

A STUDY ON THE PERFORMANCE OF INSURANCE COMPANIES IN ETHIOPIA

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ABSTRACT

Profitability is one of the most important objectives of financial management because one goal of financial management is to maximize the owner`s wealth. This paper examined the effects of firm specific factors (age of company, size of company, volume of capital, leverage ratio, liquidity ratio, growth and tangibility of assets) on profitability proxied by Return on Assets. Profitability is dependent variable while age of company, size of company, volume of capital, leverage liquidity ratio, growth and tangibility of assets are independent variables. The sample in this study includes nine of the listed insurance companies for nine years (2003-2011). Secondary data obtained from the financial statements (Balance sheet and Profit/Loss account) of insurance companies, financial publications of National Bank of Ethiopia are analyzed. From the regression results; growth, leverage, volume of capital, size, and liquidity are identified as most important determinant factors of profitability hence growth, size, and volume of capita are positively related. In contrast, liquidity ratio and leverage ratio are negatively but significantly related with profitability. The age of companies and tangibility of assets are not significantly related with profitability.

KEYWORDS: Factors, Growth, Insurance Companies, Profitability, Tangibility of Assets.

INTRODUCTION

The role of financial institutions in the economy of a country in general and insurance companies in particular and it means their efficient and effective financial system through savings mobilization, risk transfer and intermediation. Therefore, financial institutions, channel funds and transfers risks from one economic unit to another economic units so as to facilitate trade and resources arrangement. Recent research, as surveyed by Naveed et al (2011), shows that the efficiency of financial intermediation and transfer of risk can affect economic growth while at the same time institutional insolvencies can result in systemic crises which have unfavorable consequences for the economy as a whole. Hence, the important role that financial institutions such as insurance companies remain in financing and insuring economic activity and contribute to the stability of the financial system in particular and the stability of the economy of concerned country in general is part of immune and repair system of the economy. Therefore it requires empirical investigation so as to sort out what are the important factors affecting profitability of insurance companies and this will help concerned bodies to focus on the relevant factors. Hence the efficient performance of the institutions has become important and investigations by different researchers focus on what factors determine the performance especially the financial performance of the sector.

EVOLUTION OF INSURANCE COMPANIES IN ETHIOPIA

The history of insurance service is as far back as modern form of banking service in Ethiopia which was introduced in 1905. At the time, an agreement was reached between Emperor Menelik II and a representative of the British owned National Bank of Egypt to open a new bank in Ethiopia. Similarly, modern insurance service, which were introduced in Ethiopia by foreigners, mark out their origin as far back as 1905 when the bank of Abyssinia began to transact fire and marine insurance as an agent of a foreign insurance company. According to a survey made in 1954, there were nine insurance companies that were providing insurance service in the country. With the exception of Imperial Insurance Company that was established in 1951, all the remaining of the insurance companies were either branches or agents of foreign companies. In 1960, the number of insurance companies increased considerably and reached 33. At that time insurance business like any business undertaking was classified as trade and was administered by the provisions of the commercial code.

According to Hailu Zeleke (2007), the first significant event that the Ethiopian insurance market observation was the issuance of proclamation No. 281/1970 and this proclamation was issued to provide for the control & regulation of insurance business in Ethiopia. Consequently, it created an insurance council and an insurance controller's office, its strange impact in the sector. The controller of insurance licensed 15 domestic insurance companies, 36 agents, 7 brokers, 3 actuaries & 11 assessors in accordance with the provisions of the proclamation immediately in the year after the issuance of the law.

Accordingly as stated by the office mentioned above, the law required an insurer to be a domestic company whose share capital (fully subscribed) not to be less than Ethiopian Birr 400,000 for a general insurance business, Birr 600,000 in the case of long-term insurance business and Birr 1,000,000 to do both long-term & general insurance business. The proclamation defined 'domestic company' as a share company having its head office in Ethiopia and in the case of a company transacting a general insurance business at least 51% and in the case of a company transacting life insurance business, at least 30% of the paid-up capital must be held by Ethiopian nationals or national companies.

