer, (1987), Akbas & Karaduman (2012) also argued that larger firms are more stable and mature and they can generate greater sales because of the greater production capacity and finally, those firms have the chance of capital cost savings with the economies of scale.

### 2.5.3 Leverage

Kumar and Hundal (1986) examined the impact of dividend per share, earning per share, net sales per share, book value per share, earning per share, net worth, retention ratio, leverage ratio and growth in total assets on market price of share by using the linear regression model. The analysis also showed the sensitiveness of the market towards the dividend policy of the three groups. Growth showed a positive influence only in case of textile industry. Leverage in general had a negative influence on the share prices.

Uwuigbe, Olusegun, & Godswill (2012) examined the determinants of share prices in the Nigerian stock exchange market. Using the judgmental sampling technique, a total of 30 companies were selected and data (2006 to 2010) collected from the stock exchange and annual reports of the firms. The paper modelled the effects of financial performance, dividend payout and financial leverage on share price of listed firms by using regression analysis. The study concluded that financial performance and dividend payout had a significant positive relation with share prices while financial leverage (measured by debt-equity ratio) had significant negative influence on the market value of share prices in Nigeria.

### 2.5.4 Inflation

The traditional view that expected nominal rates of return on assets should move one-for-one with expected inflation is first attributed to Irving Fisher (1930). Financial economists have also argued that, because stocks are claims on physical, or "real", assets, stock returns ought to co-vary positively with actual inflation, thereby making them a possible hedge against unexpected inflation. During the mid to late 1970s, however, investors found that little could be further from the truth; at least in the short and intermediate run, stocks prices were apparently quite negatively affected by inflation, expected or not.

Most of the earliest studies mainly document the negative co-variation between actual equity returns and actual inflation e.g. Lintner (1975), Bodie (1976). With some identifying assumptions, Fama & Schwert (1977) decompose inflation into expected and unexpected inflation and found both pieces to be negatively related to stock returns. Other early studies focused on the apparent negative relationship between inflation and the level of real equity prices, as reflected in dividend yields and price-earnings ratios.

Feldstein(1980) argued that much of inflation's negative valuation effect could be explained by interactions between inflation and the tax code, such as those arising from inflation-related distortions to accounting profits. To the contrary, Modigliani & Cohn (1979) and Summers (1981) argued that such an explanation could not account for the styled facts. Instead, they suggested that stock prices may have been distorted by money illusion, that is, stocks were priced as if investors mistakenly used nominal interest rates to discount real earnings.

Sharpe (2002) examined stock valuation and inflation for the time period of 1965-2001 to check this he collected monthly historical annual operating income for S&P500 from Institutional

Brokers' Estimate System International. The negative relation between equity valuations and expected inflation was found to be the result of two effects: a rise in expected inflation coincides with both lower expected real earnings growth and higher required real returns. The earnings channel mostly reflects a negative relation between expected long-term earnings growth and expected inflation. The effect of expected inflation on required (long-run) real stock returns is also substantial. He run the simple regression and concluded that there is strong negative relationship between stock returns and inflation.

Overall as per the study undertakemn by Sharma (2011) the empirical relationship between equity share prices and the explanatory variables; Book Value Per (BVP) share, Dividend Per Share (DPS), Earnings Per Share (EPS), price earnings ratio, dividend yield, dividend payout, size in terms of sale and net worth for the period 1993 to 1994 and 2008 to 2009 in India. Using correlation and a linear multiple regression model the results revealed that EPS, DPS and BVP had significant impact on the market price of shares with the former two being the strongest determinants. This was rebounded by Nirmala, Sanju, & Ramachandran (2011) when they conducted a study on the determinants of share prices in India wherein share price was modeled as a function of firm specific variables; dividend, profitability, price-earnings ratio and leverage for the period 2000 to 2009.

### 2.5.5. Lagged Earning per share

With the increasing global competition, companies are focusing their efforts on creating shareholder value in order to survive the intense competition. In view of this, it is becoming important for companies to measure the value they create for their shareholders. Keeping track of the value created year-on-year enables companies to evaluate past decisions and make decisions that will improve shareholder value (Moncla & Arents-Gregory, 2003).

Investors and market analysts resort to financial statement analysis when it comes to share investing. The information on earnings per share (EPS) is presented on the income statement while return on assets (ROA), which is one of the profitability ratios, is computed using relevant numbers from the income statement and balance sheet. The broad area of financial accounting and reporting offers a number of fundamental measures of a firm’s performance for a particular accounting period. One of these financial measures is the earnings per share (EPS). Previous studies on EPS

as a predictor of share price generated mixed results. Some research works concluded that EPS is a significant predictor when the firm consistently increases its EPS over a longer period of time.

Bhatt & Sumangala (2012) collected data about EPS and market value of equity share of 50 companies from 2006-07 to 2010-2011 and concluded that EPS impacts the market value of an equity share in the Indian context. Sharma (2011) tries to detect relationship of stock price with book value per share, dividend per share, earning per share, price earnings ratio, dividend yield, dividend payout, size in terms of sale and net worth. The results revealed that earning per share, dividend per share and book value per share has significant impact on the market price of share.

### 2.5.6 Dividend payment history

SHAHIN (2012) examined the impact of dividend per share, earning per share, net sales per share, book value per share, net worth, retention ratio, leverage ratio and growth in total assets on market price of share by using the linear regression model. The analysis also showed the sensitiveness of the market towards the dividend policy of the three groups. Growth showed a positive influence only in case of textile industry. Leverage in general had a negative influence on the share prices.

The denominator of the dividends per share formula generally uses the annual weighted average of outstanding shares. The weighted average is also used with the earnings per share formula. However, there are key differences between these two formulas. The numerator for earnings per share is net income, or earnings. The numerator for the dividends per share formula is dividends. Earnings is effectively a continuous process throughout the year whereas dividends are paid at a given moment. How often a company pays a dividend may warrant consideration for how to calculate the per share portion of the formula when using financial analysis for investments
Dividend is the portion of the profit after tax, which is distributed to the shareholders for their investment bearing risk in the company

$$DPS = \frac{Dividends}{Number\ of\ Shares}$$

### 2.5.7 Social Factors

Dimitrios (2007) conducted a study on investors behavior in the and found that individual investors rely more on newspapers/media and noise in the market when making their investment decisions, while professional investors rely more on fundamental and technical analysis and less on portfolio

analysis. Market participants are exposed to a constant flow of information, ranging from quantitative financial data to financial news in the media, and socially exchanged opinions and recommendations. Processing all this information is a difficult task. Variables that are loaded heavily on this factor include coverage in the financial and general press, recent stock index returns, information obtained from internet, current economic indicators and recommendations by investment advisory services (Francis and Soffer, 1997).

In Nigeria, the study conducted by Aregbeyen & Mbadiugha(2001) found that the ten most influencing factors on investor's decision in order of importance are: motivation by people who have attained financial security through share investment, future financial security, recommendations by reputable and trusted stock brokers, management team of the company, awareness of the prospects of investing in shares, composition of the board of directors of companies, recent financial performance of the company, ownership structure of the company, reputable predictions of future increment in share value and bonus payments.

Advocacy factors such as brokerage house recommendation, family member opinion friends and co-workers recommendation and opinion of firm's majority shareholders do have some influence on investment decisions (Merikas et al., 2003)

### 2.5.8 Cultural Factors

It is believed that investment decisions are a function of several factors such as market characteristics and individual risk profiles, in addition to accounting information. The disposition error shows that regardless of accounting information, investors are influenced by sunk cost considerations and asymmetrical risk preferences for gain/loss situations. The research findings by Nagy & Obenberger (1994) which examined factors influencing investor behavior, suggested that classical wealth – maximization criteria are important to investors, even though investors employ diverse criteria when choosing stocks. Contemporary concerns such as local or international operations, environmental track record and the firm's ethical posture appear to be given only cursory consideration. The recommendations of brokerage houses, individual stock brokers, family members and coworkers go largely unheeded.

### 2.5.9. Psychological Factors

Hussein (2007) found that expected corporate earnings, get rich quickly, stock marketability, past performance of the firm's stock, government holdings, and the creation of the organized financial markets are the investors considerations. Market participant's behavior is dependent upon own psychology, for instance Hede(2012) suggests that 'herd behavior' is the most observed in financial markets. Yet many other factors also influence the individual behavior. Equity selection by an individual investor might reflect perceptual beliefs, than rational expectations of Efficient Market Hypothesis.

Prior evidence shows that equity investment of the retail investors, individuals who buy and sell securities for their personal account, is influenced by many factors including firm related, macro environment and investor psychology related. However, evidence on performance has some contradictory conclusions. For instance, Phansatan et al.(2012) find that retail traders are generally found to have relatively poorer trading performance while institutional investors are found to have informational advantages over other investor types, thus augmenting their trade performance. In contrast, recent evidence from Chen et al.(2014) suggests that the individual investors are successful at picking stocks.

## 2.6. Existing researches gap

Among all the theories explaining the factors influencing investment decisions in shares of quoted companies in the literature as reviewed above, the behavioral finance theory is adjudged to be the most comprehensive, systematic and relevant to investors' decision making attitude on shares in the context of this study. This is because while all the other theories consider investment decisions only from economic perspectives, it takes into account the psychology and social context of human decision making, arguing that humans do not make rational decisions, rather they are being influenced by factors like social, economic, psychological, cultural etc factors. This theory therefore constitutes the framework for the analysis conducted in this study.

Based on this theoretical/analytical framework, the researcher identified five factors each based on literature representing economic, cultural, social and psychological factors that could influence investment decisions in shares and use them alongside secondary financial data to develop structured questionnaire to collect data and conduct the investigation.

The review of the literature reveals the existence of many gaps of knowledge in respect of the factors affecting investors' preference, particularly in the context of Ethiopia. As per the review of the literature most of the empirical studies that have been conducted with the aim of identifying factors affecting investors' preference belong to European Union and some emerging markets such as Philippines, Malaysia and Tunisia. Moreover, the literature review also reveals the existence of controversial conclusions that results from different studies made so far. Furthermore, so far as the review of the literature discloses, very scanty work has been done with the objective of identifying the determinants of investors' preference in Sub Saharan Africa in general and Ethiopia in particular.

The results of some empirical studies about factors influencing individual investor behavior have been reviewed for this particular study. Researchers gave a substantial attention to institutional investors, whereas less attention is given to the individual investors' behavior that is the emphasis of this research. As it is indicated in the literature review part, a number of studies have been undertaken to identify the factors influencing individual investor's decision preference to invest in stock markets by considering specific factors such as profitability, leverage, firm size, earnings etc.

In the previous researches shares price is used as proxy to measure investors' preference and also emphasized that there is a direct relationship between shares price and earning per share. In this research earning per share is used as a proxy to measure the investors' preference. One of the problems not to use the share price as a measure is due to the non-availability of the secondary market and highly regulated of the financial industry by the NBE. But previous studies didn't touch about the determinant factors that individual investors want to know and incorporate as part of their decision making process before investing on shares of investment opportunities in Ethiopia . This paper tried to attempts a study of the determinants factor of individual investors' preference to invest specifically on the shares of insurance companies operating in Ethiopia

# CHAPTER THREE: DESIGN OF THE RESEARCH

## 3.1. Introduction

Research design is the program that guides the researcher in the process of collecting, analyzing and interpreting the data. Therefore, the nature of the problem and objective of any study usually determine the type of research design adopted by the researcher. A choice of research design reflects the priority of a researcher about the dimensions of the research process and methods (Mohammed, 2014).

This chapter discusses the methodology that provides a detailed direction about the methods that the researcher used to conduct the study. Jankowicz (2006) defines methodology in respect to research as 'the analysis of, and rational for, the particular method or methods used in general". Given the above definition, we can simply say methodology of the study is all about the procedures employed in carrying out a research.

This chapter specifically covers the methods and materials of the study and takes into account the entire research design which is the method adopted in the sampling technique, the nature and source of data and the method of data collection and analysis. The whole plan of the study is discussed in detail under this chapter.

## 3.2. Research hypotheses and questions

As stated in chapter one, the objective of this study is to examine the determinant factors of individual investors that they want to know about the company before investing on shares of Ethiopian insurance share companies. The earning per share is used as a proxy to measure the investment interest of investors on the financial factors part of the research which is used to support the primary data collected from the individual shareholders through questionnaire. This means when a company's earnings per share varies due to the below independent variables, that will affect the investors preference whether to invest or not in a specific insurance company. In addition to the financial factor there are three variables of Social, cultural and psychological which are qualitatively measured by questionnaire which is obtained from individual shareholders.

### 3.2.1 Operationalization of the Variables

Operationalization of Variables is defining each variable based on specific jargon and uses of words that are characteristic to our area of research. Operationalization answers two key questions: how is each variable defined and how is each variable measured.

Nagy and Obenberger, (1994) investigated the extent to which a listing of 34 variables influence shareholders' perception, and provide evidence of a role for a mix of financial and non-financial variables. Fisher and Statman, (1997), relying on general agreement that the investment decision is a complex one, suggest that investors are not only concerned about risk and return when buying shares, but also several other parameters taken into consideration.

For the purpose of statistical analysis of the investors' preference, earning share is taken as the dependent variable which is analyzed using both primary and secondary data. Financial and non-financial factors are used in the primary data and only financial factors are used for the secondary data.

The primary data is used to determine the influence of financial and non- financial factors on the individual investors' preference to invest on the shares of Ethiopian insurance companies. The financial independent variables used in this research are profitability, firm size, leverage, inflation, one year lagged earning per share & dividend paid and the non-financial variables are categorized in to social, cultural and psychological. This is a qualitative data and analyzed by using a descriptive statistical method. The data is obtained through questionnaire from the shareholders of the insurance companies.

The secondary data, which is only financial, is used to determine the relationship between the determinants of individual investors' investment preference which is denoted by earning per share as a dependent variable and the independent variables are profitability, firm size, inflation and one year lagged earning per share. Therefore, the quantitative research method is well suited method for this part

Dividend is considered as part of the financial indicator but not supported by secondary data due to the none-availability of this information both at NBE and with the sampled insurance companies for the study period and therefore assessed only on the primary data. Both the dependent and independent variables are explained in detail below:

**Dependent variable for the secondary data**

### 3.2.1.1 Earnings per Share (EPS)

Earnings per share, also called net income per share, is a market prospect ratio that measures the amount of net income earned per share of stock outstanding. In other words, this is the amount of money each share of stock would receive if all of the profits were distributed to the outstanding shares at the end of the year.

Earnings per share is a calculation that shows how profitable a company is on a shareholder basis. So a larger company's profits per share can be compared to smaller company's profits per share. Obviously, this calculation is heavily influenced on how many shares are outstanding. Thus, a larger company will have to split its earning amongst many more shares of stock compared to a smaller company. This variable is measured as**,** EPS = Net Profit after Tax – Preference Dividend

No. of outstanding shares

The equation for the research is EPS=f (Profit, size, leverage, Inflation, EPSt-1)

**Independent Financial variables:**

### 3.2.1.2 Profitability

The profitability of the insurance companies is measured by the return on asset (ROA). ROA is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. The formula for return on assets is:

$$= \frac{\text{Net Income}}{\text{Total Assets}}$$

Mukherjee and Naka (1995) argue that market forces such as demand and supply affect stock price movements and if a company is performing well in the area of profitability, investors will be interested to invest in such company and this will influence the share price of the company.

Profitability is a financial benefit that is realized when the amount of revenue gained from a business activity exceeds the expenses, costs and taxes needed to sustain the activity. Any profit that is gained goes to the business's owners, who may or may not decide to spend it on the business.

### 3.2.1.3 Firm size (total asset)

This variable is measured by the natural logarithm of the total asset of the companies.

Firm size is the total market value of the securities in a mutual fund's portfolio. Total assets or total net assets are used to describe a firm's size. Total assets represents the combined value of all assets owned by a company. An asset is anything that can provide future economic benefit and whose value can be measured reliably and objectively. Cash in a company's bank account is an asset, of course, as are items in its inventory; its accounts receivable; stocks and other securities; and land, buildings, vehicles and equipment. Companies have intangible assets, too, such as patents, trademarks, brand names and other intellectual property. It is control variable which measure by natural logarithm of total assets (Kajola, 2010) and (King & Santor, 2008). In most previous studies, firm size is expressed by the natural logarithm of total assets.

One of the strongest effects investigators have found is the tendency over long periods of time for smaller-company stocks to generate larger returns than those of large-company stocks. Since 1926, small-company stocks in the United States have produced rates of return over one percentage point larger than the returns from large stocks (Keim, 1983).

