

Determining Internal Factors Affecting Financial Performance Of Insurance Companies In Ethiopia

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Abstract

This study aims to determine factors affecting the financial performance of insurance companies in Ethiopia. The sample size consisted of nine insurance companies operating from 2005 to 2012. Financial performance is proxied by return on asset as dependent variable. The panel data collected from the financial statements of insurance companies is analyzed with multiple regression analysis by using STATA version 11.0. The finding shows that leverage ratio, liquidity ratio, company size, Management competence index and company growth rate are influential factors of financial performance. But, age of company and loss ratio has no effect on the financial performance of Insurance Companies in Ethiopia. A high consideration of increasing the company assets, using internal sources of financing and having highly qualified employees in the top managerial staff is advisable for insurance companies to enhance their performance.

Key words: financial performance, factors affecting, insurance companies

INTRODUCTION

Performance of an organization is the outcome of activities of individuals and units of the organization. Organizations can influence or control all factors affecting performance through formal and informal means. Performance of insurance company depends on the effectiveness of designed policies. Insurance corporations formulate and revise the policies from time to time to ensure that the performance of the managers is in the best interest of the organization (Ramanadh, 2006). Firm's performance can be estimated by measuring its profitability, and Insurer's performance is related to potential determinants other than external factors (Malik, 2011).

The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large (Naser & Mokhtar, 2004). Measuring the financial performance of companies has gained the relevance in the finance literature. The insurance industry is part of the financial system of a country and successful operation of the industry can set energy for other industries and general economic development. To achieve such aspires; the insurance industry is expected to be financially solvent and strong through being profitable in operation (Shiu, 2004).

The existence of a healthy insurance sector is an important condition for the welfare of the population and for sustainable economic growth. Company performance is very essential to management as it is an outcome which has been achieved by an individual or a group of individuals in an organization related to its authority and responsibility in achieving the goal legally (Amal, Sameer, & Yahya, 2012). Ethiopia's Insurance sector has shown strong pliability to a challenging macroeconomic environment and global development with respect to both total assets and in number as National Bank of Ethiopia reports in 2011/2012. But its contribution in the country for gross domestic product is insignificant for several years and number of people employed in the sector is very few when compared to other countries. The contribution of the financial sector to the economic growth is being affected by low performance of the insurance industry as confirmed from the results of the relationship analysis between insurance growths with GDP (Mezgebe 2010).

Statement of the Problem

The financial performance of companies varies among economic sectors, countries and regions over time. It is influenced by a very large number of factors. Profits are different from one year to another and from one company to another. Some companies obtain increases in profit; others record decreases and some even losses (Marian, 2012). Hailu (2007) has found that the insurance industry is not growing in line with the growth of the Ethiopian economy. Bayeh (2011) revealed that the Ethiopian insurance industry is among the lowest in the world and African countries. The contribution of insurance sector in the country for gross domestic product is insignificant for several years. The range of insurance products offered is limited indicating that the sector is still at an early stage of development. The annual reports of insurance companies in Ethiopia show large fluctuations in the profits (National Bank of Ethiopia, 2010/2011). For developing countries, only smaller group of studies examined financial performance of insurance companies, hence there is a need for such studies in insurance sector in developing countries. This is because identifying the factors of financial performance help to avoid losses (Malik, 2011).

Specifically in Ethiopia, though few studies have been conducted on the determinants of performance, they focused on banking sectors. The absence of empirical studies in Ethiopia concerning factors affecting the financial performance of insurance companies is then what motivated the researcher to put his own contribution on what factors affect the financial performance of insurance companies. Generally, the following research question is addressed in this study:

What are the factors dominantly and significantly affect the financial performance of insurance companies in Ethiopia?

Objectives of the study

The main objective of this study is to determine factors affecting the financial performance of Insurance Companies in Ethiopia. This general objective can be addressed with the following specific objective:

To examine the effect of Leverage ratio, Liquidity ratio, Company age, Company size, Management competence index, company growth rate and loss ratio on the financial performance of Ethiopian insurance companies.