After four years that is after the enactment of the proclamation, the military government that came to power in 1974 put an end to all private enterprises. Then all insurance companies operating were nationalized and from January 1, 1975 onwards the government took over the ownership and control of these companies & merged them into a single unit called Ethiopian Insurance Corporation. In the years following nationalization, Ethiopian Insurance Corporation became the sole operator. After the change in the political environment in 1991, the proclamation for the licensing and supervision of insurance business heralded the beginning of a new era. Immediately after the enactment of the proclamation in the 1994, private insurance companies began to increase.

REVIEW OF LITERATURE

Renbao Chen et.al (2004) stated in their investigation that “higher profits provide both the means (greater availability of finance from retained profits or from the capital market) and the incentive (a high rate of return) for new investment”. Therefore, we can understand from the above explanation that insurance companies have double responsibility: in one way they are required to be profitable so as to have high rate of return for new investment. On the other

hand, insurance companies need to be profitable in order to be solvent enough so as to make other industries in the economy as they were before even after risk occurred.

Profitability is one of the most important objectives of financial management because one goal of financial management is to maximize the owner's wealth and profitability which in turn indicates better financial performance. According to Hafiz Malik (2011) insurance plays a crucial role in fostering commercial and infrastructural businesses. From the latter perspective, it promotes financial and social stability; mobilizes and channels savings; supports trade, commerce and entrepreneurial activity and improves the quality of the lives of individuals and the overall wellbeing in a country.

THE CONCEPT OF PROFITABILITY

William H. Greene and Dam Segal (2004) argued that the performance of insurance companies in financial terms is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, return on investment, return on equity. These measures could be classified as profit performance measures and investment performance measures. However, most researchers in the field of insurance and their profitability stated that the key indicator of a firm's profitability is ROA defined as the before tax profits divided by total assets. Philip Hardwick and Mike Adams (1999), Hafiz Malik (2011) are among others, who have suggested that although there are different ways to measure profitability it is better to use ROA.

DETERMINATES OF PROFITABILITY IN INSURANCE COMPANIES: AN EMPIRICAL REVIEW

Profitability in insurance companies could be affected by a number of determining factors. These factors, as explained above could be further classified as internal, industry, and macroeconomic factors. However, as will be discussed in the coming consecutive sections of the review, in most literatures, profitability with regard to insurance companies usually expressed in as a function of internal determinants. Rather, most researches concerning determinants of profitability in insurance companies are divided in to two, such as determinants of profitability in property/liability or general insurance companies and in life/health insurance companies.

According to Yuqi Li (2007) financial institutions' non-financial statements variables are classified as management quality, efficiency and productivity, age and number of branches. Most researches concerning insurance companies are conducted with respect to only financial statement variables. Hence, newly established banks are not particularly profitable in their first years of operation, as they place greater emphasis on increasing their market share, rather than on improving profitability Athanasoglou *et al.*, (2005). Similarly, Yuqi li (2007) indicate that older banks expected to be more profitable due to their longer tradition and the fact that they could build up a good reputation. Obviously, the above empirical studies those include age as one of their explanatory determinant indicates a positive relationship between age and profitability.

According to Athanasoglou *et al.*, (2005) the effect of a growing size of a bank on profitability has been proved to be positive to a certain extent. Consequently, a positive relationship is expected between size and profitability by many insurance area researchers. However, for firms that become extremely large, the effect of size could be negative due to bureaucratic and other reasons Yuqi Li (2007). Hence, the size-profitability relationship may

be expected to be non-linear. Therefore most studies use the real assets in logarithm and their square in order to capture the possible non-linear relationship.

Renbao Chen and Rie Ann Wong (2004) stated that leverage beyond the optimum level could result in higher risk and low value of the firm. Empirical evidences with regard to leverage found to be statistically significant relationship but negative. The relationship between leverage and profitability has been studied extensively to support the theories of capital structure and argued also that insurance companies with lower leverage will generally report higher ROA, but lower ROE. Since an analysis for Return on Equity (ROE) pays no attention to the risk associated with high leverage.