The issue of firm size is not of minor importance. An interesting aspect of economic growth is that much of it takes place through the growth in the size of existing organizations. For instance, in the sample of 43 countries they study Rajan & Zingales (1998a) and that two thirds of the growth in industries over the 1980s comes from the growth in the size of existing establishments, and only the remaining one-third from the creation of new ones. It is thus useful to study the potential determinants of the size of economic organizations, and ask if there are any constraints to size and, hence, any potential constraints to growth.

#### 3.2.1.4 Leverage

It is a measure of a company's financial leverage calculated by dividing its total liabilities by stockholders' equity.

$$= \frac{\text{Total Liabilities}}{\text{Shareholders Equity}}$$

If a lot of debt is used to finance increased operations (high debt to equity), the company could potentially generate more earnings than it would have without this outside financing. If this were to increase earnings by a greater amount than the debt cost (interest), then the shareholders benefit

as more earnings are being spread among the same amount of shareholders. However, the cost of this debt financing may outweigh the return that the company generates on the debt through investment and business activities and become too much for the company to handle. This can lead to bankruptcy, which would leave shareholders with nothing.

Kumar and Hundal (1986) examined the impact of dividend per share, earning per share, net sales per share, book value per share, earning per share, net worth, retention ratio, leverage ratio and growth in total assets on market price of share by using the linear regression model. The analysis also showed the sensitiveness of the market towards the dividend policy of the three groups. Growth showed a positive influence only in case of textile industry. Leverage in general had a negative influence on the share prices.

#### 3.2.1.5 Inflation

This is measure by the general inflation of Ethiopia during the study period. Most of the earliest studies mainly document the negative co-variation between actual equity returns and actual inflation e.g. Lintner (1975), Bodie (1976). With some identifying assumptions, Fama & Schwert (1977) decompose inflation into expected and unexpected inflation and found both pieces to be negatively related to stock returns.

The main problem with stocks and inflation is that a company's returns tend to be overstated. In times of high inflation, a company may look like it's prospering, when really inflation is the reason behind the growth. When analyzing financial statements, it's also important to remember that inflation can wreak havoc on earnings depending on what technique the company is using to value inventory. For this research it is measured by the general inflation of Ethiopia in the years of study

#### 3.2.1.6 Lagged Earnings per Share (LEPS)

This is measured by one year lag of the dependent variable which is earning per share**.**

The reason to include the lagged value of the dependent variable in the model is by expecting that the current year earnings per share is heavily determined by its previous years earning per share. To explain earning per share in the year‘t’, data used to calculate the values of explanatory variables relate to the years (t-1) i.e., preceding the year‘t’ (t refers to the year, the earning per share of which is being explained). This is based on the assumption that the investment decisions

made by individuals in a given year as well as other variables are apt to affect the earning per share in the following year when the data is publicly made available.

### 3.2.1.7 Dividend Payment

Dividend is the portion of the profit after tax, which is distributed to the shareholders for their investment bearing risk in the company

$$DPS = \frac{Dividends}{Number\ of\ Shares}$$

**Independent non-financial Variables:**

### 3.2.1.8 Social Information

The impact of social information on the individual investors' investment preference was assessed by questioning insurance shareholders about how the information obtained through recommendations & advices from insurance sales agents, information broadcasted by medias, information from insurance's operational report, the industrial peacefulness, the unavailability of other investment opportunities and reputed management in the insurance companies has influenced their choice of insurance for investment.

### 3.2.1.9 Cultural Information

The impact of cultural information on the individual investors' investment preference was assessed by questioning insurance shareholders about how the information obtained through peer influence, the insider information, knowledge or awareness of the industry, awareness creation by insurance companies and sensitization programs by the insurance company has influenced their choice of insurance for investment.

### 3.2.1.10 Psychological perception

The impact of psychological perception on the individual investors' investment preference was assessed by questioning insurance shareholders about how their perception of retirement plan, the financial benefits of the existing shareholders, liquidity (marketability) characteristics of the share, stability of the insurance industry and excess fund availability on hand has influenced their choice of insurance for investment.

In order to test the hypotheses the below research questions (RQ) were assumed:

**RQ1. Are investors influenced by the different financial statues of the insurance companies to invest on them?**

**RQ2. Does social information acquired through different opportunities influence the individual investors' preference to invest on the shares of Ethiopian Insurance companies?**

**RQ3. Does cultural information acquired through different opportunities influence the individual investors' preference to invest on the shares of Ethiopian Insurance companies?**

**RQ4. Does the psychological perception of individuals influence the individual investors' preference to invest on the shares of Ethiopian Insurance companies?**

### 3.3. Population and Sampling

The target population of the study was all the insurance companies registered by NBE which are operating in Ethiopia and all the shareholders of the sampled insurances. There are currently seventeen (17) listed and registered insurance companies as per the information from the national bank of Ethiopia; sixteen share companies and one governmentally owned. While selecting sample of companies from the industry, an insurance has been regarded as eligible for inclusion in sample if it satisfies at least following conditions:

- The availability of financial data required for calculating the values of dependent variable and independent variables pertaining to all the years from 2003 to 2014.
- Insurances which are licensed and registered by the national bank of Ethiopia.
- Insurances that are established through issuance of shares, which means excluding government owned insurances

Accordingly, due to the lately establishment of the eight insurances from the sixteen share insurances, the rest eight (8) were wholly taken as sample of the study from the sixteen (16) population. This sample is fifty percent (50%) of the population of the share companies listed and registered by the national bank of Ethiopia which is consistent with the propositions of Krejcie & Morgan (1970) where a minimum of 5 percent of a defined population is considered as an appropriate sample size for making generalizations.

For the primary data collection, the research design was adopted with a population of approximately 3,274 shareholders at the sampled insurance from whom a sample of 88 shareholders, 11 from each sampled insurances, were randomly selected for the study.

The list of Ethiopian insurance companies in their order of establishment period, sampled insurances and number of shareholders is attached on annex 3 as per the information obtained from NBE.

## 3.4. Data collection and method of data analysis

### 3.4.1. Sources of data or Tools of research

According to Ghauri & Gronhaug (2005), research design provides a plan or a framework for data collection and its analysis, which contains the research method and the priorities of the researcher. To test the hypotheses and achieve the broad objective, the study used primary and panel secondary data. Panel data is the combinations of cross-sectional and times series data. It is common in economics since it provides massive source of information about economy. Panel data is also called pooled data, micro panel data, longitudinal data, event history analysis and cohort analysis (Gujarati, 2003).

To collect the primary data the researcher used a structured questionnaire (attached on appendix 3) that was developed by the researcher and personally administered to the respondents. The respondents were the individual investors i.e. individuals who have shares in the sampled insurance companies. The questionnaire was structured with four categories: Financial information, social information, cultural information and psychological perception with a total of twenty two questions. The first section contains six questions relating to financial factors, the second section contains six questions related to social information, the third section contains five questions related to the cultural information and the forth section contains five questions related to psychological perception about the factors that will influence individual investors' investment preference to invest on the shares of Ethiopian insurance share companies. The question was designed using a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

The data were collected, examined and tabulated by the researcher for further analysis. The names and addresses of shareholders were obtained from the marketing department of each insurance companies. The data was analyzed using frequencies, mean scores, standard deviations and percentages using SPSS.

The secondary panel data for this study was gathered and analyzed from the audited and published annual financial report by the listed and registered of the eight (8) insurance share companies. The annual financial data covers from 2003 to 2014 in order to assess the determinants of individual investors' investment preference to invest/buy the shares of Ethiopian insurance share companies.

Besides this other sources like annual reports, magazines, brochures, journals, newspapers, websites, etc. were used whenever necessary. The sources of data for this study were the balance sheets and income statements of those insurance companies which were in operation for the period of twelve (12) years, from 2003 to 2014, that are mainly obtained from the national bank of Ethiopia, which is the government entity responsible for the provision of comprehensive database for all insurance companies as a government and independent organization.

### 3.4.2. Method of data Analysis

The primary data, both financial and non –financial about the financial, social, cultural and psychological, was coded, tabulated and analyzed using both descriptive and inferential analysis with the help of SPSS package which enabled data interpretation and making of statistical inferences. The descriptive analysis was used to organize and characterized the data, while the inferential analysis was used to draw important deductions.

For the secondary data, about the financial factors, the study deployed correlation and a linear multiple regression models ( a models with many variables) to identify the direction and significance of relations between the dependent variable and the independent variables while the magnitude of change in earning per shares for the companies was analyzed. A linear multiple regression model is used to measure the combined effects of explanatory variables on the dependent variable. The regressions were performed by utilizing the Ordinary Least Square (OLS) and to estimate the regression coefficients.

According to Brooks (2008), it is of greater interest and it is more valid to have more than one explanatory variable in the regression equation at the same time, and therefore to examine the effect of all of the explanatory variables together on the explained variable. As there is more than one variables in the study, a linear multiple regression model which is formulated as follows is used: $Yt = \beta0 + \beta1x2t + \beta2x3t + \cdots + \beta k\, xkt + ut$ , $t = 1, 2, \ldots, T$

The variables x2t, x3t. . . xkt are a set of $k - 1$ explanatory variables which are thought to influence Y, and the coefficient estimates $\beta0, \beta1, \ldots, \beta k$ are the parameters which quantify the effect of each of these explanatory variables on Y. Each coefficient is known as a partial regression coefficient, interpreted as representing the partial effect of the given explanatory variable on the explained variable, after holding constant, or eliminating the effect of, all other explanatory variables. Therefor the actual model that was used to determine the association between the dependent variable and the independent variables is developed as follows:

EPS= F (PROF, FS, LEVERAGE, INF, LEPS)

EPS i,t= α + β1PROFi,t + β2FSi,t + β3LEVERAGEi,t + β4INFi,t + β5LEPSi,t + U

Where: EPS = Earnings per share of a company at time ‘’t’

PROF = Profitability of a company at time ‘’t’’

FS = firm size (total asset) of a company at time ‘’t’’

LEVERAGE = debt to equity ratio of a company at time ‘’t’’

INF = inflation rate in Ethiopia at time ‘’t’’

LEPS = the one year lagged value of the earnings per share of a company at time ‘’t’’

U = the disturbance or error term; T = time dimension of the variables

α = the Constant term or intercept.

β1-5 = Coefficients to be estimated or the coefficients of slope parameters

| Variables | | Measurement | Expected sign of independent variables |
|---|---|---|---|
| Dependent | EPS | $\frac{\text{Profit after tax}}{\text{Outstanding share}}$ | |
| Independent | PROF(ROA) | $= \frac{\text{Net Income}}{\text{Total Assets}}$ | + |
| | LEVERAGE | $= \frac{\text{Total Liabilities}}{\text{Shareholders Equity}}$ | + |
| | FS | Logarithm of total assets | + |
| | INF | Log of general annual inflation of the country | -/+ |
| | LEPS | One year lagged value of EPS | + |

*Table 3.1 Variables measurement and expected signs*

# CHATER FOUR: ANALAYSIS

## 4.1. Introduction

This chapter deals with the data analysis and interpretation of results of the primary data collected through questionnaire from the insurance shareholders in part one and part two shows the regression analysis of the secondary data. Regression analysis is conducted on the data from the eight insurance companies for the same time period from 2003 to 2014. The earning per share of each companies were regressed against the five independent variables in order to determine their relationship and level of significance.

## 4.2. PART ONE: ANALYSIS OF THE PRIMARY DATA- both financial and non-financial

### 4.2.1 Introduction

The primary data is about both financial and non-financial factors which was collected through questionnaire from individual shareholders of insurance share companies. A questionnaire is simply a tool for collecting and recording information about a particular issue of interest. The researcher use a close ended questionnaire which is a question format that limits respondents with a list of answer choices from which they must choose to answer the question. The advantage of using a close ended questionnaire is that it is easier and quicker for respondents to answer, the answers of different respondents are easier to compare, answers are easier to code and statistically analyses and the response choices can clarify the question's meaning for respondents.

The questionnaire was distributed to 88 insurance shareholders out of 3,274 population, 11 from each of the 8 sampled insurance companies, but the response was 72 which is 82 percent. According to Johnson & Owens (1962) there is no minimum threshold in place, one editor indicated that reviewers consider response rate as one of the evaluative criteria and it will contribute to a decision on publication. The editor of another journal agreed, adding that in most instances, 20% is too low, and 80% is a de facto standard, but there is a considerable gray area. Therefor the response rate of the 90 % for this research is above the standard.

The next part contains the disclosure of the respondents on the factors that have influenced their investment decisions in shares and organized into four major subgroups. These are financial, social, cultural and psychological factors.

### 4.2.2 Financial Factors

The financial independent variables used and captured in the questionnaire for this research are:

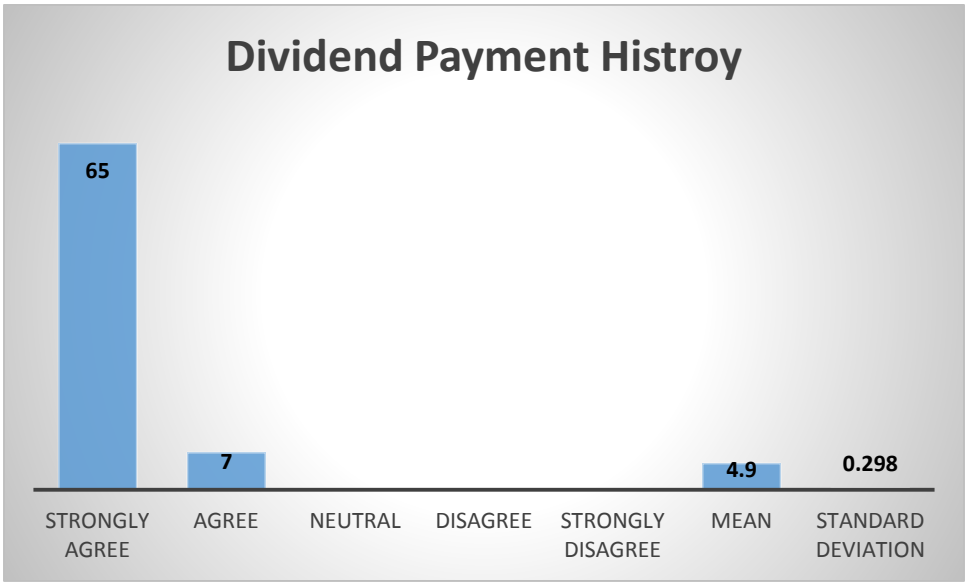
- Dividend payment history
- Profitability
- Firm size
- Leverage
- Inflation
- Lagged EPR

The analysis of the result of the questionnaire is as follows:

#### 4.2.2.1 Dividend payment history

The first question was about the historical dividend that ‘’whether the historical dividend that has been declared or paid to the existing shareholders influence individual investors preference to invest on shares of insurance companies’’. The result summary of this question is shown below.

*Figure 4. 1 Dividend payment history result of the questionnaire*




*Source: Author’s analysis*

As shown above on figure 4.1 above, 90.3 percent of the respondents indicated that the historical dividend that has been declared or paid by the insurance companies to the existing shareholders highly influence their preference to invest on shares of insurance companies and the rest 9.7 percent agreed on the influence of historical dividend declared or paid on investors preference whether to invest or not on the shares of insurance companies.

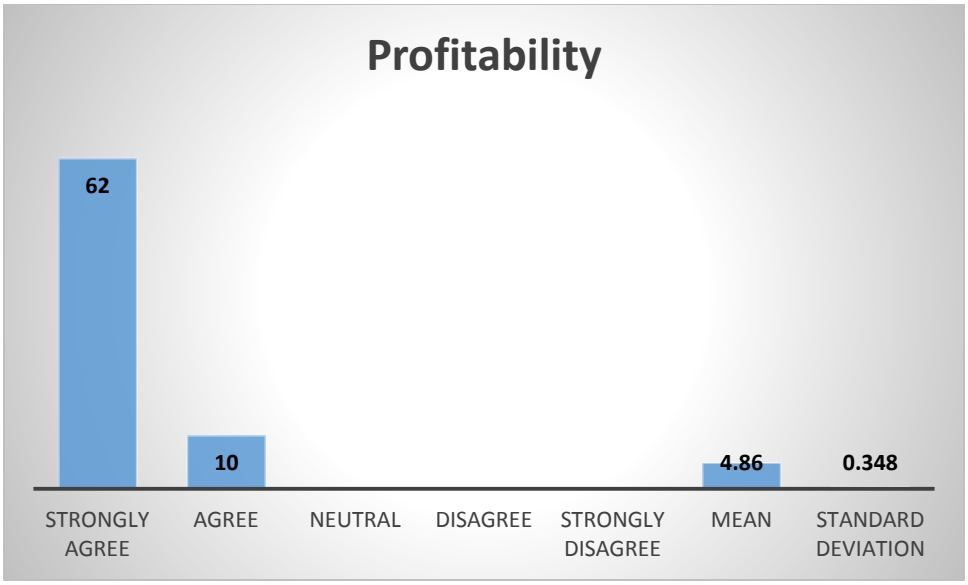
The mean or average value of this question's responses is 4.9 with standardization of .298 which is too near to the strongly agree weight, 5.