Theoretical review

According to Hailu (2007) the emergence of modern insurance in Ethiopia is traced back to the establishment of the Bank of Abyssinia in 1905. The first domestic private insurance company was established in 1951. In the 1960s domestic private companies started to increase in number. The military government took over control of the government from 1974 to 1991 and it put an end to all private enterprises. Then all insurance companies operating were nationalized and merged them into a single unit called Ethiopian Insurance Corporation. After 1991, the proclamation for the licensing and supervision of insurance business signed. Immediately after the enactment of the proclamation in the 1994, private insurance companies began to increase (Mezgebe 2010). By the end of 2011, the Ethiopian insurance industry was composed of 14 insurance companies (13 private and 1 public), 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 five private insurers joined the industry with a total of branch networks of 47 (Kassahun, 2011). Currently, there are 16 insurance companies in operation of which one, the Ethiopian Insurance Corporation (EIC), is state-owned while the rest 15 are private (national bank of Ethiopia, 2013).

Firm's performance is the level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time. It is measurement is related to such potential determinants as company's size, loss ratio, investment ratio, capital structure, and the growth of written insurance premiums past performance (Malik, 2011). Amal et al. (2012), distinguishes between two types of firm performance, financial or economic performance and innovative performance. Firm performance is very essential to management as it is an outcome which has been achieved by an individual or a group of individuals in an organization (Hansen and Mowen, 2005). In analyzing insurance firms, it is often important to measure their performance relative to other firms in the

industry. Traditionally, this has been done using conventional financial ratios such as the return on equity, return on assets, expense to premium ratios, etc. (David & Weiss, 1998).

Financial Performance is any of many different mathematical measures to evaluate how well a company is using its resources to make a profit. Companies concentrated on the use of financial performance measures as the foundation of performance measurement and evaluation purposes (Majdy, Rafat, & Salah, 2011). There are many ways to measure financial performance, which are return on invested capital (ROIC), return on equity (ROE) and return on assets (ROA). Ramanadh (2006), Performance of insurance company in financial terms is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, return on investment, return on equity, return on asset etc. Return on assets determines an organization's ability to make use of its assets and return on equity reveals what return investors take for their investments (Tangen, 2003). Amal et al. (2012) noted financial performance can be proxied by return on assets with the equation $\text{return on assets} = \frac{\text{net profits}}{\text{total assets}}$. Return on assets emerges as the key ratio for the evaluation of profitability (Panayotis, Athanasoglou, & Delis 2008). It is one of the most widely used financial models for performance measurements that most literatures support as appropriate measure of financial performance (Ahmad, Zulfqar, & Naveed, 2011, Renbao & Kie, 2004, Liargovas & Skandalis, 2008 & Malik, 2011).

Empirical review

Related to the nature of the problem and objectives of the study, the researcher believed that factor wise review is appropriate. Most of the empirical studies have identified firm-level factors that affect the financial performance of insurance companies (Malik, 2011 in Pakistan, Kozak, 2011 in Poland, Swiss, 2008 in Egypt, Ahmed et al., 2011, in Pakistan, Adams et al., 2008 in Canada, Desheng, Sandra, & Lianga, 2008 and Wright, 1992). Most of these variables, investigated by most researchers, are discussed below:

Leverage ratio

Leverage shows the degree to which a business is utilizing borrowed money. Companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on their debt; they may also be unable to find new lenders in the future. Leverage has positive effect on financial performance and can increase the shareholders' return on their investment and make good use of the tax advantages associated with borrowing (Amal et al., 2012, Adams and Buckle, 2000, Shui, 2004, and Elango et al., 2008). Other study also argued for such findings that leverage ratio is negatively related with and significantly affects financial performance (Liargovas & Skandalis, 2008). Similarly, Harrington (2005); Bashir, (2005); and Neri, (2001), Renbao & Kie, (2004), Malik, (2011), and Kozak, (2011) argued that insurance companies with lower leverage will generally report higher ROA.

Liquidity ratio

Liquidity ratio is an important standard to measure the financial performance of companies and is current assets to current liabilities (Darzi, 2009). Liquidity refers to the degree to which debt obligations coming due in the next 12 months can be paid from cash or assets that will be turned into cash. It shows the ability to convert an asset to cash quickly and reflects the ability of the firm to manage working capital when kept at normal levels. Higher liquidity would allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings. Liargovas & Skandalis (2008) & other prior findings (Amal et al 2012) argued that Liquidity ratio has significance influence on the financial performance. Liquidity from the context of insurance companies is the probability of an insurer to pay liabilities which include operating expenses and payments for losses/benefits under insurance policies. Ahmad et al., (2011), in his investigation in Pakistan found that liquidity has statistically insignificant relationship with ROA. In contrast, Renbao & Kie (2004) examined that, liquidity is the important determinants of financial health of insurance companies with a negative relationship.