Studies conducted in different countries found that for non-life insurance companies, size of capital is one of the important factors that affect ROA; Hafiz Malik (2011) examined the relationship between volume capital and return on asset for Pakistan insurance industry and found positive and statistically significant relationship between insurance capital and profitability. Tangibility of assets in insurance companies in most studies is measured by the ratio of fixed assets to total assets.

A study by Naveed Ahmed et.al... (2011) investigates the impact of firm level characteristics on performance of the life insurance sector of Pakistan over the period of seven years. For this purpose, size, profitability, age, risk, growth and tangibility are selected as explanatory variables while ROA is taken as dependent variable. The results of Ordinary Least Square (OLS) regression analysis revealed that leverage, size and risk are most important determinant of performance of life insurance sector whereas ROA has statistically more of insignificant relationship with, tangibility of assets. However, Hafiz Malik (2011) found that there exists a positive and significant relationship between tangibility of assets and profitability of insurance companies and argued that the highest the level of fixed assets formation, the older and larger the insurance company is. In contrast to this, Yuqi Li (2007) in UK found no significant relationship between tangibility of assets and profitability of insurance companies.

Most literatures focus on factors affecting profitability of banks rather than insurance companies. Therefore, there are fewer literatures concerning insurance companies as compared to banks. The existing literatures concerning insurance companies could be classified into two: determinants of financial performance of life and non-life insurance companies. Empirical evidences regarding determinants of insurance companies focused only on internal factors such as age, size, leverage, growth, volume of capital, tangibility of assets and liquidity. The results found by the researchers mentioned above in the empirical revealed inconsistencies according to the country in which the research is conducted regarding some variables.

STATEMENT OF THE PROBLEM

The best performance of any industry in general and any firm in particular plays the role of increasing the market value of that specific firm coupled with the role of leading towards the growth of the whole industry which ultimately leads to the overall success of the economy. Measuring the performance of financial institutions has gained the relevance in the corporate finance literature because as intermediaries, these companies in the sector are not only providing the mechanism of saving money and transferring risk but also helps to channel

funds in an appropriate way from surplus economic units to deficit economic units so as to support the investment activities in the economy.

The insurance industry in particular is part of immune and repair system of an economy and successful operation of the industry can set energy for other industries and development of an economy. To do so the insurance industry is expected to be financially solvent and strong through being profitable in operation. Hence, not only measuring the financial performance of insurance companies but also clear insight about factors affecting financial performance in the industry is then the problem to be investigated. Therefore, the determinants of insurance company's performance have attracted the interest of academicians, practitioners and institutional supervisors.

The absence of empirical studies in Ethiopia concerning determinants of insurance companies' profitability is then what motivated the researcher to put his own contribution on what factors affect the financial performance of insurance companies. While taking in to consideration the absence of empirical inquiry into the factors affecting insurance companies' financial performance, the researcher attempts to work on such untouched empirical evidence in the country. Hence, these are important issues to be investigated for the insurance managers, professionals, regulators and policy makers to support the sector in achieving the excellence so that required economic outcomes could be obtained from the help of the sector in Ethiopia by understanding the success and failure factors of profitability.

SIGNIFICANCE OF THE STUDY

Most of the studies previously focused on banks not on insurance companies as well as some focused on only analysis of financial performance not on factors affecting financial performance. Therefore, this study is expected to provide empirical evidence on the profitability of insurance companies in Ethiopia. Furthermore, many parties would benefit from the results that will emerge from the results of the study. Administration interested in identifying indicators of success and failure to take the necessary actions to improve the performance of the company and choose the right decisions. Government interested in knowing which companies operate successfully or failed to take the necessary measures to avoid crises of the bankruptcy in these companies. Investors interested in such studies in order to protect their investment, and directing it to the best investment. Customers interested in knowing the ability of insurance companies to pay their obligations based on the indicators of success of the companies. This study can contribute potentially serve as a stepping stone for further research in the area.

OBJECTIVES OF THE STUDY

The objectives of this study, will address one broad general objective and some more specific objectives just derived from the general objective and these are presented below.