Srivastava (1987) examined cross- section study of 327 companies and concluded that high dividend rates are associated with higher market prices of securities in India and therefor understanding the impact of various fundamental variables on earning per share is very much helpful to investors as it will help them in taking profitable investment decisions

### 4.2.2.2 Profitability

The second question was trying to address whether investors want to know the profitability of the insurance companies before deciding to invest on them. The result summary of this question is shown below.

*Figure 4. 2 Profitability result of the questionnaire*




*Source: Author's analysis*

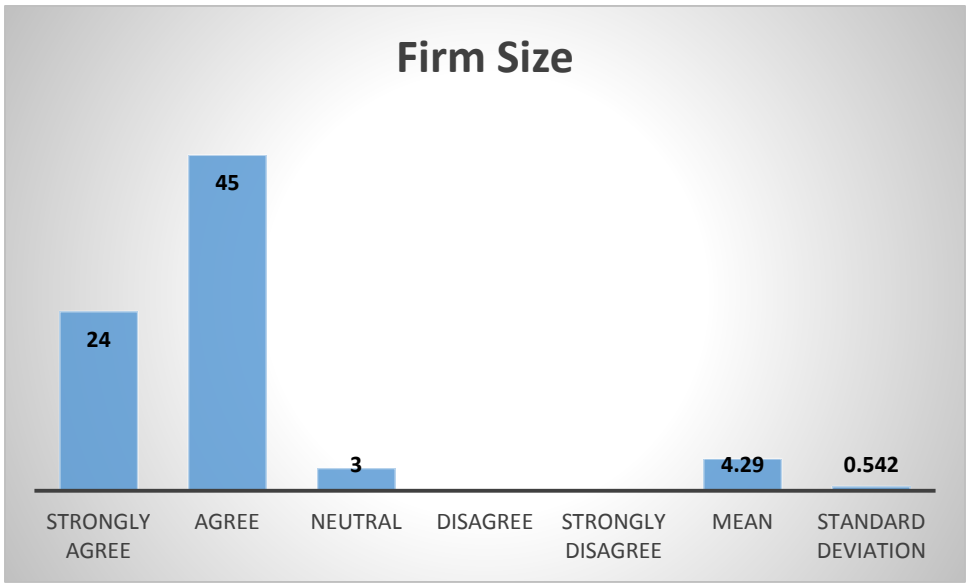
As shown above on figure 4.2, 86.1 percent of the respondents indicated the profitability of the insurance company highly influence their investment preference before deciding to invest and 13.9 percent of the respondent were also influenced for the same case. The mean or average value of this question's responses is 4.86 which is too near to the strongly agree weight, 5.

This is supported by the regression result of the secondary data that profitability is highly statistically significant and has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies. Previous researches also confirm this like Mukherjee and Naka (1995) who argued that market forces such as demand and supply affect stock price movements and if a company is performing well in the area of profitability, investors will be interested to invest in such company and this will influence the share price of the company

#### 4.2.2.3 Firm size

The investors' preference regarding the firm size, measured as the total asset of the company, was addressed on the third research question of whether it is important to know the firm size of the insurance company before deciding to invest on it or not. The result summary of the question is shown below.

*Figure 4. 3 Firm Size result of the questionnaire*




*Source: Author's analysis*

As shown above on figure 4.3, only 33.3 percent of the respondents indicated that knowing the firm size of the insurance company before deciding to invest on it highly influence their investment preference and the majority, which is 62.5 percent, agreed on its importance but 4.2 percent of the respondents were neutral on knowing the firm size of the company when deciding to invest on the insurance companies.

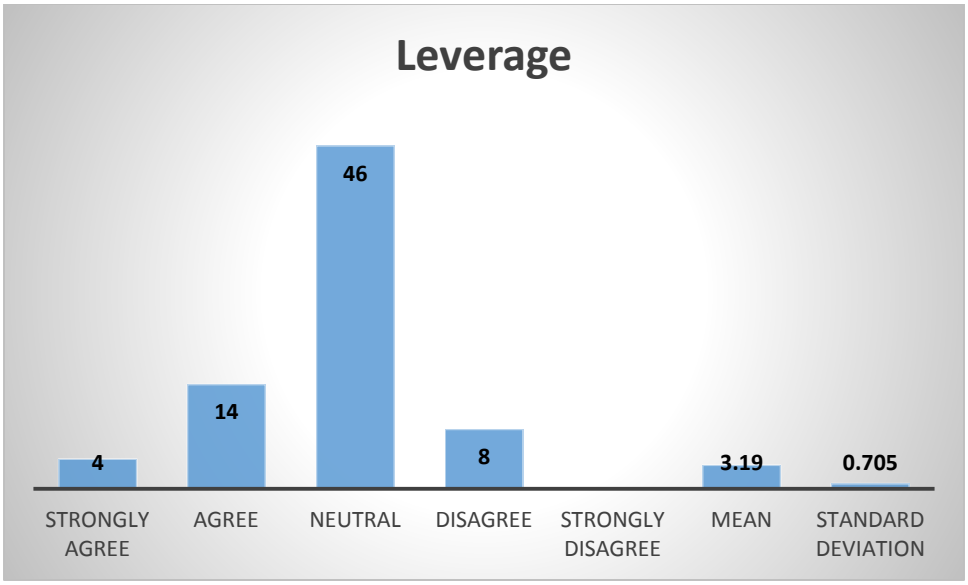
The mean or average value of this question's response is 4.29 which is more than the weight, 4, given for the agree choice. The result of this variable is in line with the regression result of the secondary data that firm size is statistically significant and has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies.

This is supported by the regression result of the secondary data that firm size is highly statistically significant and has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies. In addition previous researches like Ravenscraft & Scherer (1987) and Akbas & Karaduman (2012) by citing Weiner and Mahoney (1981) argued that larger firms are more stable and mature and they can generate greater sales because of the greater production capacity and finally, those firms have the chance of capital cost savings with the economies of scale and increase earnings which will help firms to attract investors

#### 4.2.2.4 Leverage

The forth question was about leverage, measured as debt to equity ratio, which tried to capture the investors preference whether they are interested to know the leverage statues of the insurance company before deciding to invest on it or not. The result summary of the question is shown below.

*Figure 4. 4 Leverage result of the questionnaire*




*Source: Author's analysis*

As shown above on figure 4.4, 63.9 percent of the respondents were indifference about knowing the leverage statues of the insurance company while deciding to invest and 11.1 percent of the respondents disagreed about the influence of leverage statues of the insurance company in which they want to invest. But 19.4 percent of the respondents indicated that leverage influence their investment decision preference and only 5.6 percent of the respondents were highly influenced by the leverage status of the insurance company. This shows that individuals have different attitude towards leverage

The mean or average value of this question's response is 3.19 which is almost equal to the weight, 3, given for the neutral choice. The overall result of this variable is near to the regression result of the secondary data that leverage is not statistically significant and but has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies. This is supported by the regression result of the secondary data that leverage is not statistically significant and has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies. As indicated in the previous research leverage has mixed sense among individuals.

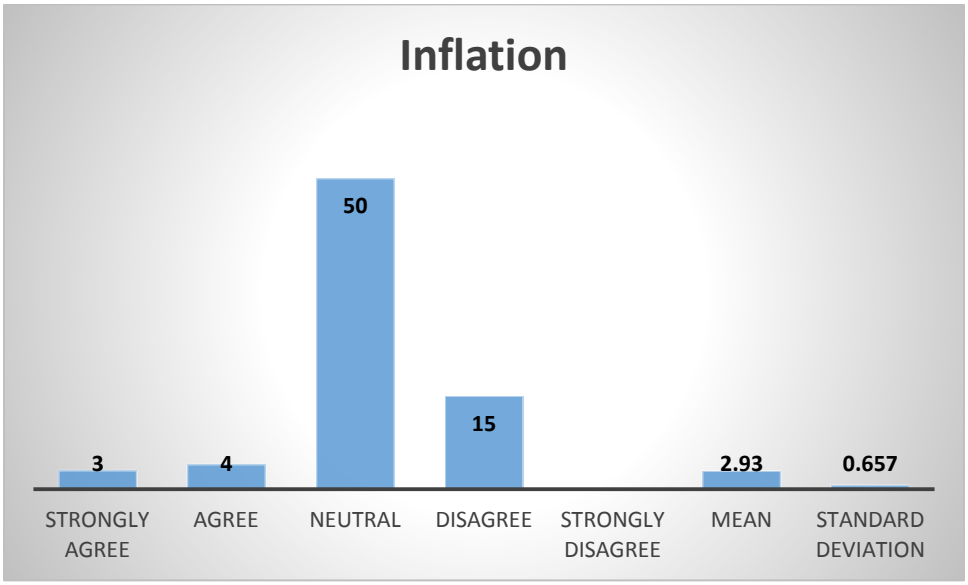
Uluyol et al. (2014) under his study of the relationship between financial leverage and return on equity of the companies with different industries has come up with the positive impact of leverage

in the construction industry. This implies that the industry has also matter whether leverage is positively or negatively affect companies' earnings. This also implies that investor have understood that for most companies, increasing leverage tends to make management more conservative, which seems to reduce the tendency to be strategically opportunistic, something that is often required to deliver revenue growth.

#### 4.2.2.5 Inflation

The question raised to investors' to address whether they are in need of knowing about the general inflation of the country or not was ''It is advisable to know the general inflation of the country before deciding to invest on it.'' The result summary of the question is shown below.

*Figure 4. 5 Inflation result of the questionnaire*




*Source: Author's analysis*

As shown above on figure 4.5, 69.4 percent of the respondents were neutral about knowing the general inflation of the country while deciding to invest on the shares of the Ethiopian insurance share companies and 20.8 percent disagreed on the value of knowing the general inflation. But 5.6 percent of the respondents were influenced by the general inflation statues while deciding to invest and only 4.2 percent of the respondents indicated that the general inflation of the country highly influence their investment decision preference.

The mean or average value of this question's response is 2.93 which is almost equal to the weight, 3, given for the neutral choice. The overall result of this variable is near to the regression result of the secondary data that leverage is not statistically significant and but has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies.

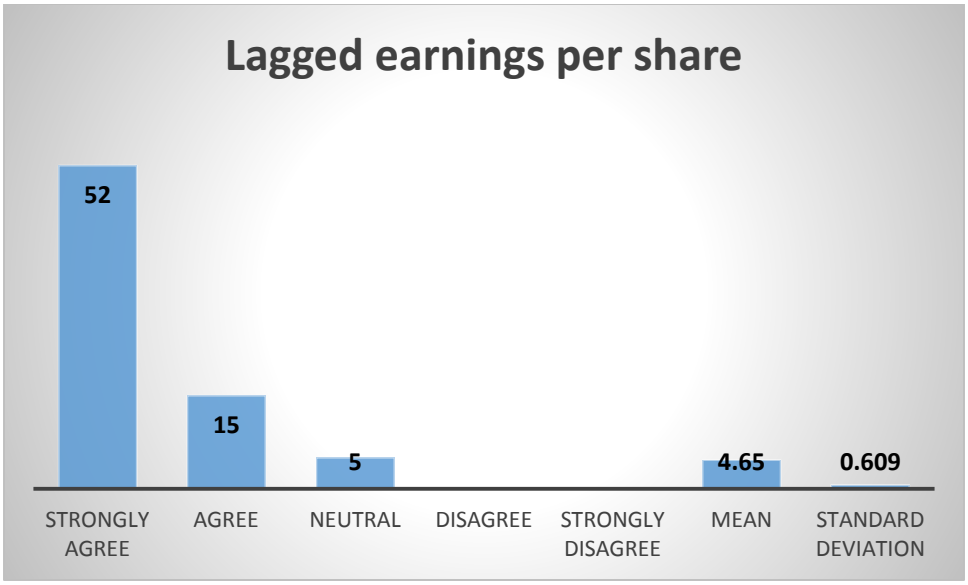
This is supported by the regression result of the secondary data that inflation is not statistically significant and has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies. The result of the previous studies showed that inflation has a negative impact on the investment preference of individual investor. Most of the earliest studies like Lintner (1975) and Bodie (1976) mainly document the negative co-variation between actual equity returns and actual inflation at the same time Fama & Schwert (1977), with some identifying assumptions, decompose inflation into expected and unexpected inflation and found both pieces to be negatively related to stock returns.

Actually the main problem with stocks and inflation is that a company's returns tend to be overstated in times of high inflation, a company may look like it's prospering, when really inflation is the reason behind the growth that will attract individual investors to invest. This might be the cause here in Ethiopia too as the inflation of Ethiopia was high especially from 2008 to 2012 which was 18 to 36%.

#### 4.2.2.6 Lagged earnings per share

The last question was trying to know whether investors want to know the previous ear earnings per share of the insurance company before deciding to invest on it or not. The result summary is show below.

*Figure 4. 6 Lagged EPS result of the questionnaire*




*Source: Author's analysis*

As shown above on figure 4.6, 72.2 percent of the respondents indicated that the value of the previous year earnings per share of the insurance company highly influence their investment decision preference and 20.8 percent of the respondent were influenced by its value while deciding to invest on the shares of insurance companies. But 6.9 percent of the respondents were indifference whether to know the previous year earnings per share of the insurance company before deciding to invest on it or not.

The mean or average value of this question's response is 4.65 which is nearer to the weight, 5, given for the strongly agreed choice. The overall result of this variable is seemingly the same with the regression result of the secondary data that previous year's earnings is highly statistically significant and has a positive relationship with the earnings per share, the proxy to measure investors' interest, of the insurance companies.

In general investors consider a wide range of information before purchasing shares or investing in shares. They most frequently review or ask questions about a fund's fees and expenses and its historical performance. Investors prefer to know the company's financial information before deciding to buy the share of Ethiopian insurance company shares like profitability, firm's size and previous year earnings per share.

### 4.2.3. Social Factors

Dimitrios (2007) conducted a study on investors behavior in the and found that individual investors rely more on newspapers/media and noise in the market when making their investment decisions, while professional investors rely more on fundamental and technical analysis and less on portfolio analysis. Market participants are exposed to a constant flow of information, ranging from quantitative financial data to financial news in the media, and socially exchanged opinions and recommendations. Processing all this information is a difficult task. Variables that are loaded heavily on this factor include coverage in the financial and general press, recent stock index returns, information obtained from internet, current economic indicators and recommendations by investment advisory services (Francis and Soffer,1997).