Company Age

Several earlier studies (Amal, et al., 2012, Liargovas & Skandalis, 2008) argued that firm age has no influence on its performance.(Sorensen & Stuart, 2000) argued that organizational inertia operating in old firms tend to make them inflexible and unable to appreciate changes in the environment. Newer

and smaller firms, as a result, take away market share in spite of disadvantages like lack of capital, brand names and corporate reputation with older firms (Swiss, 2008, Kakani, Saha, and Reddy, 2001) Regarding firm age, older firms are more experienced, have enjoyed the benefits of learning, are not prone to the liabilities of newness, and can, therefore, enjoy superior performance. Older firms may also benefit from reputation effects, which allow them to earn a higher margin on sales. They might have developed routines, which are out of touch with changes in market conditions, in which case an inverse relationship between age and profitability or growth could be observed (Malik, 2011). Bates et al., (2008) found that both age and size of the firm had positive and significant effect for enterprise investment scheme recipients: the highest the level of fixed assets formation, the older and larger the company.

Company Size

Majumdar (1997), the size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale and scope and thus being more efficient compared to small firms Swiss Re (2008). In addition, small firms may have less power than large firms; hence they may find it difficult to compete with the large firms particularly in highly competitive markets. On the other hand, as firms become larger, they might suffer from inefficiencies, leading to inferior financial performance. The relationship between size and performance and the influence of company size on its financial performance was also analyzed by other previous studies (Liargovas & Skandalis, 2008, Amal et al., 2012, Renbao & Kie, 2004, and Malik, 2011).

Management Competence Index

Is a multidimensional concept and a number of well documented attempts have been made in the literature to define it. More specifically, as cited by Amal et al. (2012), the term competence can be defined as an underlying characteristic of a person like motive, trait, and skill, aspect of one's self-image or social role or a body of knowledge which he or she uses. Woodruffe (1993) points out, that this definition leaves the term open to a multitude of interpretations and argues that the term competence can be used to refer to a set of behaviors, skills, knowledge and understanding which are crucial to the effective performance of a position. Rees (2003) argues that there has been an enormous diversity of interpretation of the term competence and no agreed definition however, management competence is the ability of the top managerial staff and board of directors directing quality to achieve the objectives of the companies and measured with financial performance and growth. Management competence index has a significant statistical impact on Financial Performance of insurance companies (Liargovas & Skandalis, 2008 and Merikas, G., Merikas, A., & Skandalis, 2006). The higher the qualified employees in the top managerial staff, the better the financial performance of insurance companies (Amal et al, 2012).

Company Growth Rate

According to Renbao & Kie (2004), one of the factors significantly affect general insurers' financial health in Asian economies is growth. Growth is the change in size of the company as measured by the percentage change in total assets. There is a positive and statistically significant relationship between growth rate and financial performance of insurance (Darzi, 2009). Insurance companies having more and more assets over the years have also better chance of being profitable for the reason that they do have internal capacity though it depends on their ability to exploit external opportunities. Empirical evidence by Ahmad et al (2011) in Pakistan, and Yuqi (2007) in UK of their investigation found a positive and statistically significant relationship between growth rate and financial performance of insurance companies.