GENERAL OBJECTIVE

The main objective of the study is to identify and compare the factors determining the financial performance of the Ethiopian insurance companies for the period of 2003 to 2011.

SPECIFIC OBJECTIVES

Based on the above general objective, we elucidate the following specific objectives:

1. To identify the main determinants of insurance companies' profitability.

2. To measure the extent to which these determinants exert impact on insurance companies' profitability.
3. To rank the factors according to their degree of influence on insurance companies' profitability.
4. To determine the relationship between these factors and profitability in insurance companies.

HYPOTHESIS

Based on review of relevant and related literatures, it is hypothesized that volume of capital, growth, age and size of company, leverage ratio, liquidity ratio and previous profitability are expected to influence firms' profitability as measured by Return on Assets (ROA). Accordingly, the following hypotheses were formulated in this study:

H1: There is a positive relationship between age and profitability of insurance companies in Ethiopia.

H2: There is a positive relationship between size and profitability of insurance companies in Ethiopia.

H3: There exists a positive relationship between any increase in volume of capital and profitability of insurance companies in Ethiopia.

H4: There is a negative relationship between leverage and profitability for Ethiopian insurance companies.

H5: There is a positive relationship between growth and profitability of Insurance companies in Ethiopia.

H6: Tangibility of assets of insurance companies and their profitability are negatively related.

H7: Liquidity ratio and profitability of insurance companies are negatively related.

RESEARCH METHODOLOGY

This study examines the previous findings in the literature, and applies the model in Ethiopian insurance companies. Therefore, a deductive approach is adopted by constructing an empirical model and hypothesizing its collinear relationship between determinants and its dependent variable: profitability of insurance companies in Ethiopia. To comply with the objective of this research, the paper is primarily based on quantitative research, which constructed an econometric model to identify and measure the determinants of profitability. Specifically, multiple regression analysis is adopted to measure the effect of determinants on profitability. The use of multiple regressions considers the simultaneous relationships amongst the multiple numbers of independent and dependant variables found across the regression model, therefore suited to the nature of the study.

The significance of the impact of the independent variables on dependent variables is, at the same time, highlighted in using multiple regressions. Multiple regressions are further utilized to examine the associative relationships between variables in terms of the relative importance of the independent variables and predicted values of the dependent variables. For the initial construction of the decomposed model an exploratory study was carried out through a search of the available literature to identify the exact components of the model. Further literature search was conducted to find other factors which could potentially and clearly affect profitability of insurance companies in Ethiopia. By summarizing previous studies, liquidity, volume of capital, firm size, age, leverage, growth and tangibility of assets are selected to be included as explanatory variables in the model.

The secondary data sources for this paper are individual insurance companies annual reports that contain detailed consolidated balance sheets and income statements and National Bank of Ethiopia, which can provide comprehensive database for all insurance companies. Given the research objectives coupled with research questions, it is considered that purposive sampling is employed so as to include all insurance companies established and serving with in the specified period of time from June 2003 to June 2011 and the size for sample is nine insurance companies operating over the period of 9 years as taken.