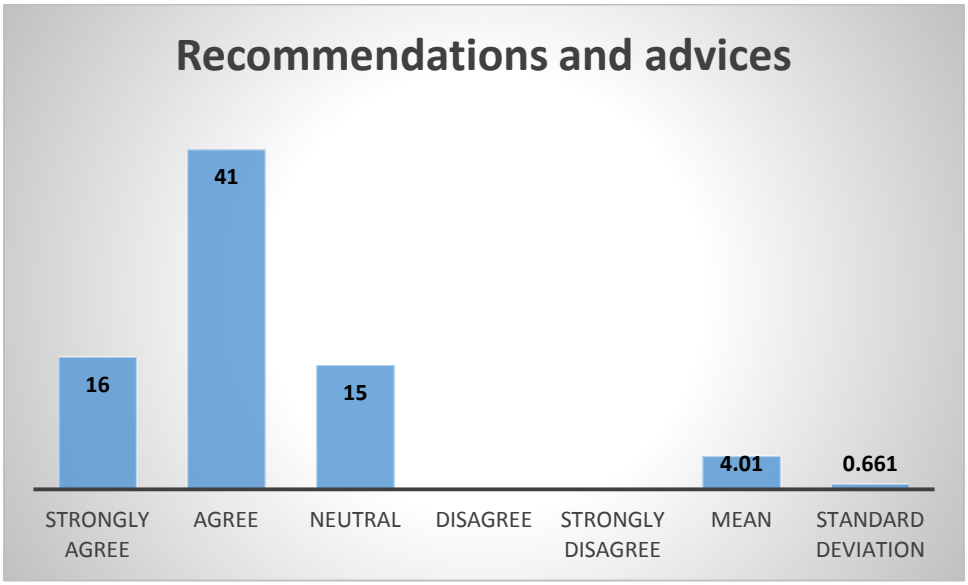
The social independent variables used and captured in the questionnaire for this research are:

- Recommendations and advices given by sales agent
- Information broadcasted by Medias, like newspaper and television
- Accessibility and its understandability of operational information
- The Insurance industry peacefulness
- Unattractiveness of other investment opportunities
- Reputed management i.e. integrity, competence and good public image

The analysis of the result of the question for the above social factors is shown below:

### 4.2.3.1 Recommendations and advices by sales agents

*Figure 4. 7 Recommendations and advices result of questionnaire*



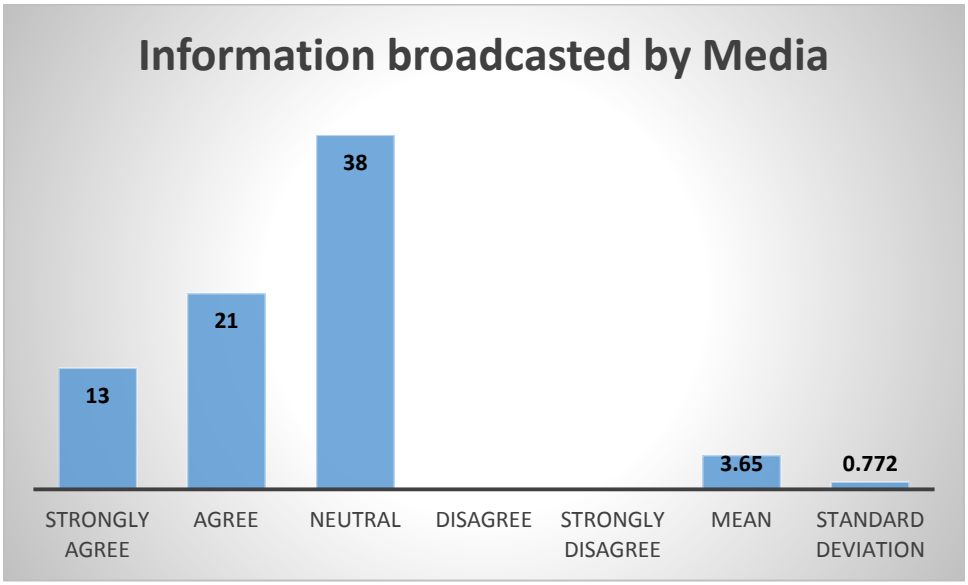

*Source: Author's analysis*

As shown above on figure 4.7**,** 22.2 percent of the respondent shareholders indicated that the recommendations and advices given by the sales agents of the insurance companies highly influenced them while deciding to invest on the shares of insurance companies and 56.9 percent of the respondents were influenced by the recommendations and advices given by sales agent before deciding to invest. But this recommendations and advice has no any influence on the rest of the respondents which are 20.8 percent.

The mean or average value of this question's response is 4.01 which is the weight, 4, given for the agreed choice with standardization of 0.661. This shows that the recommendations and advices by the insurances' sales agents influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies.

### 4.2.3.2 Information broadcasted by media

*Figure 4. 8 Information broadcasted by Media questionnaire result*



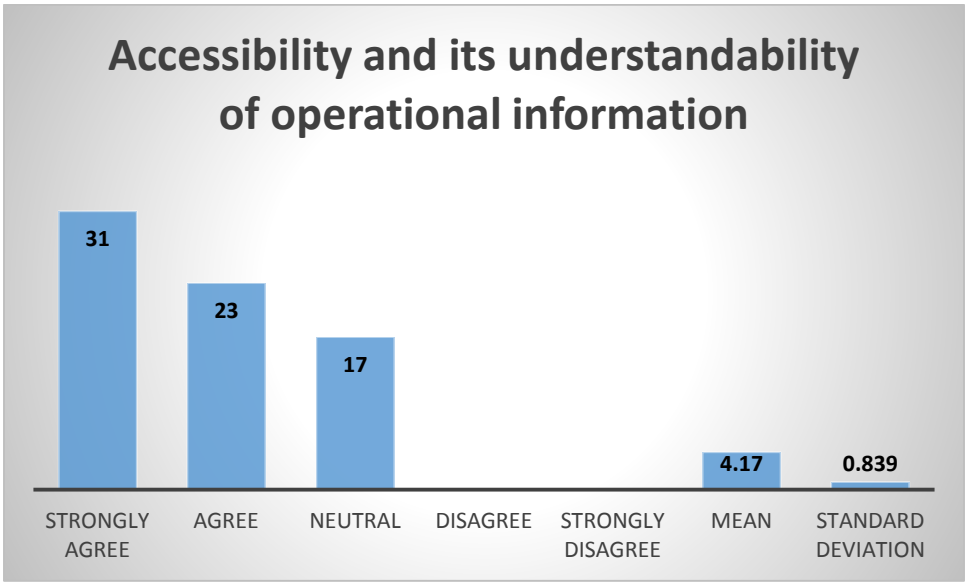

*Source: Author's analysis*

As shown above on figure 4.8, 18.1 percent of the respondent indicated that information broadcasted by Medias like newspaper and television highly influenced them while deciding to invest on the shares of insurance companies and 29.2 percent of the respondents agree that they were influenced by the information broadcasted by Medias while deciding to invest on the shares of insurance companies. But this information has no any influence on the majority of the respondents which are 52.8 percent.

The mean or average value of this question's response is 3.65 which is near to the weight, 4, given for the agreed choice with standardization of 0.772. This shows that information broadcasted by Medias, like newspaper and television fairly influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.3.3 Accessibility and its understandability of operational information

*Figure4. 9 Accessibility and its understandability of operational information result of questionnaire*




*Source: Author's analysis*

As shown above on figure 4.9, 43.1 percent of the respondent indicated that the accessibility and its understandability of operational information of the insurance companies' highly influenced them while deciding to invest on the shares of insurance companies and 31.9 percent of the respondents agree that they had been influenced by the accessibility and its understandability of operational information of the insurance company to invest on it. But this information has no any influence on some of the respondents which are 23.6 percent. In the contrary one respondent disagree about the capability of the accessibility and its understandability of operational information to influence the investors' preference decision.

The mean or average value of this question's response is 4.17 which is almost equal to the weight, 4, given for the agreed choice with standardization of 0.839. This shows that the accessibility and its understandability of operational information of the insurance companies influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies.

### 4.2.3.4 Industrial peacefulness

*Figure 4. 10 Industrial peacefulness questionnaire result*

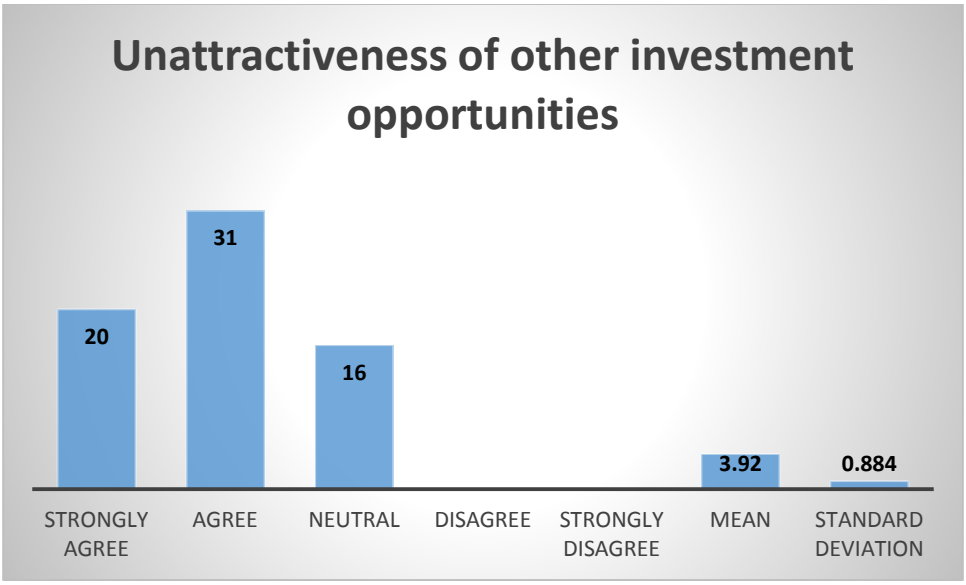

*Source: Author's analysis*

As shown above on figure 4.10, 31.9 percent of the respondent shareholders indicated that the insurance industrial peacefulness i.e. exemplary relationship between shareholders, management & board and management and employees highly influence them while deciding to invest on the shares of insurance companies and 29.2 percent of the respondents had been influenced by the insurance industrial peacefulness. The insurance industrial peacefulness has no any influence on the majority of the respondents which are 36.1 percent. But two respondents disagree about the power of the insurance industrial peacefulness to influence the investors' preference decision.

The mean or average value of this question's response is 3.90 which is almost equal to the weight, 4, given for the agreed choice with standardization of 0.891. This shows that the insurance industrial peacefulness i.e. exemplary relationship between shareholders, management & board and management and employees influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.3.5 Unattractiveness of other investment opportunities

*Figure 4. 11 Unattractiveness of other investment opportunities*



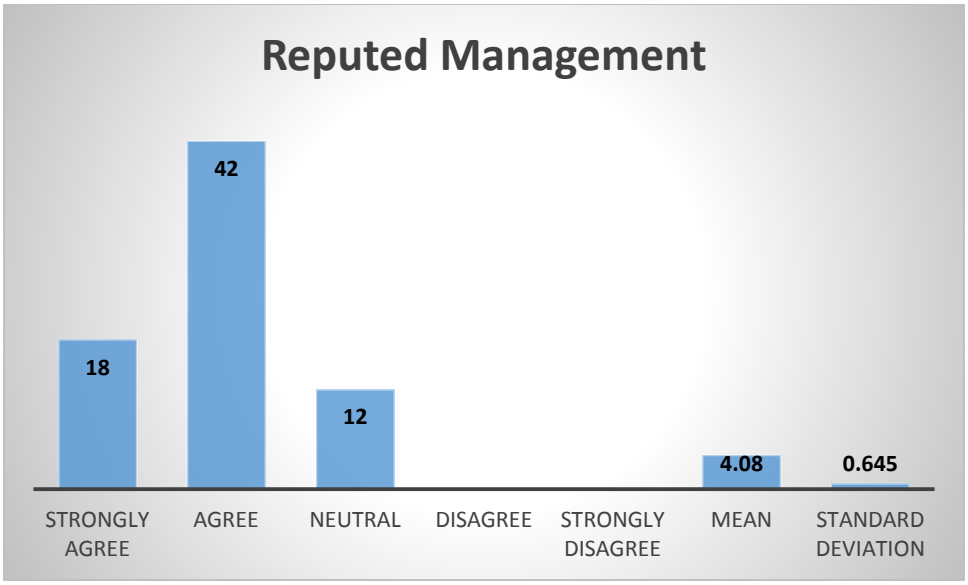

*Source: Author's analysis*

As shown above on figure 4.11, 27.8 percent of the respondents indicated that the unattractiveness of other investment opportunities highly influence them while deciding to invest on the shares of insurance companies and the majority which is 43.1 percent of the respondents agree that they had been influenced by the unattractiveness of other investment opportunities and as a result they preferred to invest on the shares insurance companies. The unattractiveness of other investment opportunities has no any influence on some of the respondents which are 22.2 percent. But 6.9 percent of the respondents disagree about the power of the unattractiveness of other investment opportunities to influence the investors' preference decision.

The mean or average value of this question's response is 3.92 which is near to the weight, 4, given for the agreed choice with standardization of 0.884. This shows that the unattractiveness of other investment opportunities influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.3.6 Reputed Management

*Figure 4. 12 Reputed Management*




*Source: Author's analysis*

As shown above on figure 4.12, 25 percent of the respondent indicated that the availability of reputed management i.e. integrity, competence and good public image in the insurance company highly influenced them while deciding to invest on the shares of insurance and the majority which is 58.3 percent of the respondents agree that they had been influenced by the reputed management i.e. integrity, competence and good public image in the insurance in which they have invested on their shares. But this has no any influence on the rest of the respondents which are 16.7 percent. The mean or average value of this question's response is 4.08 which is equal to the weight, 4, given for the agreed choice with standardization of 0.645. This shows that the availability of reputed management i.e. integrity, competence and good public image in the insurance company influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies.

### 4.2.4. Cultural Factors

It is believed that investment decisions are a function of several factors such as market characteristics and individual risk profiles, in addition to accounting information. The disposition error shows that regardless of accounting information, investors are influenced by sunk cost considerations and asymmetrical risk preferences for gain/loss situations. The research findings by Nagy & Obenberger (1994) which examined factors influencing investor behavior, suggested that classical wealth – maximization criteria are important to investors, even though investors employ diverse criteria when choosing stocks.

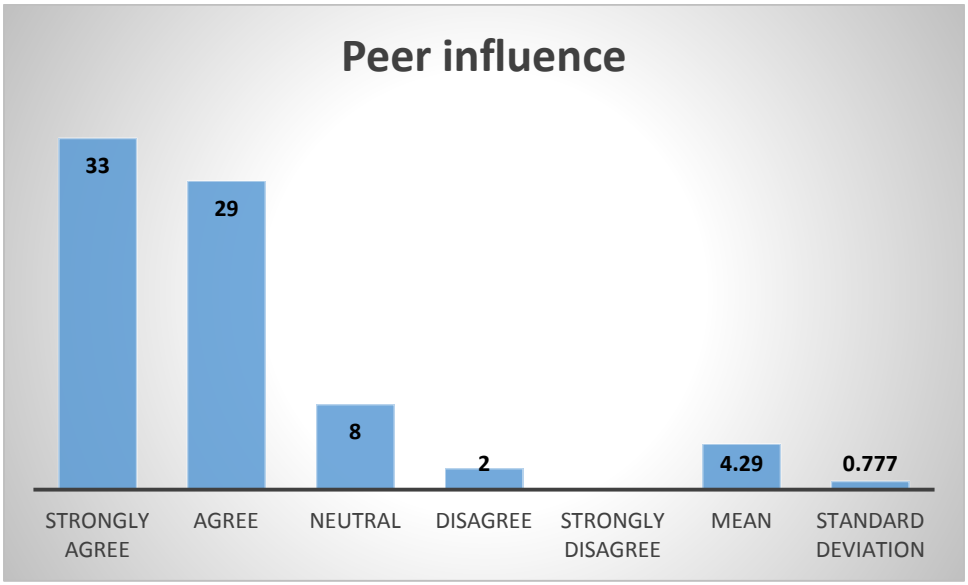
The cultural independent variables used and captured in the questionnaire for this research are:

- Peer influence
- The insider information
- Knowledge or awareness of the industry
- Sensitization programs

The analysis of the result of the questionnaire is as follows:

#### 4.2.4.1 Peer influence

*Figure 4. 13 Peer influence result of the questionnaire*



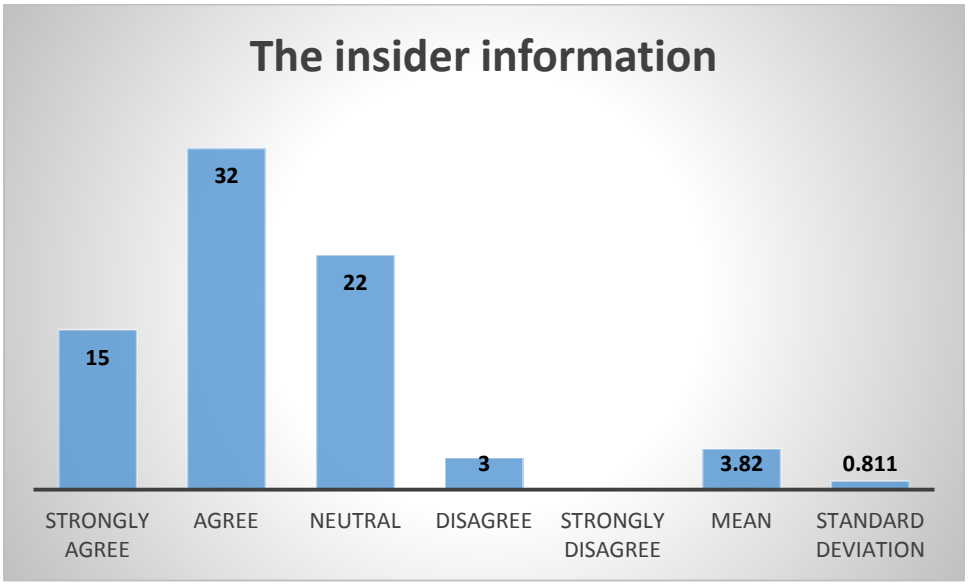

*Source: Author's analysis*

As shown above on figure 4.13**,** 45.8 percent of the respondents indicated that the peer influence towards them highly influenced them while deciding to invest on the shares of insurance companies and 40.3 percent of the respondents agree that they had been influenced by the peer pressure in order to prefer the insurance company for their investment. The peer pressure has no any influence on some of the respondents which are 11.1 percent. But 2.8 percent of the respondents disagree about the power of peer pressure to influence the investors' preference decision.