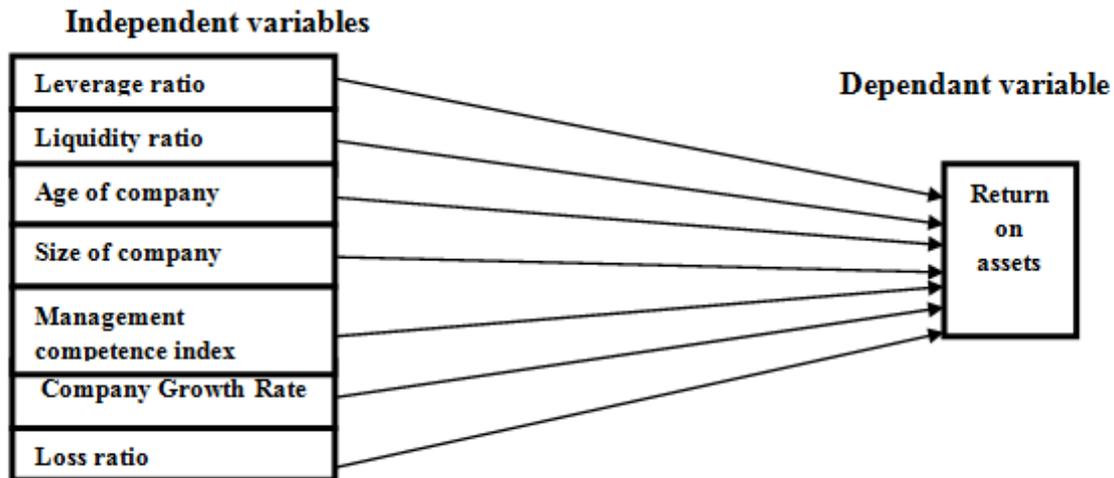
Loss ratio

Loss ratio can be defined as the percentage of total premium dollars which paid for claims on a particular type of long-term coverage. The study showed that important factors that affect ROA of insurance companies are size of capital fund, loss ratio and market power. According to Desheng et al (2008) the most common ratios used to evaluate operating performance are the loss ratios and the expense ratios. Loss ratio showed negative but significant relationship with financial performance (Ahmad et al., 2010). The variable loss ratio will be proxied by the ratio of incurred claims to the earned premiums. On the other hand the analysis suggests that a reverse and significant relationship

between loss ratio as independent variable and profitability hence, ROA is affected negatively by loss ratio (Malik, 2011).

Research model

The following research model is constructed to test the effect of these variables on the financial performance of insurance companies in Ethiopian context:



Research design

The study adopted quantitative research design. This approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion (Kothari, 2004). Quantitative research involves studies that make use of statistical analyses to obtain their findings (Geoffrey, David & David, 2005). The method consisted of the analysis of financial statements of individual insurance companies.

Sample frame

The study population consisted of 16 insurance companies currently operating in Ethiopia. Out of this total population, the researcher took 9 insurance companies as a study sample by using purposive sampling technique. This is because only these insurance companies are established and serving within the study period (2005-2012). Accordingly, insurance companies which are in service over the period of 8 consecutive years were considered for the study and then nine times eight becomes seventy two total observations included. Eight years is assumed to be relevant because five years and above is the recommended length of data to use in most finance literatures.

Data sources

In the study secondary data were used. Secondary data constituted the main source of information suitable for the purpose of present research work and they include books, Articles, Ethiopian insurance companies' financial statement and National Bank of Ethiopia in order to collect the scientific content of the theoretical framework of the study and to explain the basic concepts of the study. The data collected and analyzed is a balanced panel of nine insurance companies in Ethiopia operating over the last 8 years. Panel data analysis is an increasingly popular form of longitudinal data analysis among social and behavioral science researchers (Yuqi, 2007).

Measurement

The following factors are used as explanatory variables of financial performance assumed most appropriate ones for Ethiopian context and can be easily measured by using the data afforded by Ethiopian insurance companies. Measures of these variables are shown below:

Variables	Measured by:
Leverage ratio	The ratio of total debt to equity
Liquidity ratio	The ratio of current assets to current liabilities
Company Age	The number of years since establishment
Company Size	The Total Assets
Management Competence Index	The ratio of profit before tax to number of professional

Company growth rate	The percentage change in total assets
Loss ratio	The ratio of total claims incurred to total premiums earned
Financial performance	Return on assets

Data analysis

The collected data for the research can be analyzed through various analysis techniques. Previous literatures (Malik, 2011, Ahmad et al., 2011, and Amal et al., 2012) shows descriptive analysis; correlation analysis and regression analysis can be applied to studies with panel data evidence to investigate factors affect financial performance of insurance companies. Hence, in this study, these analyses were performed using STATA version 11.0. The regression results and t-test were also employed to test the study hypotheses.

The regression model is selected from fixed effect and random effect regression. The way of choosing between fixed and random effects is running a Hausman test. Based on this test, as shown in Appendix 1, the test values are not statistically significant (Prob>chi2 = 0.8936). Therefore, the model of this study is estimated through random effect regression. Further test was also conducted to choose between random effect versus pooled OLS regression model by using Breush and pagan Lagrangian multiplier test and the result (Appendix 2) shows that pooled OLS is fitted for the study since the P-value is insignificant (Prob > chi2 = 0.8516) at 5% level of confidence.