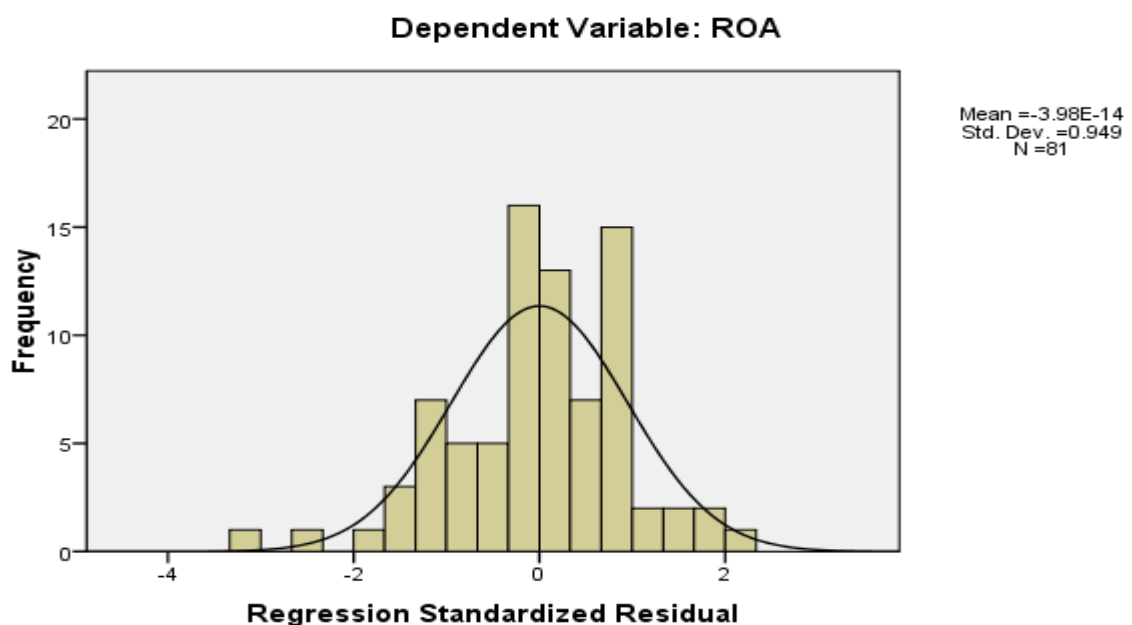
RESULTS AND DISCUSSIONS

The empirical results based on the linear regression to test the outcomes of the analysis for nine insurance companies in Ethiopia during the period 2003 to 2011. The investigation is with regard to the relationship between profitability as dependent variable and age of insurance companies, size of insurance companies, volume of capital, leverage ratio, growth rate, tangibility of company assets and liquidity ratio as independent variables.

NORMALITY OF DATA

Before running regression analysis, it should be noted that there are four classic assumptions in undertaking the regression analysis and one of them is normality of data. Therefore, normality test becomes relevant. The normality assumption is about the mean of the residuals is zero. Therefore, we used graphical methods of testing the normality of data. From figure 1 below, it can be noted that the distribution is normal curve, indicating that the data confirms to the normality assumption. In addition, the normal probability plots were used to test the normality of data as shown below in figure 1 and figure 2.

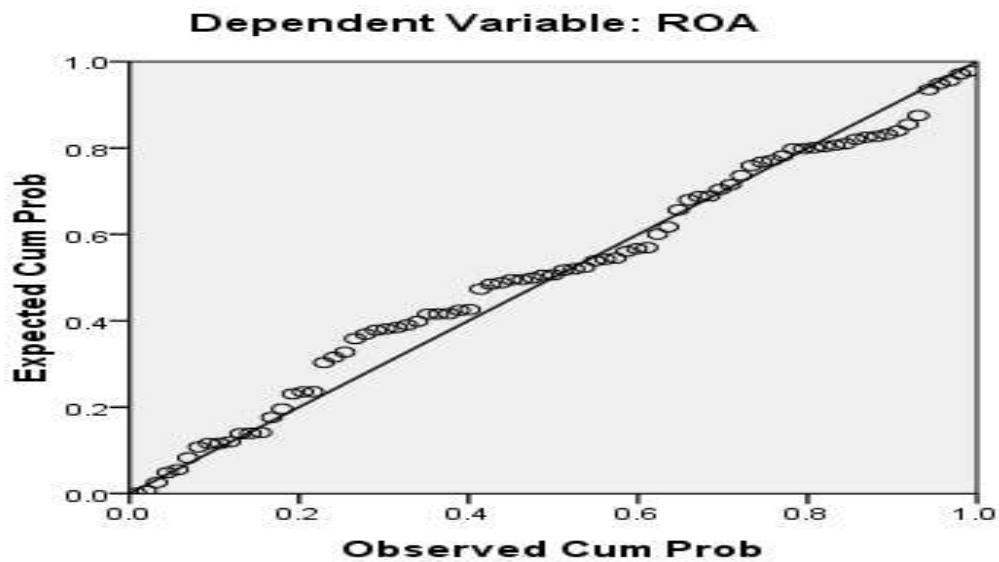
Figure 1: Histogram



Source: SPSS regression output

If the residuals are normally distributed around its mean of zero the histogram is a bell-shaped. The shape of the histogram as shown above in figure 1 revealed that the residuals are normally distributed around its mean of zero.