The mean or average value of this question's response is 4.29 which is near to the weight, 4, given for the agreed choice with standardization of 0.777. This shows that the Peer influence towards individual investors influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.4.2 The insider information

*Figure 4. 14 The insider information result of the questionnaire*




*Source: Author's analysis*

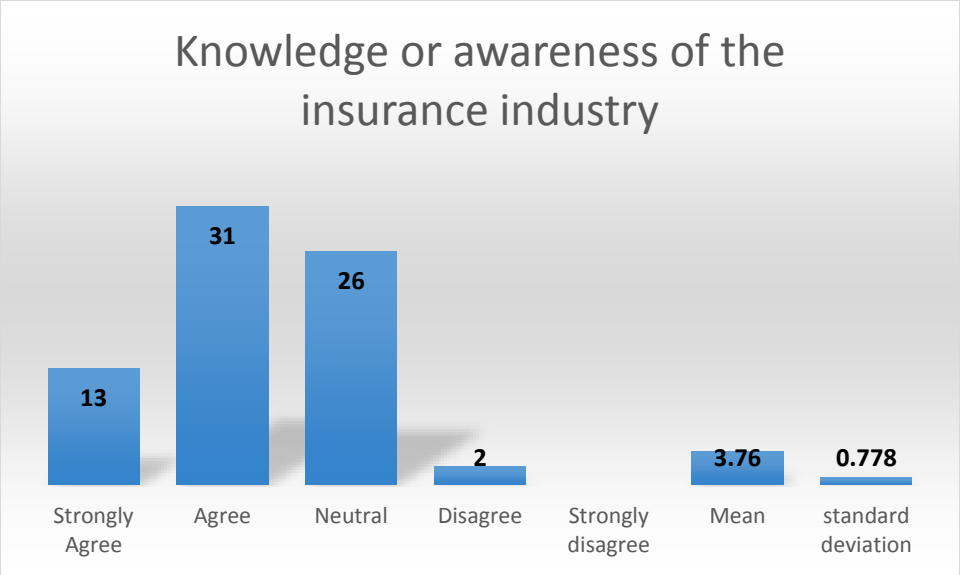
As shown above on figure 4.14, 20.8 percent of the respondents indicated that the insider information they have got from the company employees due to their familiarity highly influenced them while deciding to invest on the shares of insurance companies and 44.4 percent of the respondents agree that they had been motivated to invest on the shares of insurance company because of the information obtained from the company employees. This information has no any

influence on most of the respondents which are 30.6 percent of the respondents. But 4.2 percent of the respondents disagree about the power of the insider information to influence the investors' preference decision.

The mean or average value of this question's response is 3.82 which is near to the weight, 4, given for the agreed choice with standardization of 0.811. This shows that the insider information obtained from the company employees due to their familiarity influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies.

#### 4.2.4.3 Knowledge or awareness of the insurance industry

*Figure 4. 15 Knowledge or awareness of the insurance industry result of the questionnaire*



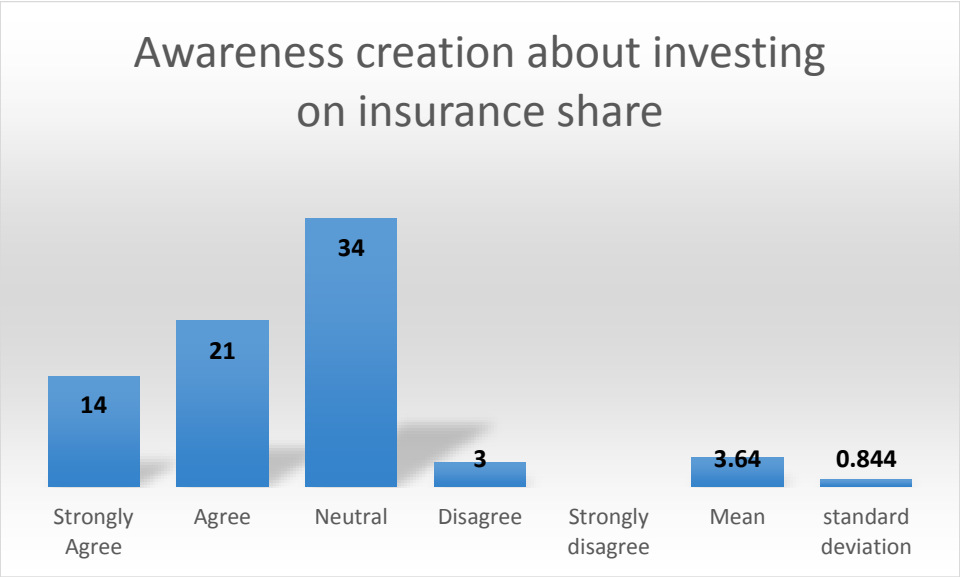

*Source: Author's analysis*

As shown above on figure 4.15, 18.1 percent of the respondents indicated that their knowledge or awareness of the insurance industry highly influenced them while deciding to invest on the shares of insurance companies and 43.1 percent of the respondents agree that they had been motivated because of their knowledge or awareness of the insurance industry in order to prefer the insurance company for their investment decision. The knowledge or awareness of the insurance industry has no any influence on most of the respondents which are 36.1. But 2.8 percent of the respondents disagree about the power of knowing or having awareness of the insurance industry to influence their investment decision preference.

The mean or average value of this question's response is 3.76 which is near to the weight, 4, given for the agreed choice with standardization of 0.778. This shows that individual investors knowledge or awareness of the insurance industry fairly influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.4.4 Awareness creation about investing on insurance share

*Figure 4. 16 Awareness creation questionnaire result*




*Source: Author's analysis*

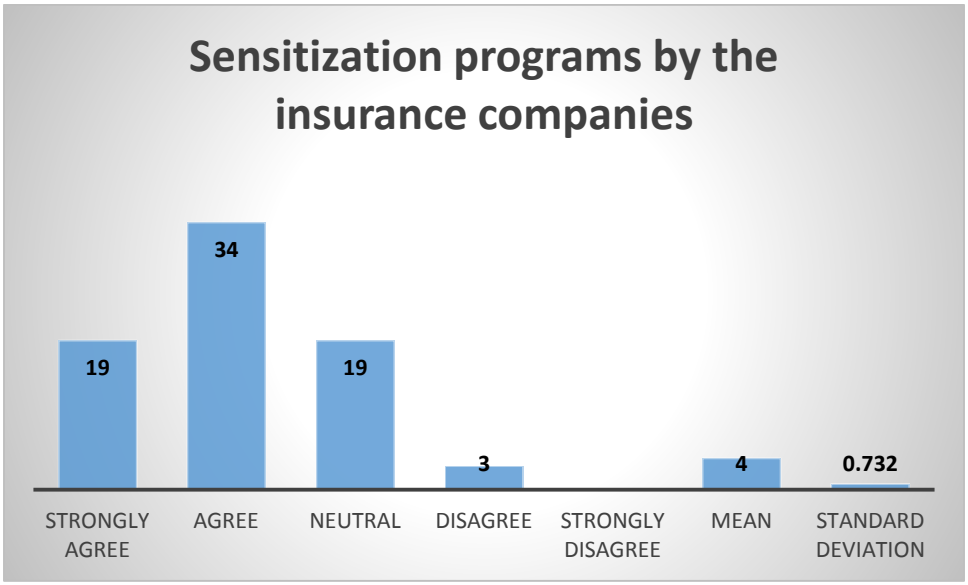
As shown above on figure 4.16, 19.4 percent of the respondents indicated that the awareness creation undertaken by the insurance companies themselves about the advantages of investing on insurance shares highly influenced them while deciding to invest on the shares of insurance companies and 29.2 percent of the respondents agree that they had been motivated to invest on insurance company shares because of the awareness creation undertaken by the insurance companies in order to prefer the insurance company in which to invest. The awareness creation activities undertaken by the insurance companies has no any influence on the majority of the respondents which are 47.2 percent. But 4.2 percent of the respondents disagree about the capability of the awareness created by the insurance companies to influence the investors' preference decision.

The mean or average value of this question's response is 3.64 which is near to the weight, 4, given for the agreed choice with standardization of 0.844. This shows that the awareness creation

undertaken by the insurance companies fairly influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.4.5 Sensitization programs by the insurance companies

*Figure 4. 17 Sensitization programs*




*Source: Author's analysis*

As shown above on figure 4.17, 26.4 percent of the respondents indicated that sensitization programs undertaken by the insurance companies, like leaflets, bill boards & others highly influenced them while deciding to invest on the shares of insurance companies and 47.2 percent of the respondents agree that they had been motivated to invest on the insurance company because of information they have acquired during the sensitization programs undertaken by the insurance companies. But the sensitization programs undertaken by the insurance companies has no any influence on some of the respondents which are 26.4 percent.

The mean or average value of this question's response is 4 which is equal to the weight, 4, given for the agreed choice with standardization of 0.732. This shows that the individual investors understanding of the insurance company from sensitization programs undertaken by the insurance companies influence their preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.5. Psychological Factors

Hussein (2007) found that expected corporate earnings, get rich quickly, stock marketability, past performance of the firm's stock, government holdings, and the creation of the organized financial markets are the investors considerations. Market participant's behavior is dependent upon own psychology, for instance Hede(2012) suggests that 'herd behavior' is the most observed in financial markets. Yet many other factors also influence the individual behavior. Equity selection by an individual investor might reflect perceptual beliefs, than rational expectations of Efficient Market Hypothesis.

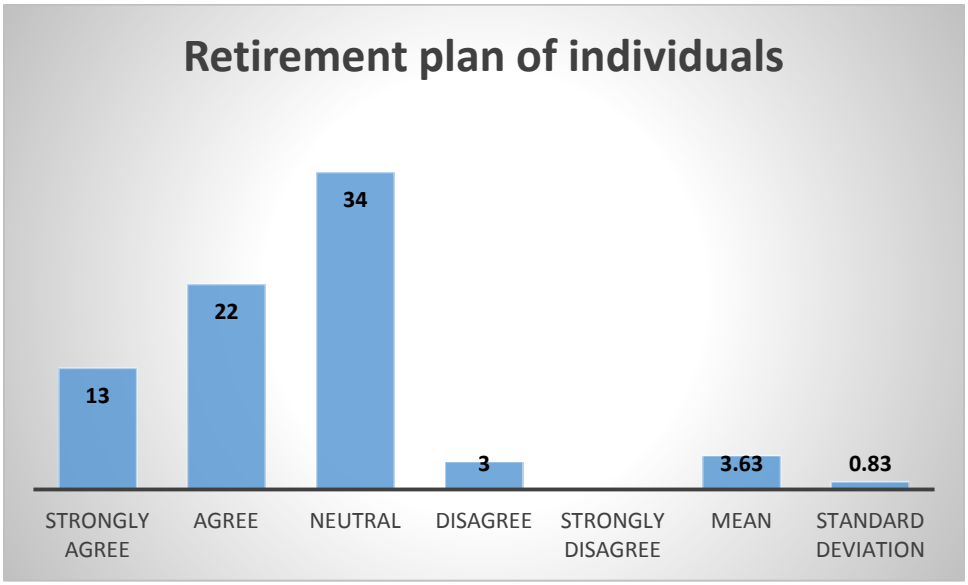
The psychological independent variables used and captured in the questionnaire for this research are:

- Retirement plan of individuals
- Individual perception of the financial benefit of the existing shareholders
- Liquidity(marketability) characteristics of the shares
- Stability of the insurance industry
- Excess fund on hand

The analysis of the result of the questionnaire of each variables is as follows:

#### 4.2.5.1 Retirement plan of individuals

*Figure 4. 18 Retirement plan of individuals*



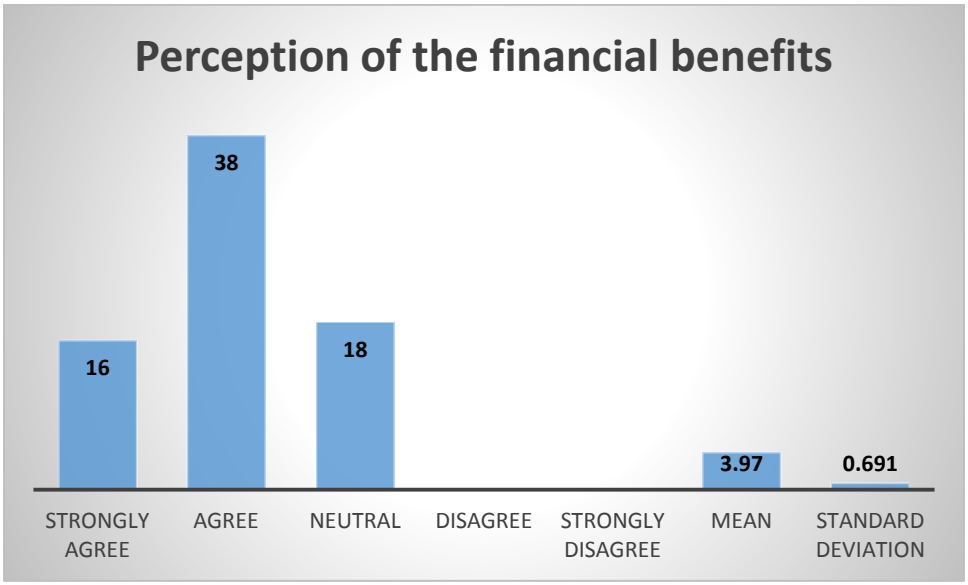

*Source: Author's analysis*

As shown above on figure 4.18, 18.1 percent of the respondents indicated that the consideration of the investment as part of their personal retirement plan highly influenced them while deciding to invest on the shares of insurance companies and 30.6 percent of the respondents agree that they had been initiated to invest on share of insurance companies as part of their personal retirement plan. The consideration of the investment as part of their personal retirement plan has no any influence on the majority of the respondents which are 47.2 percent. But 4.2 percent of the respondents disagree about the influence of considering the investment as part of their personal retirement plan.

The mean or average value of this question's response is 3.63 which is near to the weight, 4, given for the agreed choice with standardization of 0.830. This shows that individual investors' personal retirement plan fairly influence their preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.5.2 Perception of the financial benefits of existing shareholders

*Figure 4. 19 Perception of the financial benefits questionnaire result*




*Source: Author's analysis*

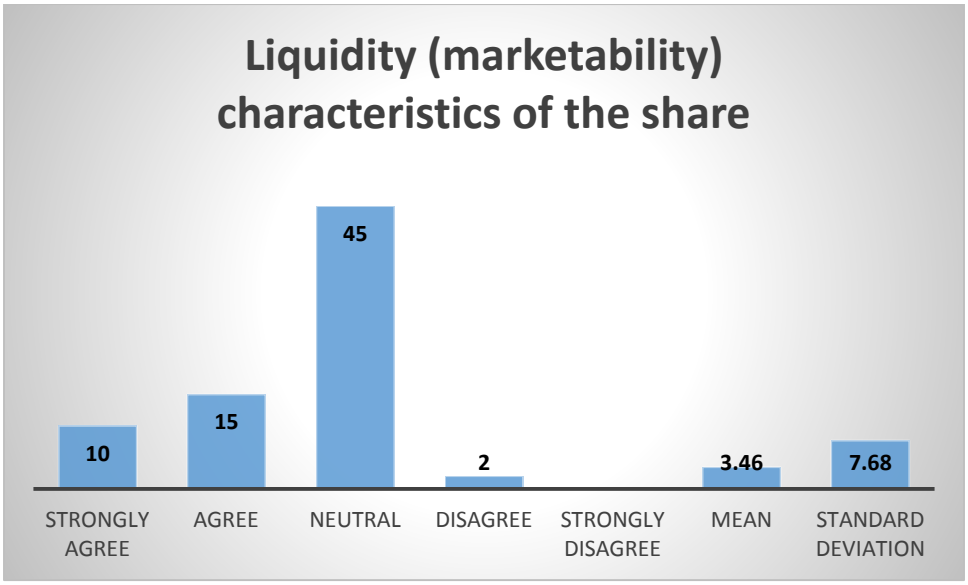
As shown above on figure 4.19, 22.2 percent of the respondents indicated that their perception of the financial benefits that existing shareholders are getting highly influenced them while deciding to invest on the shares of insurance companies and 52.8 percent of the respondents agree that they had been motivated to invest on share of insurance companies because of their perception that existing shareholders are getting a good financial benefit from the investment on the shares of

insurance companies. But this perception has no any influence on the rest of the respondents which are 25 percent.

The mean or average value of this question's response is 3.97 which is near to the weight, 4, given for the agreed choice with standardization of 0.690. This shows that the individual investors' perception of the financial benefits that existing shareholders are getting influence their preference of investment decisions on the shares of Ethiopian insurance share companies.