Regression model

By structuring the model in an appropriate way, we can remove the impact of certain forms of omitted variables bias in regression results. Thus, parameters for the following regression are estimated upon the equation indicated below:

$$ROA_{i,t} = \beta_0 + \beta_1LVR_{i,t} + \beta_2LQR_{i,t} + \beta_3CAG_{i,t} + \beta_4CSZ_{i,t} + \beta_5MCI_{i,t} + \beta_6CGR_{i,t} + \beta_7LSR_{i,t} + \epsilon_{i,t}$$

ROA=return on asset i.e., the measure of financial performance, LVR=leverage ratio, LQR=liquidity ratio, CAG=company age, CSZ=company size, MCI=management competence index, CGR=company growth rate, LSR= loss ratio and ϵ is the error term for company i at time t. β_0 is the constant value of the regression surface. $\beta_1, 2, 3, \dots, 7$ are parameters to be estimated; i = Insurance company i = 1, . . . , 9; and t = the index of time periods; t = 1, . . . , 8.

Tests of ordinary least square assumptions

According to Gujarati (2004), before running regression analysis, it is necessary to assess whether the collected data violate some key assumptions of regression.

The data were checked to verify that the assumption of multivariate normality was met. The bell-shape of the histogram and the normal probability plots indicated that residuals from the research model regression are normally distributed. The joint p value of the Skewness/Kurtosis test, as shown in appendix 4, also shows that the residuals were normally distributed (Prob > chi2 = 0.964). Therefore, the normality assumption is fulfilled and the presumption that the researcher will made about the population parameter from the sample is suitable.

One way of identifying multicollinearity is to scan the correlation matrix of all of the predictor variables and see if any correlation above 0.90. Another method is variance inflating factor with a value above 10.0 of VIF indicates multicollinearity problem. Related to the VIF is the tolerance statistics with value below 0.10 indicates a level of multicollinearity. Stata regression results (see Appendix 5) shows that Tolerance for all independent variables is more than 0.10 and Variance Inflation Factor is less than the limited value, 10.0. As a result, there is no multicollinearity between the independent variables. It is further supported that an observation of the correlation matrix (table 4.2) indicates that all the correlation coefficients of predictors are well below 0.90.

In testing Hetroskedasticity assumption Breusch-Pagan / Cook-Weisberg test is employed. The results as shown in appendix 6 prove that p value obtained through running the test is greater than the 0.05 and revealed homoscedastic results (Prob > chi2 = 0.753). Hence, we fail to reject the null hypothesis of no hetroskedasticity.

For any two observations the residual terms should be uncorrelated. This assumption was tested with the Durbin-Watson d statistics which tests for serial correlation between errors as shown (in table 4.3),

the value of the test is closer to 2 (2.007190), so, it can be safely assumed that there is no problem of autocorrelation.

Descriptive statistics

Descriptive statistics produced the mean and standard deviation for each variable for the study. Mean and standard deviation are used mostly in research studies and regarded as very satisfactory measures of variation.

Table 4.1 Descriptive Statistics

Variable	Obs.	Mean	Std. deviation
Return on Assets	72	0.058857012	0.0444315401
Leverage Ratio	72	2.193579304	0.9282198212
Liquidity Ratio	72	1.962130716	0.6869458317
Age of Company	72	14.833333333	7.4399000448
Size of Company	72	18.79196840	1.0311807074
Management Competence Index	72	11.56711727	6.5695975068
Company Growth Rate	72	0.185127011	0.1481492449
Loss Ratio	72	0.410426370	0.1131825029

As the above table shows, the presence of high variations among the values of financial performance across the insurance companies included for this study. The mean value of leverage and liquidity ratio indicates there were moderate differences between the values of leverage and liquidity across the sample firms. There is slightly high difference between the values of age with high standard deviation. With regard to size, there exists insignificant variation across the sample insurance. There are significant differences between the values of Management Competence Index because the mean value Management Competence Index. The mean and standard deviation values of Company Growth Rate show highly significant variations among the values of growth. The mean value of loss ratio and standard deviation shows slightly moderate variations among the values of loss ratio.