Figure 2: Normal P-P plot of regression standardized residual



Source: SPSS regression output

Similarly, the above figure shows the normal distribution of residuals around its mean of zero. Hence the normality assumption is fulfilled as required based on the above two figures, it is possible to conclude that the inferences that the researcher will made about the population parameter from the sample is somewhat valid.

DESCRIPTIVE STATISTICS

Univariate analysis of all the variables in this study is represented as in the following table. The study presents the empirical test results that include the descriptive. It explores and presents an overview of all variables used in the study.

The table below (Table 1) shows that there are 81 numbers of valid cases or “N” for each variable.

Table 1 Descriptive statistics

	Mean	Std. Deviation	N
ROA	0.060254	0.0425792	81
LAG	0.062355	0.0445553	81
AGE	13.67	7.440	81
SIZE	18.720871	1.0561071	81
LEV	2.1274820	0.9355457	81
GR	0.181054	0.1809098	81
VOC	17.62280	0.8792137	81
TA	0.134005	0.0880514	81
LQ	1.968611	0.6913957	81

Source: SPSS descriptive statistics out put

The table 1 indicates that the mean values of all the variables ranges from minimum of 0.06 for ROA to a maximum of 18.7 for size. The average profitability as measured by ROA for Ethiopian insurance companies during the study period is about 0.06 and the value of the

standard deviation for ROA is 0.04 which implies the presence of moderate variations among the values of profitability across the insurance companies.

The mean value of age is 13.67 years and there are significant differences among values of age because the value of the standard deviation as shown in the table is 7.44 years. The mean value of size is 18.72. Therefore, with regard to size as shown in the table above, there exists significant variation across the sample insurance companies for the reason that the value of the standard deviation is 1.056107. Hence the highly deviated size among insurance companies may have significant impact on profitability of insurance companies that we are going to see in the regression results. The mean value of leverage is 2.127482 implies that there were moderate differences among the values of leverage as measured by debt to equity ratio across the sample insurance companies under this study and is because the value of standard deviation is 0.935546. The mean value of growth is 0.181054 and the value of standard deviation for the same variable is 0.180910 which shows that there were no significant variations among the values of growth as measured by the change in total assets over the years across the sample insurance companies.

The average value for volume of capital (VOC) has become 17.62280 with a standard deviation of 0.879214. Therefore, there exists very significance variation among the values of volume of capital across the sample insurance companies included in this study.

Table 1 also shows that the mean value for tangibility of assets is 0.134005 and the standard deviation is 0.088051 implies that there exists moderate variation among the values of tangibility of assets in insurance companies.

Similarly the mean value of liquidity ratio is 1.968611 with the value of standard deviation 0.691396 which also shows us the existence of moderate difference among the values of liquidity ratio for insurance companies under consideration. Therefore, this study is conducted to what extent; the variations in factors affect the profitability of insurance companies in Ethiopia.

Table 2 White test regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.382 ^a	0.146	0.064	0.00138718154

Source: SPSS regression output

Table 3 Chi Square calculated and tabulated

Test	t-statistics X^2 calculated = nR^2	X^2 (5% sig. level) $X^2\alpha(p)$, where $p=xi+1$
White's test	11.826	18.307

Source: SPSS regression output

The results from the table 2 and 3 above show that X^2 square value obtained through calculation is less than the value of Chi square value from the table at 5% significant level. According to white test if the value of chi square calculated is greater than the chi square tabulated at a given significant level, we have to reject the Ho of no heroskedasticity otherwise we fail to reject it and accept the alternative that is there exists hetroskedasticity.