### 5.2.5.3 Liquidity (marketability) characteristics of the share

*Figure 4. 20 Liquidity (marketability) characteristics of the share questionnaire result*




*Source: Author's analysis*

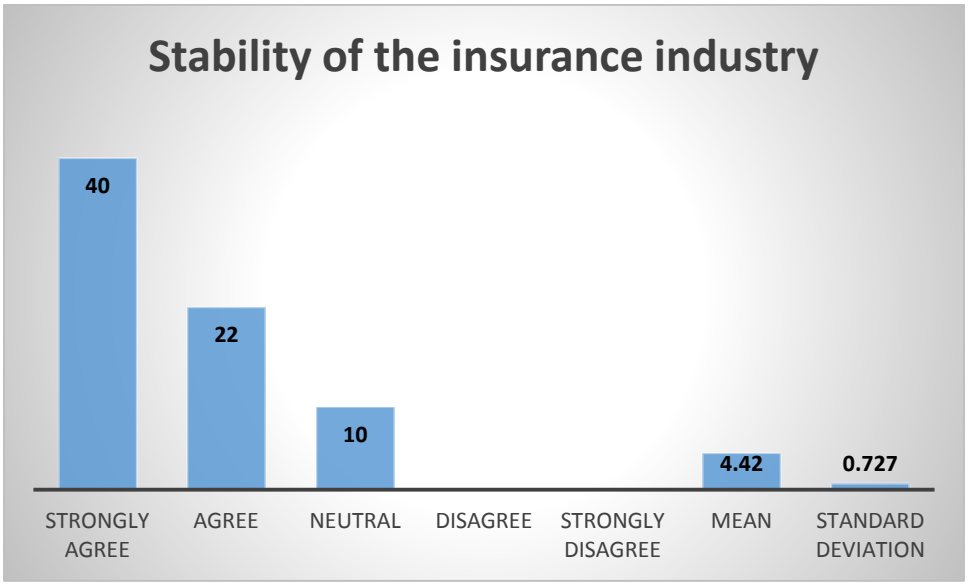
As shown above on figure 4.20, Only 13.9 percent of the respondents indicated that the liquidity (marketability) characteristics of the insurance's share highly influenced them while deciding to invest on the shares of insurance companies and 20.8 percent of the respondents agree that they had been motivated to invest on share of insurance companies because of the liquidity (marketability) characteristics of the insurance's share. Liquidity (marketability) characteristics of the share has no any influence on the majority of the respondents which are 62.5 percent. But 2.8 percent of the respondents disagree about the power of the liquidity (marketability) characteristics of the insurance's share to influence the investors' preference decision.

The mean or average value of this question's response is 3.46 which is near to the weight, 3, given for the neutral choice with standardization of 0.768. This shows that the liquidity (marketability)

characteristics of the insurance's share fairly influence the individual investors' preference of investment decisions on the shares of Ethiopian insurance share companies

### 4.2.5.4 Stability of the insurance industry

*Figure 4. 21 Stability of the insurance industry questionnaire result*



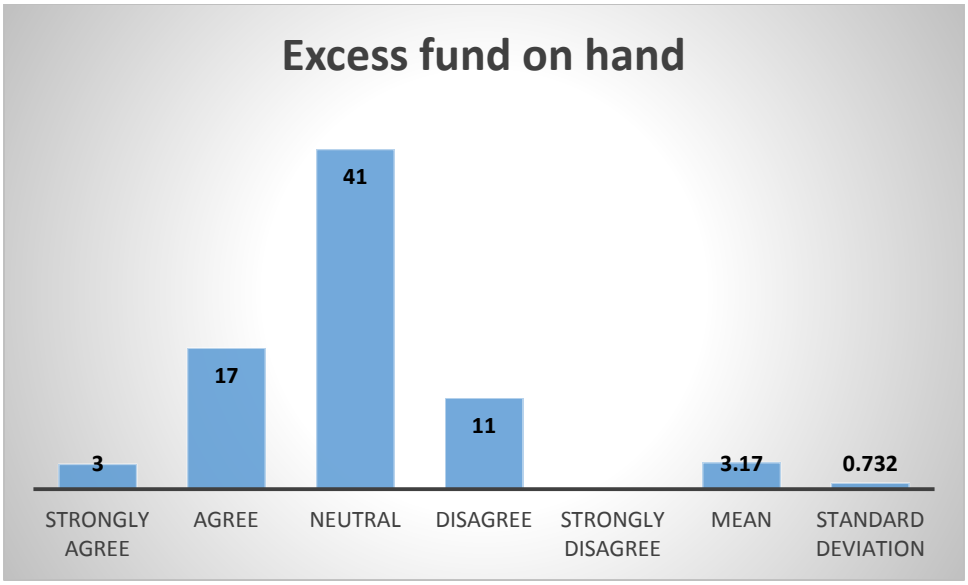

*Source: Author's analysis*

As shown above on figure 4.21, 55.6 percent of the respondents indicated that their perception that the insurance industry is stable as it is regulated and supervised by national bank of Ethiopia highly influenced them while deciding to invest on the shares of insurance companies and 30.6 percent of the respondents agree that they had been motivated to invest on share of insurance companies because of their perception that the insurance industry is stable. But the perception the insurance industry stability has no any influence on the rest of the respondents which are only 13.9 percent.

The mean or average value of this question's response is 4.42 which is near to the weight, 4, given for the agreed choice with standardization of 0.727. This shows that the individual investors' perception that the insurance industry is stable as it is regulated and supervised by national bank of Ethiopia influence their preference of investment decisions on the shares of Ethiopian insurance share companies.

### 4.2.5.5 Excess fund on hand

*Figure 4. 22 Excess fund on hand questionnaire result*




*Source: Author's analysis*

As shown above on figure 4.22, only 4.2 percent of the respondents indicated that the availability of excess fund on their hand highly influenced them while deciding to invest on the shares of insurance companies and 23.6 percent of the respondents agree that they had decided to invest on share of insurance companies because of the availability of excess fund on their hands. The mere availability of excess fund on hands has no any influence on the majority of the respondents which are 56.9 percent. But 15.3 percent of the respondents disagree about the power of the availability of excess fund on their hands to influence their investment decision preference.

The mean or average value of this question's response is 3.17 which is near to the weight, 4, given for the agreed choice with standardization of 0.732. This shows that the availability of excess fund on individual investors hand has no influence on their preference of investment decisions on the shares of Ethiopian insurance share companies

## 4.3. PART TWO: ANALYSIS OF THE SECONDARY DATA

### 4.3.1 Technique used to analyze the secondary panel data

According to Brooks (2008), there are broadly two classes of panel estimator approaches that can be employed in financial research: fixed effects models and random effects models. The simplest

types of fixed effects models allow the intercept in the regression model to differ cross-sectionally but not over time, while all of the slope estimates are fixed both cross-sectionally and over time.

With panel/cross sectional time series data individuals are observed at several points in time. The most commonly estimating models are probably fixed effects and random effects models. If we think there are no omitted variables – or if we believe that the omitted variables are uncorrelated with the explanatory variables that are in the model – then a random effects model is probably best but if there are omitted variables, and these variables are correlated with the variables in the model, then fixed effects models may provide a means for controlling for omitted variable bias. With fixed effects models, we do not estimate the effects of variables whose values do not change across time. Rather, we control for them or "partial them out" and random effects models will estimate the effects of time-invariant variables, but the estimates may be biased because we are not controlling for omitted variables (Williams, 2015).

To decide between fixed or random effects, a Hausman test, where the null hypothesis is that the preferred model is random effects vs. the alternative the fixed effects is applied. It basically tests whether the unique errors (ui) are correlated with the regressors or not.

*Table 4.1 Correlated Random Effects - Hausman Test*

Test cross-section random effects

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|---|---|---|---|
| Cross-section random | 12.117734 | 5 | 0.0165 |

*Source: Author's own computation from EVIEW*

The null hypothesis of the test is '' the random effect method is the preferred regression method''. But as per tables 4.1, the p-value for the test is 0.0165, which is less than .05 that indicates the null hypothesis should be rejected, hence the fixed effect method is preferable.

### 4.3.2 Testing of Classical linear regression model assumptions

Most statistical tests rely upon certain assumptions about the variables used in the analysis. When these assumptions are not met the results may not be trustworthy, resulting in a Type I or Type II error, or over- or under-estimation of significance or effect size(s). Type I error is the incorrect rejection of a true null hypothesis (a "false positive"), while a type II error is the failure to reject a false null hypothesis (a "false negative").

As Pedhazur (1997) noted, "knowledge and understanding of the situations when violations of assumptions lead to serious biases, and when they are of little consequence, are essential to meaningful data analysis". However, Osborne et al. (2001) observed, few articles report having tested assumptions of the statistical tests they rely on for drawing their conclusions. This creates a situation where we have a rich literature in education and social science, but we are forced to call into question the validity of many of these results, conclusions, and assertions, as we have no idea whether the assumptions of the statistical tests were met.

As per Brooks (2008), there are five assumptions that are made relating to the classical linear regression model (CLRM) which are required to show that the estimation technique, ordinary least squares (OLS), had a number of desirable properties, and also so that hypothesis tests regarding the coefficient estimates could validly be conducted. The below points are the testing of those assumptions.

#### 4.3.2.1. Assumption 1: E(ut ) = 0

The first assumption required is that the average value of the errors is zero. According to Brooks (2008), if a constant term is included in the regression equation, this assumption will never be violated. As there is a constant term in this research regression equation, this assumption is not violated.

#### 4.3.2. 2. Assumption 2: var($ut$ ) = $\sigma 2 < \infty$; homoscedasticity

This is the second assumption that the variance of the errors is constant, σ2, which is known as the assumption of homoscedasticity. If the errors do not have a constant variance, they are said to be heteroscedastic. According to Berry & Feldman (1985) and Tabachnick & Fidell (1996) slight heteroscedasticity has little effect on significance tests; however, when heteroscedasticity is marked it can lead to serious distortion of findings and seriously weaken the analysis thus increasing the possibility of a Type I error.

According to Brooks (2008) if the errors are heteroscedastic and we ignored and proceed with estimation and inference, OLS estimators will still give unbiased (and also consistent) coefficient estimates, but they are no longer BLUE, that is:

- **Estimator** - $\alpha\hat{}$ and $\beta\hat{}$ are estimators of the true value of $\alpha$ and $\beta$
- **Linear** - $\alpha\hat{}$ and $\beta\hat{}$ are linear estimators that means the formulae for $\alpha\hat{}$ and $\beta\hat{}$ are linear combinations of the random variables.
- **Unbiased** - on average, the actual values of $\alpha\hat{}$ and $\beta\hat{}$ will be equal to their true values
- **Best** - means that the OLS estimator $\beta\hat{}$ has minimum variance among the class of linear unbiased estimators;

The reason is that the error variance, $\sigma 2$, plays no part in the proof that the OLS estimator is consistent and unbiased, but $\sigma 2$ does appear in the formulae for the coefficient variances. If the errors are heteroscedastic, the formulae presented for the coefficient standard errors no longer hold. So, if OLS is still used in the presence of heteroscedasticity, the standard errors could be wrong and hence any inferences made could be misleading. In general, the OLS standard errors will be too large for the intercept when the errors are heteroscedastic.

The White's test to heteroscedasticity is used. As it is shown in table 3.3, all the F-statistic, Obs∗R-squared and Scaled explained SS versions of the test statistic give the same conclusion that there is no evidence for the presence of heteroscedasticity, since the *p*-values are considerably in excess of 0.05 shows that the null hypothesis of homoscedasticity cannot be rejected. This implies that the residuals have constant variance which is desirable.

*Table 4.2 Heteroskedasticity Test*

Heteroskedasticity Test: White

| | | | |
|---|---|---|---|
| F-statistic | 2.010658 | Prob. F(5,82) | 0.0857 |
| Obs*R-squared | 9.610622 | Prob. Chi-Square(5) | 0.0871 |
| Scaled explained SS | 10.45910 | Prob. Chi-Square(5) | 0.0632 |

*Source: Author's own computation from EVIEW*

#### 4.3.2.3. Assumption 3: cov($ui$ , $uj$ ) = 0 for $i \_= j$; *Autocorrelation*

This assumption is made of the CLRM's disturbance terms is that the covariance between the error terms over time (or cross-sectionally, for that type of data) is zero. In other words, it is assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are 'auto correlated' or that they are 'serially correlated'.

The classical linear panel data model assumes serially uncorrelated disturbances. As argued by Baltagi (2008), this assumption is likely to be violated as the dynamic effect of shocks to the dependent variable is often distributed over several time periods. In such cases, serial correlation leads to inefficient estimates and biased standard errors.

A number of tests for serial error correlation in panel data models have been proposed in literature. Bhargava et al. (1982) generalized the Durbin-Watson statistic to the fixed-effects panel model. Furthermore, a generalization to test for autocorrelation up to some given lag order and a test statistic that is robust against time dependent heteroskedasticity are proposed.

According to Brooks (2008), as the population disturbances cannot be observed, the tests for autocorrelation are conducted on the residuals, $\hat{u}$ but before proceeding to see how formal tests for autocorrelation are formulated, the concept of the lagged value of a variable needs to be defined. The lagged value of a variable (which may be $yt$ , $xt$, or $ut$ ) is simply the value that the variable took during a previous period(s). Note that when one-period lags or first differences of a variable are constructed, the first observation is lost. It is also possible to produce two-period lags, three-period lags, and so on.

The Durbin-Watson test statistic tests the null hypothesis that the residuals from an ordinary least-squares regression are not auto correlated against the alternative that the residuals follow an autoregressive process. The Durbin-Watson statistic ranges in value from 0 to 4. A value near 2 indicates non-autocorrelation; a value toward 0 indicates positive autocorrelation; a value toward 4 indicates negative autocorrelation. Because of the dependence of any computed Durbin-Watson value on the associated data matrix, exact critical values of the Durbin-Watson statistic are not tabulated for all possible cases. Instead, Durbin and Watson established upper and lower bounds for the critical values.

Savin & White (1977) present tables for sample sizes ranging from 6 to 200 and for 1 to 20 regressors for models in which an intercept is included. Accordingly, the test is done for the null hypothesis of zero autocorrelation in the residuals against the alternative that the residuals are positively auto correlated at the 5% level of significance. As per Savin and White tables for sample size of 96, the closest number to this research's sample size(88), with 5 regressors, the printed bounds are Durbin lower = 1.557 and Durbin upper = 1.778. Therefore according to the result of the regression, the Durbin-Watson test statistic value on table 4.6 is1.779 which is greater than the tabulated higher bound, then we should not reject the null hypothesis of non- auto correlated errors.

According to Brooks (2008), DW is a test only of whether consecutive errors are related to one another. So, not only can the DW test not be applied if a certain set of circumstances are not fulfilled, there will also be many forms of residual autocorrelation that DW cannot detect which can be capture by Breusch–Godfrey test. The Breusch-Godfrey test is conducted in EVIEW by employing two lags in the test, the results is given in table 4.3.

*Table 4.3 Breusch-Godfrey Serial Correlation LM Test*

| | | | |
|---|---|---|---|
| F-statistic | 0.810128 | Prob. F(2,80) | 0.4484 |
| Obs*R-squared | 1.746900 | Prob. Chi-Square(2) | 0.4175 |

*Source: Author's own computation from EVIEW*

In the table above, Eview offers two versions of the test – an *F*-version and a $\chi 2$ version. As the p-value of both versions is greater than 0.05, the conclusion from both versions of the test in this case is that the null hypothesis of no autocorrelation should not be rejected which agrees with the *DW* test result above, this means that residuals (u) are not serially correlated which is desirable.