Correlation Analysis

Correlation analysis measures the strength or degree of linear association between two variables. It is a measure of linear association or linear dependence only; it has no meaning for describing nonlinear relations. It does not necessarily imply any cause-and-effect relationship (Gujarati 2004).

Table 4.2 Correlation table

Variables	ROA	LVR	LQR	CAG	CSZ	MCI	CGR	LSR
ROA	1.0000							
LVR	-0.0321	1.0000						
LQR	-0.0262	-0.2919	1.0000					
CAG	0.3129	0.5387	-0.1344	1.0000				
CSZ	0.3768	0.6418	-0.0245	0.6769	1.0000			
MCI	0.6926	0.1907	-0.0401	0.3900	0.3093	1.0000		
CGR	0.3516	0.1146	0.0431	-0.1764	-0.0250	0.3614	1.0000	
LSR	-0.1754	-0.3043	0.1879	-0.2257	-0.2302	-0.1780	-0.1875	1.0000

As it shown in the correlation matrix, each variable is perfectly positively correlated with itself. All the coefficient estimates of correlation for leverage ratio, liquidity ratio and loss ratio show that these variables are less correlated with ROA. The result suggests that they are independent of return on assets but it does not mean that they have no impact as far as their effect is determined by running the regression analysis. Age of company, size of company, and growth rate are positively and moderately correlated with financial performance. There is a positive and relatively strong linear association between management competence index and ROA. The analysis also indicates that several independent variables are correlated with each other.

Regression Analysis

To determine the influence of explanatory variables on the dependant variable, panel data regression analysis is used for the study.

Table 4.3 Pooled OLS Regression outputs and Coefficients using STATA

Source	SS	Df	MS		Number of obs. =	72
Model	0.099241212	7	0.014177316		F(7, 64) =	22.17
Residual	0.040924272	64	0.000639442		Prob. > F =	0.0000
Total	0.140165484	71	0.001974162		R-squared =	0.7080
					Adj. R-squared =	0.6761
					Root MSE =	0.02529
					Durbin-Watson stat=	2.00719

ROA	Coefficients	Standard error	t	P > t
(Constant)	-0.3695814	0.0736652	-5.02	0.0000
LVR	-0.0301776	0.0048163	-6.27	0.0000
LQR	-0.0107208	0.0047822	-2.24	0.0284
CAG	0.0092110	0.0091979	1.00	0.3204
CSZ	0.0237678	0.0045821	5.19	0.0000
MCI	0.0032777	0.0005756	5.69	0.0000
CGR	0.0839158	0.0250661	3.35	0.0014
LSR	-0.0181776	0.0287197	-0.63	0.5290

R-square shows that 70.8% of variations in dependant variable (ROA) are explained by the variations in the independent variables included in the model. The adjusted R square in the model, 67.6 %, shows the change in financial performance as measured by ROA can be explained by these variables. The model is statistically significant as the p-value for the model is 0.000. That is less than the limit for statistical significance which is 0.01 for and 0.05 for significance. This is good; meaning the fitness of the model in explaining the performance is high. This is supported by running Ramsey RESET test (as indicated in appendix 3) show the model is correctly specified and has no omitted variable (Prob > chi2 = 0.28).

Hypotheses testing

Hypothesis 1: Leverage ratio has no significant effect on Financial Performance of Insurance Companies in Ethiopia

Table 4.3 shows that, the absolute value of calculated t = 6.27 (greater than the tabulated value of t = 1.99) and a significance level of (0.000).The null hypothesis was rejected. Thus, the leverage which was considered as one of the important factors has a negative significant impact on financial performance for insurance company.

Hypothesis 2: Liquidity ratio has no significant effect on Financial Performance of Insurance Companies in Ethiopia

Based on table 4.3, since calculated t equals 2.24 (greater than the tabulated value of t = 1.99), with a (0.028) significance level, the null hypothesis was rejected. It shows that there is negative significant impact of liquidity ratio on Financial Performance of insurance companies.

Hypothesis 3: Company Age has no significant effect on the Financial Performance of Insurance Companies in Ethiopia

As indicated in the table (4.3), the hypothesis was accepted since the calculated t equals 1.00 (less than the tabulated value of t = 1.99), with a 0.320 significance level. This means that the age of company has no effect on financial performance.