The t-statistics value (chi square calculated) from table 3 above is 11.826 which is less than chi square tabulated at 5% significant level, 18.307. Hence 11.826 is less than 18.307 so that we fail to reject the null hypothesis of no heteroskedasticity. In this case it is indicated that there is no evidence for the existence of heteroskedasticity.

CORRELATION ANALYSIS

The correlation coefficient represents the linear relationship between two variables. The most widely-used type of correlation coefficient is Pearson r, also called linear or product-moment correlation. The significance level calculated for each correlation is a primary source of information about the reliability of the correlation. The significance of a correlation coefficient of a particular magnitude will change depending on the size of the sample from which it was computed. Here, the analysis is with regard to significant correlations between the dependent variable and each independent variable separately, to decide whether to accept or reject the hypotheses.

Table 4 shows correlations between ROA and independent variables. Return on Assets is negatively correlated with leverage (lev) and liquidity (LQ). The coefficient estimates of correlation -0.015376 and -0.045734 for leverage and liquidity respectively. The result suggests that leverage and liquidity are independent of return on assets.

Table 4 Correlations between profitability and independent variables

	ROA	LAG	AGE	SIZE	LEV	GR	VOC	TA	LQ
ROA	1.000000	0.259071	0.222132	0.356744	-0.044616	0.257726	0.436393	0.090525	-0.056834
LAG	0.259071	1.000000	0.155454	0.254125	-0.038359	-0.285424	0.316130	-0.032067	0.099973
AGE	0.222132	0.155454	1.000000	0.478159	0.575873	-0.195013	0.743681	-0.092996	0.060831
SIZE	0.356744	0.254125	0.478159	1.000000	0.672534	-0.054147	0.971563	-0.182436	-0.083522
LEV	-0.044616	-0.038359	0.575873	0.672534	1.000000	0.076373	0.484409	-0.033366	-0.312444
GR	0.257726	-0.285424	-0.195013	-0.054147	0.076373	1.000000	-0.093431	-0.027489	0.020878
VOC	0.436393	0.316130	0.743681	0.971563	0.484409	-0.093431	1.000000	-0.217501	0.023037
TA	0.090525	-0.032067	-0.092996	-0.182436	-0.033366	-0.027489	-0.217501	1.000000	-0.435031
LQ	-0.056834	0.099973	0.060831	-0.083522	-0.312444	0.020878	0.023037	-0.435031	1.000000

Source: SPSS Output

The highest positive percentages are size as measured by total assets and volume of capital. The coefficients of correlations are 37.67% and 43.64% respectively and they are positively correlated with profitability as measured by ROA. This means that as these

variables increase ROA also will increase. The table also shows that age and tangibility are correlated positively but it is not statistically significant at 1%, 5% and 10% significance level. Therefore, profitability is independent of age and tangibility of assets. The descriptive statistics also indicate two of the variables namely size and volume of capital are strongly correlated with each other with a coefficient estimate of 97%. Hence, there may appear multi collinearity problem and care should be taken with the results of regression analysis.

The correlation analysis shows that ROA is significantly correlated with size of company, leverage ratio, firm growth, volume of capital and liquidity ratio. The analysis also indicates that several independent variables are correlated with each other. For instance volume of capital is positively correlated with size of company and age of company as well. This observation indicates that special attention should be given to the possible problem of multi collinearity when regression analysis is executed.

TESTING THE HYPOTHESES BASED ON CORRELATION ANALYSIS

Table 5 correlation between independent variables and ROA

Hypotheses	Variable	Correlation coefficient (r)	P-value
1	AGE	0.22	0.15
2	Size	0.36	0.00
3	Leverage	-0.044616	0.0025
4	Growth	0.257726	0.02002
5	VOC	0.436393	0.0000
6	Tangibility of assets	0.0905	0.4216
7	Liquidity	-0.0597	0.0614

Source: SPSS output

The table 5 shows the results of the hypothesis testing and the following conclusions were drawn:

- We found that there is no significant relationship between age and profitability as measured by ROA. Therefore, we do not accept the H1.
- We can also see that size is positively correlated with ROA and this relationship is statistically significant. Hence H2 is accepted.
- It shows that there is a significant and negative relationship between leverage ratio and ROA and therefore H3 is accepted.
- The result shows that there is a significant positive correlation between firm growth and ROA. Hence H4 is accepted
- The result shows that there is a significantly strong correlation between VOC and ROA. Hence H5 is accepted.
- The result shows that there is no significant relationship between tangibility of assets and ROA. Hence H6 is not accepted.
- The result shows that there is slightly negative correlation between liquidity and ROA. Hence H7 is accepted.