#### 4.3.2.4. Assumption 4: the disturbances are normally distributed

An assessment of the normality of data is a prerequisite for many statistical tests because normal data is an underlying assumption in parametric testing. Normality tests are used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. As stated in Brooks (2008), one of the most commonly applied tests for normality is the Bera-Jarque (BJ) test. Jarque-Bera test is

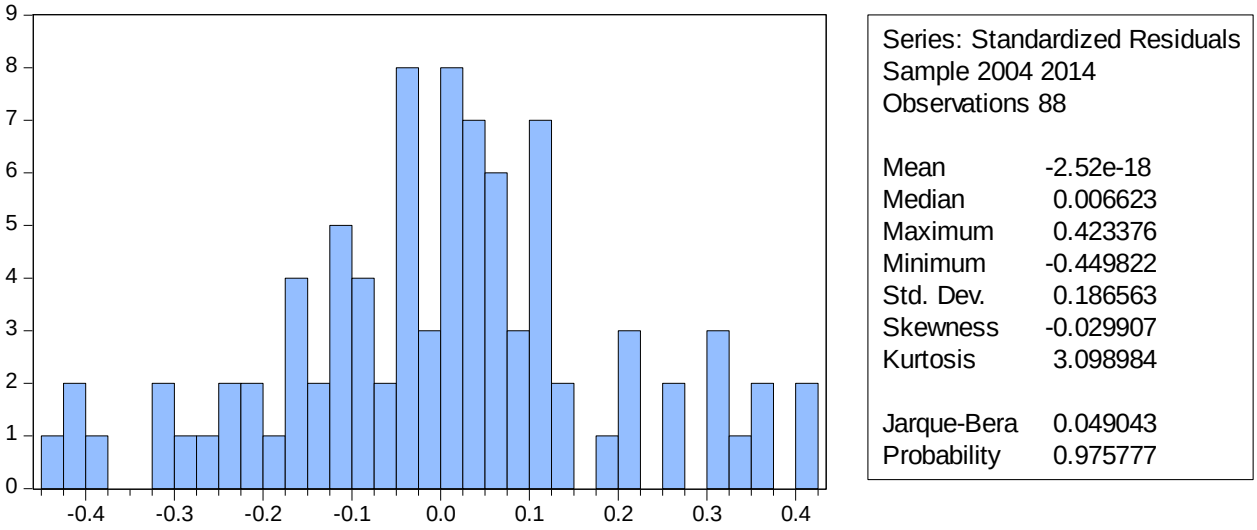
a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution. BJ uses the property of a normally distributed random variable that the entire distribution is characterized by the first two moments, the mean and the variance.

The standardized third and fourth moments of a distribution are known as its Skewness and kurtosis. Skewness measures the extent to which a distribution is not symmetric about its mean value and kurtosis measures how fat the tails of the distributions are. A normal distribution is not skewed and is defined to have a coefficient of kurtosis of 3. It is possible to define a coefficient of excess kurtosis, equal to the coefficient of kurtosis minus 3; a normal distribution will thus have a coefficient of excess kurtosis of zero.

Skewness gives a measure of how symmetric the observations are about the mean. For a normal distribution the skewness is 0. A distribution skewed to the right has positive skewness and a distribution skewed to the left has negative skewness. Kurtosis gives a measure of the thickness in the tails of a probability density function. For a normal distribution the kurtosis is 3. It follows that, for a normal distribution, the excess kurtosis is zero (0). A fat-tailed or thick-tailed distribution has a value for kurtosis that exceeds 3. That is, excess kurtosis is positive. This is called leptokurtosis

The Jarque-Bera test for normality is presented with a null joint hypothesis of the skewness being zero and the excess kurtosis being zero. In addition to this the p-value given at the bottom of the normality test screen should be greater than 0.05 to not reject the null of normality at the 5% significance level.

*Figure 4.23 Test of Normality*




*Source: Author's own computation from EVIEW*

As shown in figure 4.1, the Kurtosis and skewness are almost 3 and zero respectively and p-value of 0.97 is greater than 0.05 which means we don't reject the joint null hypothesis that skewness being zero and the excess kurtosis being zero. In addition The Jarque-Bera value of 0.049043 and the corresponding p value is 0.975777 indicate a desirable distribution of the residuals. Since p value is greater than 5 percent the null hypothesis of normal distribution cannot be rejected meaning that population residual is normally distributed which fulfills the assumption of a good regression line.

### 4.3.2.5. Multicollinearity Test

Multicollinearity is a high degree of correlation (linear dependency) among several independent variables. It commonly occurs when a large number of independent variables are incorporated in a regression model. It is because some of them may measure the same concepts or phenomena.

According to Brooks (2008), Multicollinearity is an implicit assumption that is made when using the OLS estimation method is that the explanatory variables are not correlated with one another. If there is no relationship between the explanatory variables, they would be said to be orthogonal to one another. If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. 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, and this problem is known as multicollinearity. Multicollinearity occurs when two or more predictors in the model are correlated and provide redundant information about the response.

Hair et al. (2006) argued that correlation coefficient below 0.90 may not cause serious multicollinearity problem. But Malhotra (2007) lowered the value and stated that multicollinearity problems exists when the correlation coefficient among variables is greater than 0.75.

*Table 4.4 Correlation Matrix between independent variables*

| | FSLOG | INF | LEVERAGE | ROA | LAGEPSLOG |
|---|---|---|---|---|---|
| **FSLOG** | 1.000000 | 0.161752 | 0.259876 | 0.240137 | 0.571413 |
| **INF** | 0.161752 | 1.000000 | 0.224809 | -0.136197 | 0.164695 |
| **LEVERAGE** | 0.259876 | 0.224809 | 1.000000 | -0.053803 | 0.170691 |
| **ROA** | 0.240137 | -0.136197 | -0.053803 | 1.000000 | 0.489399 |
| **LAGEPSLOG** | 0.571413 | 0.164695 | 0.170691 | 0.489399 | 1.000000 |

*Source: Author's own computation from EVIEW*

The method used in this study to test the existence of multicollinearity was the Pearson correlation between the independent variables. As per table 4.4, the largest observed correlations between the independent variables is 0.5714 that is between the lagged value of the earning per share and the firm size, which is less than even 0.75 and this is relatively a small amount that it can reasonably be ignored.

### 4.3.3 Descriptive statistics

*Table 4.5 Descriptive statistics*

| | *EPS* | *INF* | *ROA* | *FS( 'million)* | *Leverage* | *Lagged EPS* |
|---|---|---|---|---|---|---|
| **Mean** | 285.28 | 0.16 | 0.06 | 206 | 1.81 | 245.40 |
| **Median** | 227.36 | 0.14 | 0.06 | 167 | 1.67 | 212.88 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Standard Deviation** | 215.34 | 0.11 | 0.05 | 157 | 0.62 | 181.67 |
| **Minimum** | 37.81 | 0.03 | 0.01 | 15 | 0.71 | 13.66 |
| **Maximum** | 1,182.38 | 0.36 | 0.45 | 644 | 3.69 | 886.93 |
| **Count** | 88 | 88 | 88 | 88 | 88 | 88 |

*Source: Author's own computation*

**Mean** (also known as average), is obtained by dividing the sum of observed values by the number of observations, *n*. Although data points fall above, below, or on the mean, it can be considered a good estimate for predicting subsequent data points. **Median** is the middle value of a set of data containing an odd number of values, or the average of the two middle values of a set of data with an even number of values. Median is especially helpful when separating data into two equal sized bins. **Standard deviation** gives an idea of how close the entire set of data is to the average or mean value. Data sets with a small standard deviation have tightly grouped, precise data. Data sets with large standard deviations have data spread out over a wide range of values.

As per the result of the descriptive statistics shown in table 4.5, the average earning per share of the sampled Ethiopian private insurances companies was ETB 285.28 per share under the period of study with a middle EPS of ETB 227.36. But when we see the standardization it is ETB 215.34 which seems high which might be due to the many number of years under the study and the size effect of the insurance among themselves. The other case might be their capital structure strategy in which some might issue shares to raise capital, which will decrease the EPS as the number of shares increase, and some my finance it by debt, which will increase the EPS as there will not be additional share to be issued. This variation is also reflected with high discrepancy between the minimum, ETB37.81 and maximum, ETB 1,182.38, earning per share. EPS value is determined by dividing profit after tax to out sanding shares.

The average general inflation of Ethiopia under the study period was 16% with a middle value of 14%. Regarding the standardization, it seem too high relative to the mean which is 11% and also reflected with the minimum 3 and maximum 36 percentage high gap. This was due to the high variation of the annual general inflation throughout the country under the period of study. For

example the general inflation in 2005 and 2010 was 3% and 6% respectively but to the contrary in 2009 and 2012 it was 36% and 34% respectively.

The average profitability (proxied by ROA), which was measured as annual profit after tax divided by total asset, is 6% with middle value of the same, this measures how profitable a company is relative to its total assets. As a rule of thumb, professionals like to see a company's ROA come in at no less than 5%, therefor the average ROA of 6% is attractive to investors. When we see the standardization, it is 11% which seems high and also supported by the minimum and maximum ROA value of 1% and 45% respectively. This variation comes from due to the different capital intensiveness of the companies as it is shown on the firm size part of the description. Capital-intensive companies, which carried a relatively large asset base, calculated their ROA based on a large number in the denominator of this ratio. Conversely, non-capital-intensive companies (with a small in fixed assets) generally favored with a relatively high ROA because of a low denominator number, less total asset.

The firm size, which is measured with total asset has an average value of ETB 206 million with a middle value of ETB 267Million. When we see the standard deviation it is ETB 157 Million which seems high due to the variation of the insurance sizes. It is also supported by the minimum and maximum size of 15 million and 644 million. The capital intensiveness has created the variation that capital intensive companies carried a relatively large asset base and conversely a non- capital intensive companies carry a small fixed assets.

The leverage, which is measured with total debt divided by total equity tests at how much capital comes in the form of debt (loans) has an average value of 1.81 debt to equity ratio with a middle value of 1.67. A high debt/equity ratio generally indicates that a company has been aggressive in financing its growth with debt. This can result in volatile earnings as a result of the additional interest expense, and if it is very high, it may increase the chances of a default or bankruptcy. Though it differs with industry, typically a debt to equity ratio greater than 2.0 indicates a risky scenario for the investor. Therefor the result shows that insurance companies are not as such with high debt. When we see the standard deviation, it is .062 which is not big as such

with the minimum and maximum debt to equity ratio of .71 and 3.67 respectively, this gab actually is due to the size effect of the insurance companies.

The average value of the lagged earning per share is ETB245.4 with middle vale of ETB212.88 which is lower than only by 16% from the following year's earnings per share. This also show the positive relationship of the earning per share with the following year earnings. The standard deviation is ETB 181.67 per share with the minimum and maximum earnings of ETB 13.66 and 886.933 respectively which is also high due to the size effect as it is explained above in the descriptive statistics discussion.

### 4.3.4. Regression Result of the financial factors

#### 4.3.4.1. Introduction

The study used a panel data consisting of annual time series data over the period from 2003 to 2014 and cross-section data pertaining to eight privately owned insurance share companies operating in Ethiopia.

According to Benoit (2011) logarithmically transforming variables in a regression model is a very common way to handle situations where a non-linear relationship exists between the independent and dependent variables. Using the logarithm of one or more variables instead of the un-logged form makes the effective relationship non-linear, while still preserving the linear model. Accordingly, in this research the dependent variable, Earning per share, and two independent variables, firm size and inflation, are in the natural logarithm form.

Table 4.6, regression result of the data, reveals that the independent variables of firm size, profitability (measured by return on asset) and lagged value of the earning per share have statistically significant relationship with earning per share at one percent significant level with the expected positive sign. On the other hand inflation and leverage are outside being statistically significant at 5% level.

*Table 4.6 Regression Result- with Fixed Effect*

**Dependent Variable: EPSLOG**

Method: Panel Least Squares

Date: 05/12/15 Time: 15:14

Sample (adjusted): 2004 2014

Periods included: 11

Cross-sections included: 8

Total panel (balanced) observations: 88

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -1.460388 | 0.916092 | -1.594150 | 0.1151 |
| FSLOG* | 0.172703 | 0.059700 | 2.892860 | 0.0050 |
| LOG(INF) | 0.048436 | 0.031728 | 1.526614 | 0.1311 |
| LEVERAGE | 0.061856 | 0.062274 | 0.993274 | 0.3238 |
| ROA* | 1.421241 | 0.431594 | 3.293009 | 0.0015 |
| LAGEPSLOG* | 0.667871 | 0.056521 | 11.81624 | 0.0000 |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|---|---|---|---|
| R-squared | 0.939114 | Mean dependent var | 5.390358 |
| Adjusted R-squared | 0.929373 | S.D. dependent var | 0.756078 |
| S.E. of regression | 0.200934 | Akaike info criterion | -0.236075 |
| Sum squared resid | 3.028084 | Schwarz criterion | 0.129895 |
| Log likelihood | 23.38730 | Hannan-Quinn criter. | -0.088635 |
| F-statistic | 96.40138 | Durbin-Watson stat | 1.778620 |
| Prob(F-statistic) | 0.000000 | | |

*-Significant at 1% significance level.

*Source: Author's own computation from EVIEW*

#### 4.3.4.2. Goodness of fit test

As per the result of the regression analysis for the selected companies, depicted in table 4.6, R2(R-square) which is often referred to as the coefficient of determination of the variables is 0.939. The R-Squared which is also a measure of the overall fitness of the model indicates that the model is capable of explaining about 93% of the variability in the share prices of firms. This means that the model explains about 93 % of the systematic variation in the dependent variable. That is only 7% of the variations in movement of earning per share of the sampled companies are accounted for by other factors not captured by the model. This result is complimented by the adjusted R2 of about 92%, which in essence is the proportion of total variance that is explained by the model.

The **F -statistics** is the test statistic used to decide whether the model as a whole has statistically significant predictive capability, that is, whether the regression is big enough, considering the number of variables needed to achieve it. **F** is the ratio of the model mean square to the error mean square under the null hypothesis that the model has no predictive capability-that is, that all population regression coefficients are 0 simultaneously. The null hypothesis is rejected if the F ratio is large and p-value is less than 0.05. But when we see the regression on table 4.6, *F*-statistic takes a value of 96.4 for the null hypothesis that all of the slope parameters are jointly zero with *p*-value of zero, to the six digit, attached to the test statistic shows that this the null hypothesis should be rejected that means all the dependent variables cannot be zero.

The below points are to review the statistical significance and relationship of each independent variables with the dependent variable.

#### 4.3.4.3. Firm size

In instances where both the dependent variable and independent variable(s) are log-transformed variables, the interpretation is a combination of the linear-log and log-linear. In other words, the interpretation is given as an expected percentage change in Y when X increases by some percentage. Such relationships, where both Y and X are log-transformed, are commonly referred to as elastic in econometrics, and the coefficient of log X is referred to as an elasticity.

By citing Weiner and Mahoney (1981), Ravenscraft & Scherer, (1987), Akbas & Karaduman (2012) also argued that larger firms are more stable and mature and they can generate greater sales

because of the greater production capacity and finally, those firms have the chance of capital cost savings with the economies of scale and increase earnings which will help to attract investors.

As same with previous researches, in this research the firm size is highly statistically significant and has a positive relationship with the earning per share. As it is indicated in table 4.2, a one percent increase in firms' total asset value will result in an increment of earning per share by 0.17 percent holding other variables constant, which will result in attracting investors to invest on companies having a large amount of asset.

#### 4.3.4.4. Inflation

It is a sustained increase in the general level of prices for goods and services and measured as a logarithm of an annual general inflation, log is used because the variation is high during the study period. Most of the previous studies mainly document the negative co-variation between actual equity returns and actual inflation e.g. Lintner (1975), Bodie (1976). With some identifying assumptions, Fama & Schwert (1977) decompose inflation into expected and unexpected inflation and found both pieces to be negatively related to stock returns.

When we see the result of the regression, the inflation, which is 0.1311, is not statistically significant but has a positive relationship with the earning per share, which is against the result of previous researches but it is statistically insignificant variable. Actually the main problem with stocks and inflation is that a company's returns tend to be overstated in times of high inflation, a company may look like it's prospering, when really inflation is the reason behind the growth. This might be the cause here as the inflation of Ethiopia was high especially from 2008 to 2012 which was 18 to 36%. The impact of inflation on our portfolio depends on the type of securities we hold. If we invest only in stocks, worrying about inflation shouldn't keep us up at night. Over the long run, a company's revenue and earnings should increase at the same pace as inflation.

#### 4.3.4.5. Leverage

It is measured as debt to equity ratio, indicates the proportion of a firm's assets that is financed by debt as against equity. Raising capital via debt involves periodic interest payments on part of firms; increased use of debt by a firm would therefore result in higher interest payments and this

lowers the earnings available to equity shareholders. Investors therefore generally prefer firms with lower debt. This way a negative relation between earning per share and leverage is expected. The pecking order theory states that firms prefer to raise funds through internal finance, and if external finance is required, that they prefer debt to equity issues.

This preference or pecking order results from the fact that investors may interpret security issues in particular as a signal that managers think the firm is currently overvalued by the market; therefore, investors will reduce their valuation of the firm in response to news of a stock issue. If the pecking order theory is correct, we would expect firms with the highest debt ratios to be those with low profits, because internal finance is less available to these firms.

But Uluyol et al. (2014) under his study of the relationship between financial leverage and return on Equity of the companies with different industries has come up with the positive impact of leverage in the construction industry. This implies that the industry has also matter whether leverage is positively or negatively affect companies' earnings.

When we see the result of this research regression on table 4.6 leverage, which is 0.3238, is not statistically significant but has a positive relationship with earning per share. It is in line with the research result of Uluyol et al. (2014).

This also implies that investor have understood that for most companies, increasing leverage tends to make management more conservative, which seems to reduce the tendency to be strategically opportunistic, something that is often required to deliver revenue growth.