Hypothesis 4: Company Size has significant effect on Financial Performance of Insurance Companies in Ethiopia

As shown in table (4.3), significance level is (0.000) which is less than 0.05, and calculated t equals 5.19 (greater than the tabulated value of t = 1.99). So the null hypothesis was rejected. So that the size of insurance companies was considered as an important factors that influences the financial performance.

Hypothesis 5: Management competence index has no significant effect on Financial Performance of Insurance Companies in Ethiopia

Table (4.3) also revealed that a calculated value of $t = 5.69$ (greater than the tabulated value of $t = 1.99$) and the significance level is 0.000 which is less than 0.05. Hence, the null hypothesis was rejected. The management competence index on insurance companies is a factor in impacting their financial performance.

Hypothesis 6: Company growth rate has no significant effect on financial performance of insurance companies in Ethiopia.

The calculated value of t as shown from the table 4.3 equals 3.35 (which is greater than the tabulated value of $t = 1.99$) and the significance level is 0.001 which is less than 0.05. Hence, the null hypothesis was rejected. The growth rate of insurance companies is an effective factor in impacting their financial performance.

Hypothesis 7: Loss ratio has no significant effect on financial performance of insurance companies in Ethiopia.

As shown in table (4.3), the absolute calculated value of $t = 0.63$ (less than the tabulated value of $t = 1.99$) and the significance level is 0.529 which is greater than 0.05. Thus, the null hypothesis was accepted. The loss ratio in the insurance companies has no impact on financial performance.

Findings discussion

Leverage ratio has statistically significant negative impact on Financial Performance of insurance companies. This is supported by many previous studies (Liargavas and Skandalis, 2008; Bashir, 2005; Neri, 2001 and Harrington, 2005, Renbao & Kie, 2004 in Canada, Malik, 2011 in Pakistan, and Kozak, 2011 in UK). In contrast to this, Amal et al. (2012), Adams and Buckle (2000), Shui (2004), and Elango et al. (2008) indicated that insurance companies with high financial leverage have better performance than companies with low financial leverage. Despite of contradicting findings, the result of this study shows that insurance companies with higher leverage ratio have lower return on assets than with that of less leveraged companies.

Liquidity ratio has a significant statistical impact on Financial Performance of insurance companies. It is consistent with Renbao & Kie (2004), Amal et al (2012), and Liargavas & Skandalis (2008). In contrast, Ahmed et al. (2011) argued that liquidity is found to be positively related to return on assets but statistically insignificant. Hence, this inverse relationship implies that insurance companies having more current assets should come across any available alternative investment areas otherwise it will be a negative signal for potential investors in the sector. It shows the need for effective risk management and proper liquid assets allocation practices in the insurance companies.

Company age has no significant statistical impact on Financial Performance of insurance companies. This is consistent with what Amal et al. (2012) and Liargavas & Skandalis (2008). Malik (2011) indicated that age is negatively related with profitability. In contrast, Kakani, Saha, and Reddy (2001) concluded that the age of a firm explains the variation in financial performance of insurance companies positively. This implies age of the company has no influence on good performance of insurance companies.

Size has a significant statistical impact on Financial Performance of insurance companies. This is supported by (Liargavas and Skandalis, 2008; Renbao & Kie, 2004), who stated that the larger firm are more profitable. The positive and significant coefficient of the size variable gives support to the economies of scale. Malik (2011) found that there is significantly positive association between size of the company and profitability. This implies that larger firms in Ethiopian insurance sector can maintain high return on assets.

Management competence index has a significant statistical impact on financial performance of insurance companies. This is consistent with what (Liargavas and Skandalis, 2008) and (Merikas et al, 2006) have found. Empirical evidence by Amal et.al (2011) also found a positive and statistically significant relationship between management competence index and profitability of insurance companies. Hence, companies having higher the level of education of professionals, the better quality of their competence and thus the company's ability to be healthy in their financial performance. For this study professionals stands only for the top level management staffs and directors of a company. This predicts that Ethiopian insurance companies with higher Management competence and qualified

professionals placed at a better position in performing higher return on assets than that of with lower Management aptitude.