REGRESSION ANALYSIS

Table 6: Collinearity (model 2)

Model 2	coefficients		t	Sig.	Collinearity statistics	
	B	Std.Error			Tolerance	VIF
C	-0.395	.116	-3.415	.001		
LAG	.181	.091	1.999	.049	.778	1.285
AGE	.001	.001	1.215	.228	.301	3.230
SIZE	.026	.007	3.936	.000	.259	3.867
LEV	-0.030	.006	-5.154	.000	.419	2.387
GR	.104	.022	4.746	.000	.811	1.233
TA	.067	.046	1.409	.163	.719	1.391
LQ	-0.012	.077	-1.758	.083	.602	1.662

Dependent variable: ROA

Source: Random effect regression output of SPSS

From the table 6, for the model, excluding volume of capital, from the list of all regressors, the results show that variance inflation factor (VIF) value for all variables becomes less and the tolerance value for all variables is not near to zero. It indicates that this model is free from multi-collinearity. Hence, there is no problem of multi-collinearity between the variables in this model. Therefore regression analysis is done by excluding volume of capital from the model.

Table 7: Model summary (b)

Mo del	R	R ²	Adjusted R ²	Standard Error of the estimate
2	0.69	0.48	0.439	0.0318967
	9 ^a	8		

Source: SPSS output

Empirical results provide detailed discussions on sample descriptive statistics and mean comparison between ROA and independent variables (age, size, leverage, growth, volume of capital, tangibility of assets and liquidity ratio) followed by correlation analysis to determine the relationship between dependent variable and towards independent variables. Regression analysis is also used to describe the profitability among insurance companies.

ROA is affected positively by firm size, volume of capital and growth but negatively by leverage and liquidity. Therefore, growth, leverage, size, volume of capital and liquidity are identified as determinant factors of profitability in insurance companies of Ethiopia. The findings of this study contribute towards a better understanding of financial performance in Ethiopian insurance companies. ROA and seven other variables that represent age, size, leverage, growth, volume of capital tangibility and liquidity were developed to test which factors best describes profitability of Ethiopian insurance companies.

The results show that growth, leverage, volume of capital, size and liquidity are the most important factors affecting profitability of insurance companies in Ethiopia respectively in order of their degree of influence. The results show that there is no relationship between profitability and age of company of the Ethiopian insurance companies. Similarly, the results

show that there exists no relationship between tangibility of assets and profitability of insurance companies in Ethiopia.

CONCLUSION

The objective of this study is to examine the internal factors affecting profitability of insurance companies as measured by ROA. The results of regression analysis reveals that leverage, size, volume of capital, growth and liquidity are most important determinant of performance of life insurance sector whereas ROA has statistically insignificant relationship with, age and tangibility. As the findings shows that liquidity do have negative impact on profitability and it provides further implication on the effective risk management practices in the companies.

- The positive relationship between size and ROA implies that size is used to capture the fact that larger insurance companies are better placed than smaller once in harnessing economies of scale in transactions and enjoy a higher level of profits.
- Tangibility and age are not considered as powerful explanatory variables to define the performance of insurance companies in Ethiopia over nine years.
- It is implied that highly profitable insurance companies are more likely relied on internally generated funds and equity capital than debt capital as the source of financing.
- Well capitalized insurance companies face lower costs of going bankrupt, which reduces their cost of funding or that they have lower needs for external funding which results in higher profitability.
- The positive and statistical significant relation between growth rate and profitability of insurance companies in Ethiopia implies that insurance companies with high rate of growth in terms of their total assets are also in a better position of being profitable.

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