#### 4.3.4.6. Profitability

The profitability of the insurance companies is measured by the return on asset (ROA), by dividing profit after tax to total asset. ROA is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings.

Mukherjee and Naka (1995) argued that market forces such as demand and supply affect stock price movements and if a company is performing well in the area of profitability, investors will be interested to invest in such company and this will influence the share price of the company.

It is a log-linear variable in this model and the literal interpretation of the estimated coefficient βˆ is that a one-unit increase in X will produce an expected increase in log Y of βˆ units. In terms of Y itself, this means that the expected value of Y is multiplied by e β.

As per the result of the regression on table 4.6, Profitability is highly statistically significance and has a positive relationship with the earning per. Numerically, whenever there is a one birr increase in profitability there will be a 142% increment in the earning per share, holding other variables constant. The amount seems high but in the actual circumstance there is a possibly to happen as there is no as such issuance of shares by the companies after they fulfil their capital requirement. Those insurances which were operating for some long time usually issue a shares whenever there is a regulation announcing capital structure change otherwise not but profit increases per year in an increasing rate irrespective of the increment of the number of shares.

This is also supported by the prospect theory (Loss-Aversion Theory) which states that people's perceptions of gain and loss are skewed. That is, people are more afraid of a loss than they are encouraged by a gain. If people are given a choice of two different prospects, they will pick the one that they think has less chance of ending in a loss, rather than the one that offers the most gains.

#### 4.3.4.7 Lag value of earning per share

This is a one year lagged value of the dependent variable. The concept of lag is that, the independent variable Yt is a function of Yt_1, an independent variable Xt, and an auto-regressive error term ut. The reason for adding this lagged value is that the reactions of economic agents, such as consumers or investors, to changes in their environment resulting, for example, from changes in prices or incomes, are never instantaneous and assumed to be lagged for one year.
The changes are likely to be distributed over time; and positions of equilibrium, if they are ever attained, are likely to be approached gradually. The easiest way of setting an econometric equation in motion is to introduce an element of feedback. This is done by including one or more lagged values of the dependent variable on the right-hand side of the equation to stand in the company of the other explanatory variables.

Usually investors ask the previous years' earning per share of companies to know whether that company has been profitable or not and then they will invest if they got it attractive which will result in affecting the earning per share of the next year.

As it is depicted in table 4.6, the one year period lagged of earning per share is highly statistically significant and has a positive relationship with the earning per share. It shows that whenever there is a one percent increase in the previous year's earnings per share there will be a 0.67 percent increment in the following year's earnings per share holding other variables constant.

### 4.3.4.8. Comparison of financial factors result with the expectation

*Table 4.7 Comparison of the variables Result with the Expectation*

| **Independent variables** | **Expected Relationship with EPS** | **Actual Relationships with EPS** | **Statistical Significance** |
|---|---|---|---|
| Firm size(FS) | + | + | Significant |
| Inflation(INF) | -/+ | + | Insignificant |
| Leverage | + | + | Insignificant |
| Profitability(ROA) | + | + | Significant |
| Lagged EPS | + | + | Significant |

# CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

## 5.1. Introduction

This study has been undertaken to identify the fundamental factors that influence investors' investment preference while investing on Ethiopian insurance share companies. The study was conducted in two parts using primary and secondary data. The primary data used both financial and non-financial factors. The financial factors were profitability, leverage, firm size, inflation, one year lagged of earning per share and dividend payment history while the non-financial part contains the social, cultural and psychological factors by incorporating different question in each category.

In the secondary data, the study deployed a financial panel data consisting of annual time series data over the period from 2003 to 2014 and cross-section data pertaining to eight (8) Ethiopian insurance share companies. The fixed effects model has been employed as a panel data techniques to investigate the objectives. The study has chosen profitability (measured by return on asset), leverage (debt to equity), firm size (total asset), general inflation of Ethiopia and one year lagged value of earning per share as possible determinant factors of investors' investment preference and employed the ordinary least squares method to evaluate the significance and impact of the independent variables on the dependent variable which is earning per share of the companies.

## 5.2. Conclusion

**Financial Factors:** The empirical results of both the primary data, which was gathered through questionnaire from shareholders from eight insurance companies and the regression output from the secondary data for the period from 2003 to 2014 revealed that:

- As per the result of the analysis, profitability, firm size, one year lagged earning per share and dividend payment history are highly statistically significant with a positive impact on the investment decision preference of individual investors. This shows that investors are highly interested to know these financial performances of the companies before deciding to invest on a specific insurance company.
- The remaining financial variables considered in the study namely general inflation and leverage are not statistically significant variables but have a positive impact on the investment decision preference of individual investors.

The results indicated above are consistent with the findings of the previous studies like Gordon (1963),Walter (1963) and Akbas & Karaduman (2012) except inflation which has no clear impact

on investment decision preference of individual investors. As per the bottom line theory, one may use technical strategies while others rely on fundamentals, and still others may resort to using a dartboard. Many other factors influence the price of investments, ranging from emotional attachment, rumors and the price of the security to good old supply and demand. Clearly, not all market participants are sophisticated, informed and act only on available information.

**Social Factor**: As per the result and analysis of the questionnaire response:-

- Some of the individual investors, which is more than 43%, were highly influenced by the accessibility & understandability of insurances' operational information and the insurance industry peacefulness while deciding to invest on the shares of Ethiopian insurance companies.
- Majority of individual investors, which is more than 57%, were influenced by the recommendation & advice by sales agents, unattractiveness of other investment opportunities and the availability of reputed management while deciding to invest on the shares of Ethiopian insurance companies.
- But majority of the individual investors, , which is around 53%, were not influenced at all by the information broadcasted by medias while deciding to invest on the shares of Ethiopian insurance companies.

**Cultural Factor:** As per the result and analysis of the questionnaire response:

- Some of the individual investors, which is more than 46%, were highly influenced by the peer pressures from their colleagues while deciding to invest on the shares of Ethiopian insurance companies.
- Majority of individual investors, which is more than 45%, were influenced by having the insider information, knowledge or awareness of the insurance industry and sensitization program by the insurance companies while deciding to invest on the shares of Ethiopian insurance companies.
- But some of the individual investors, which is around 47%, were not influenced at all by awareness created about investing on insurance shares while deciding to invest on the shares of Ethiopian insurance companies

**Psychological Perceptions:** As per the result and analysis of the questionnaire response:

- Majority of the individual investors, which is more than 56%, were highly influenced by the stability of the insurance industry while deciding to invest on the shares of Ethiopian insurance companies.
- Individual investors, which is more than 53%, were influenced by their perception of the financial benefit of the existing shareholders while investing on the shares of Ethiopian insurance companies.
- Individual investors, which is more than 47%, were not influenced at all by their retirement plan, liquidity(marketability) characteristics of the insurance's shares and the availability of excess cash on hand while investing on the shares of Ethiopian insurance companies

The result indicated that insurance companies which are more profitable, big size in terms of total asset, higher earnings per share in the previous year, pay higher dividend to shareholders, work more on the social, cultural and psychological factors will attract investors to invest on their shares. But leverage, the general inflation of the country, information broadcasted by Medias, individual retirement plan, awareness creation on the advantage of investment and excess hash on the hands of individual investors are not as such important factors that influence the investors' investment preference towards investing on the share of Ethiopian insurance share companies.

All these shows that the study of financial and non-financial factors prove to be beneficial and highly interested to be known by investors to invest on the shares of Ethiopian insurance share company, as these factors possess a strong explanatory power and hence can be used to make accurate future forecasts of earning per share.

## 5.3. Recommendation and policy implication

According to the rational expectation theory, the players in an economy will act in a way that conforms to what can logically be expected in the future. That is, a person will invest, spend, etc. according to what he or she rationally believes will happen in the future. By doing so, that person creates a self-fulfilling forecast that helps bring about the future event.

Therefor individual investors need to look at the valuation relative to comparable companies based on multiple factors including financial factors of profitability, firm size with regard to total asset, previous period earning per share and also the need to consider the different non-financial factor s

of social, culture and psychological perceptions before deciding to invest in any insurance share company.

With regard to insurance share companies, those listed and registered insurance share companies in Ethiopia should endeavor to make their firm attractive to individual investors who prefer to invest on share as a hedge for longer periods of investment. For this regard therefore, firms should invest in projects that are long term and viable for long term returns to investors that will maximize the profitability and total asset of the firm by balancing the firm's leverage as these are the most determinant financial factor that investors want to know before their decision to invest.

Those listed and registered insurance share companies in Ethiopia should also work on the social, cultural and psychological perceptions like keep on getting individual investors through their sales agents, work on the information broadcasted by Medias, trying to make accessible their operational information, wok on employees to share information with investors and their colleagues, increase the knowledge and awareness of the individual investors about the insurance industry through sensitization programs and try to get individual investors through their existing shareholders as well.

Finally, a possible extension of this study needs to be carried out to consider the impact of other macroeconomic variables such as GDP or money supply and other non- financial factors like management efficiency, human capital and other non- financial factor which were not included in the analysis of this study.

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# Appendix

## Appendix 1: Heteroskedasticity Test: White

| | | | |
|---|---|---|---|
| F-statistic | 2.010658 | Prob. F(5,82) | 0.0857 |
| Obs*R-squared | 9.610622 | Prob. Chi-Square(5) | 0.0871 |
| Scaled explained SS | 10.45910 | Prob. Chi-Square(5) | 0.0632 |

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 05/14/15 Time: 09:31

Sample: 2 96

Included observations: 88

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.139728 | 0.086920 | 1.607550 | 0.1118 |
| FSLOG^2 | -0.000188 | 0.000280 | -0.674151 | 0.5021 |
| (LOG(INF))^2 | -0.000578 | 0.002280 | -0.253681 | 0.8004 |
| LEVERAGE^2 | 0.006797 | 0.003017 | 2.252671 | 0.0270 |
| ROA^2 | 0.405568 | 0.279201 | 1.452603 | 0.1502 |
| LAGEPSLOG^2 | -0.001956 | 0.001158 | -1.688657 | 0.0951 |

| | | | |
|---|---|---|---|
| R-squared | 0.109212 | Mean dependent var | 0.043646 |
| Adjusted R-squared | 0.054895 | S.D. dependent var | 0.069499 |
| S.E. of regression | 0.067565 | Akaike info criterion | -2.485716 |
| Sum squared resid | 0.374329 | Schwarz criterion | -2.316807 |
| Log likelihood | 115.3715 | Hannan-Quinn criter. | -2.417667 |
| F-statistic | 2.010658 | Durbin-Watson stat | 1.757997 |
| Prob(F-statistic) | 0.085662 | | |

## Appendix 2: Breusch-Godfrey Serial Correlation LM Test

| | | | |
|---|---|---|---|
| F-statistic | 0.810128 | Prob. F(2,80) | 0.4484 |
| Obs*R-squared | 1.746900 | Prob. Chi-Square(2) | 0.4175 |

Test Equation:

Dependent Variable: RESID

Method: Least Squares

Date: 05/14/15 Time: 09:31

Sample: 2 96

Included observations: 88

Presample and interior missing value lagged residuals set to zero.

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -0.073052 | 0.560746 | -0.130276 | 0.8967 |
| FSLOG | 0.008391 | 0.034521 | 0.243057 | 0.8086 |
| LOG(INF) | 0.000994 | 0.033552 | 0.029622 | 0.9764 |
| LEVERAGE | -0.000515 | 0.040147 | -0.012816 | 0.9898 |
| ROA | 0.005785 | 0.430787 | 0.013430 | 0.9893 |
| LAGEPSLOG | -0.015829 | 0.043449 | -0.364309 | 0.7166 |
| RESID(-1) | 0.160290 | 0.120504 | 1.330157 | 0.1872 |
| RESID(-2) | -0.003551 | 0.121744 | -0.029169 | 0.9768 |

| | | | |
|---|---|---|---|
| R-squared | 0.019851 | Mean dependent var | -1.39E-16 |
| Adjusted R-squared | -0.065912 | S.D. dependent var | 0.210113 |
| S.E. of regression | 0.216927 | Akaike info criterion | -0.132003 |
| Sum squared resid | 3.764590 | Schwarz criterion | 0.093210 |
| Log likelihood | 13.80811 | Hannan-Quinn criter. | -0.041270 |
| F-statistic | 0.231465 | Durbin-Watson stat | 1.889097 |
| Prob(F-statistic) | 0.976509 | | |

## Appendix 3: List of insurance with date of establishment

| S.No. | Insurance company name | Year of establishment | Is the insurance selected as Sample? | No. of shareholders |
|---|---|---|---|---|
| 1 | Ethiopian Insurance corporation | 1975 | | |
| 2 | Awash Insurance Company | 1994 | yes | 741 |
| 3 | National Insurance Company of Ethiopia(NIC) | 1994 | yes | 33 |
| 4 | Africa Insurance Company | 1994 | yes | 1,000 |
| 5 | Nile Insurance Company | 1995 | yes | 120 |
| 6 | Nyala insurance company | 1995 | yes | 48 |
| 7 | Global Insurance Company | 1997 | yes | 135 |
| 8 | United Insurance Company | 1997 | yes | 318 |
| 9 | NIB Insurance Company | 2002 | yes | 879 |
| 10 | Lion Insurance Company | 2007 | | |
| 11 | Ethio-life and General Insurance Company | 2008 | | |
| 12 | Oromia Insurance Company | 2009 | | |
| 13 | Abay Insurance Company | 2010 | | |
| 14 | Berhan Insurance Company | 2011 | | |
| 15 | Bunna Insurance Company | 2011 | | |
| 16 | Tsehay Insurance Company | 2012 | | |
| 17 | Lucy Insurance Company | 2012 | | |

Source: NBE Website

## Appendix 4: Questionnaire to shareholders

Questions regarding Determinants of Individual Investors' preference to invest on the Shares of Ethiopian Insurance Share Companies; after IPO.

***Kindly put a tick (√) mark in the space provided according to your opinion***.

| Questions | Strongly Agree 5 | Agree 4 | Neutral 3 | Disagree 2 | Strongly Disagree 1 |
|---|---|---|---|---|---|
| **1. Financial Factors** | | | | | |
| 1.1. The historical dividend that has been declared or paid to the existing shareholders influence individual investors preference to invest on shares of insurance companies | | | | | |
| 1.2. Investors want to know the **profitability** of the insurance company before deciding to invest on it | | | | | |
| 1.3. It is important to know the **firm size, measured as the total asset of the company,** of the insurance company before deciding to invest on it | | | | | |
| 1.4. Investors are interested to know the **leverage, measured as debt to equity ratio,** of the insurance company before deciding to invest on it | | | | | |
| 1.5. It is advisable to know the general inflation of the country before deciding to invest on it | | | | | |
| 1.6. Investors want to know the **previous year earnings per share** of the insurance company before deciding to invest on it. | | | | | |
| **2. Social Factors** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 2.1. Recommendations and advices given by sales agent influences the investment decision of individual investors. | | | | | |
| 2.2. Information broadcasted by medias, like newspaper and television, influences the investment decision of individual investors | | | | | |
| 2.3. Accessibility and its understandability of operational information influences individuals investing preference to invest on shares. | | | | | |
| 2.4. The industrial peacefulness i.e. exemplary relationship between:<br>- shareholders<br>- management and board<br>- management and employees<br>influences the investment decision of individual investor to invest on insurance shares | | | | | |
| 2.5. Unattractiveness of other investment opportunities motivated me to invest on insurance shares. | | | | | |
| 2.6. Reputed management i.e. integrity, competence and good public image influences individual investors preference | | | | | |
| **3.Cultural Factors** | | | | | |
| 3.1. Peer influence affects the individual investors' investment preference. | | | | | |
| 3.2 The insider information due to familiarity with the company employees attract me to invest on shares of insurance | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 3.3 Knowledge or awareness of the insurance industry influences individual investors to invest on shares of insurance | | | | | |
| 3.4 The awareness creation about investing on insurance shares by the insurance companies influence the individual investors' preference. | | | | | |
| 3.5. Sensitization programs by the insurance companies, like leaflets, bill boards and others, influenced individual investors to invest on shares of insurance | | | | | |
| **4. Psychological Factors** | | | | | |
| 4.1. Retirement plan of individuals influence the investment preference of individuals to invest on shares of insurance | | | | | |
| 4.2. Perception of the financial benefits of the existing shareholders influence the investment preference of individual investors. | | | | | |
| 4.3. Liquidity (marketability) characteristics of the share influence the investment preference of individual investors to invest on shares of insurance companies. | | | | | |
| 4.4. Stability of the insurance industry due to the regulatory and supervision by national bank of Ethiopia influences the individual investors prefer to invest on shares of insurance company. | | | | | |
| 4.5. Excess fund availability influences me to invest on insurance shares. | | | | | |