Company growth rate is positively related with financial performance of insurance companies. This is consistent with Renbao & Kie (2004) and Ahmad et al (2011). Hence, Insurance companies having more and more assets over the years have also better chance of being profitable for the reason that they do have internal capacity though it depends on their ability to exploit external opportunities. This implies that Ethiopian insurance companies with high growth rate. This leads to be a focus for potential investors since high growth rate of companies can motivate them because it is a positive signal; it indicates that the firm can be easily profitable and hence face a lower risk of business.

Loss ratio has a negative and significant impact on the performance of insurance sector (Ahmad et al. 2011). Similarly, the empirical evidences by Malik (2011) revealed that there exists a negative and significant relationship between loss ratio and profitability of insurance companies and argued that the higher the level of loss ratio, the lower the financial performance of insurance company is. However, the results of the current study concerning loss ratio show inconsistency with these findings. This shows that there is no statistically significant relationship between loss ratio and financial performance of insurance companies in Ethiopia. Although the statistical results reveal no significant relationship between the variables, it can be concluded that loss ratio negatively affects financial performance of insurance companies in Ethiopia.

Recommendations

Great attention should be paid to leverage ratio. Companies that are highly leveraged may be at a lower financial performance and they are unable to make payments on their debt; they may also be unable to find new lenders in the future because high amount of debt leads the company to have low financial performance this in turn discouraging the potential investors in the same sector. Companies should attempt to find more internally generated sources of finance and equity financing than debt financing.

Companies should not have much more current assets than their current liabilities. Hence, the insurance companies of Ethiopia should first reduce the idle cash and other current assets generated from borrowing and then they have to use their liquid assets properly by searching for available alternative investments.

It is worthwhile to have high consideration of increasing the company assets. Because the size of the company is an important factor as it influences its competitive power.

It is advisable to Ethiopian insurance companies to have highly qualified employees in the top managerial staff.

Potential investors in the insurance industry in Ethiopia should not be frustrated the dominance of older companies in the sector. The new entrants in insurance industry of Ethiopia also should not worry about the existence of loss and be courage to join to the insurance business but with a consideration of managing risk to control its insignificant negative impact.

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APPENDICES

Appendix 1: Hausman Test for panel regression

	-----coefficients-----			
	(b)	(B)	(b-B)	sqrt (diag (v_b-v_B))
	FE	RE	difference	S. E.
LVR	-0.020680	-0.030178	0.000023	0.004816
LQR	-0.000627	-0.010721	0.000009	0.004782
CAG	0.110104	0.009211	0.001474	0.009198
CSZ	0.019542	0.023768	0.000542	0.004582
MCI	0.002898	0.003278	-0.000038	0.000576
CGR	0.081408	0.083916	0.000084	0.025066
LSR	-0.003414	-0.018178	0.000529	0.028720

Test: Ho: difference in coefficients not systematic
 $\chi^2 (3) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 3.276$
 Prob>chi2 = 0.8936

Appendix 2: Breusch and Pagan Lagrangian multiplier test for random effects

$$ROA [ID, t] = Xb + u [ID] + e [ID, t]$$

Estimated results:		
Variable	Standard deviation	Sqrt (Var)
ROA	0.0019742	0.0444315
e	0.0005379	0.0231917
u	0	0
Test:	Var(u) = 0 Chi2(1) = 0.03 Prob > chi2 = 0.8516	

Appendix 3: Ramsey RESET test using powers of the fitted values of ROA

Ho: model has no omitted variables

F (3, 61) =	1.32
Prob > F =	0.2761

Appendix 4: Skewness/Kurtosis tests for Normality

H0: Variables are normally distributed

----- joint -----					
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	chi2	Prob>chi2
Residuals	72	1.0000	0.7858	0.07	0.9637

Appendix 5: Multicollinearity test using STATA Regression

Variable	VIF	1/VIF
LVR	2.22	0.450624
LQR	1.20	0.834518
CAG	2.49	0.401813
CSZ	2.48	0.403407
MCI	1.59	0.629818
CGR	1.53	0.653084
LSR	1.17	0.852360

Mean VIF 1.81

Appendix 6: Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity

Ho: Constant variance

Variable	chi2	df	p
LVR	0.50	1	0.4784
LQR	0.84	1	0.3606
CAG	0.03	1	0.8573
CSZ	0.35	1	0.5534
MCI	0.06	1	0.8007
CGR	0.79	1	0.3740
LSR	1.30	1	0.2535
Simultaneous	4.23	7	0.7534