

Determinants of Profitability in Private Insurance Companies in Ethiopia

Asrat Lire Tesfahun Tegegn
Wolaita Sodo University, College of Business and Economics
Department of Management, Wolaita Sodo, Ethiopia

Abstract

This study analyzes the determinant of profitability of private insurance company in Ethiopia over the period from 2005 to 2015 by using non probability judgment sampling design of eight private insurance companies' for the econometrics analysis of multiple regressions of fixed effect approach of panel data. The constituent of firm specific and macro variable (Underwriting risk, Reinsurance Dependence, Solvency Ratio, Premium growth, Company Size and macro factor Growth rate of GDP, Inflation and Interest Rate) analysis was made to investigate the determinants of private insurance company profitability. The fixed effect panel data model regression analysis shows that private insurers' profitability is statistically significantly affected by firm specific factor which is underwriting risk negatively, company size positively, premium growth positively, and solvency ratio negatively and reinsurance dependency has no influence on profitability and statistically insignificant. The macroeconomic variable economic growth rate has significant influence on profitability and inflation has insignificant influence on insurers' profitability whereas interest rate which measured by time deposit weighted average was insignificant variable. The study recommended that private insurance companies should reduce the impact of underwriting risk by improving their underwriting performance through techniques like risk and product selections with geographical and different pricing strategy, private insurance company should improve underwriting in favor of economic growth of the country via identifying the potential and priority direction of the overall economic activity and growth of the country. Private insurance company should also increase their company asset.

Keywords: profitability, determinants, private insurance, Ethiopia

1. Introduction

In real world profitability for any business attached with the firm business performance. Performance is a difficult concept in terms of definition and evaluation. It is defined as an output, and the proper measure select to assess corporate performance is considered according to the organization type and objectives of evaluation. Researcher in strategic management has offered a variety of models that can be used to analyze financial performance. Profitability, defined as proxy of financial performance, is one of the main objectives of insurance company's management (Burca & Batrinca, 2014). Profit is a crucial prerequisite for an increasing competitiveness of a company that operates in a market.

At microeconomic level, performance is the direct result of managing various economic resources and of their efficient use within operational, investment and financing activities. To optimize economic results, a special attention should be given to the proper grounding of managerial decisions (Malik 2011). These should be based on complex information regarding the evolution of all types of activities within the company. A synthetic picture of the company's financial position and its performance is found in the annual financial statements, which therefore become the main information sources that allow the qualitative analysis of how resources are used during the process of creating value.

Profitability of private insurance companies was analyzed through micro and macroeconomic level, being determined both by internal factors represented by specific characteristics of the company which is totally under the hand of the corporate management system, and external factors regarding connected industry and macroeconomic environment in general which also not under the hand of the corporate management but identifying and knowing its directions and magnitude helps to develop the strategy to get the opportunity or to minimize the treat.

In a competitive marketplace, private insurance companies essentially absorb to achieve a satisfactory level of profitability (Malik 2011). Increasing profitability involves determining which areas of operation and a financial strategy are working and which ones need improvement. Understanding the key factors and its magnitude determining profitability assists managers in developing an effective profitability strategy for their company.

The insurance Profitability growth was fluctuated from time to time. For instance, the general insurance sector total profit of seventeen insurance companies have been earned in thousands birr of 245,704 in 2010, 252,071 in 2011, 402,609 in 2012, 586,782 in 2013, 751,175 in 2014 and registered 85%, 3 %, 60 %, 46 %, 28 % net growth respectively (NBE, annual report 2015).

In the initiation of unstable industry profit in increasingly complex private insurance companies, it has become authoritative that private insurance company's managers understand the variables that significantly relate to the profitability of insurance business in Ethiopia.

Empirical literature investigate on the determinants of insurers' profitability are resulted in dissimilar conclusions. For insurers', profitability of insurance company affected by actual mortality experience, investment earning, capital gains or losses, the scale of policyholder dividends, and federal and state taxes (Wright 1992). According to Swiss (2008), insurers' profitability is determined first by underwriting performance (losses and expenses, which are affected by product pricing, risk selection, claims management, and marketing and administrative expenses); and second, by investment performance, which is a function of asset allocation and asset management as well as asset leverage. A study conducted by Ahmed (2008), examined the determinants of insurers' profitability indicated that size, volume of capital, leverage & loss ratio are significant determinants of profitability. Khan (2013) investigate that leverage, size, earnings volatility and age of the firm are significant determinants of profitability while growth opportunities and liquidity are not significant determinants of profitability. Other studies conducted in the area of insurers' profitability (Curak, 2012; and Shiu, 2014) verified that there is a direct association between profitability of insurance companies and it's both internal and external determinants. Even though, all these and other researchers conducted study on this area, but the determinants of profitability have been debated for many years and unexplained issues in the insurance company finance literature.

2. Objectives of the Study

a. General Objective

The general objective of the study was to identify the determinants of profitability of private insurance companies in Ethiopia.

b. Specific Objectives

- ✚ To identify the firm specific factors that determines the profitability of private insurance companies in Ethiopia.
- ✚ To identify the macroeconomic factors that determines the profitability of private insurance companies in Ethiopia.
- ✚ To find out the relationship between the profitability and firm specific determinants.
- ✚ To find out the relationship between the profitability and macroeconomic determinants.
- ✚ To rank the determinants according to their degree of influence on insurance company's profitability with a view suggest best strategies to increases private insurance companies' profitability.

3. Research Hypothesis

H₁: Underwriting risk has significant impact on profitability of private insurance companies in Ethiopia.

H₁: Reinsurance dependence has significant impact on profitability of private insurance companies in Ethiopia.

H₁: Solvency ratio has significant impact on profitability of private insurance companies in Ethiopia.

H₁: There is significant effect between growths of gross written premium on profitability in private insurance companies' in Ethiopia.

H₁: Company size has significant impact on profitability of private insurance companies in Ethiopia.

H₁: Gross domestic product has significant impact on profitability of private insurance companies in Ethiopia.

H₁: Inflation has significant impact on profitability of private insurance companies in Ethiopia.

H₁: Interest rate has significant impact on profitability of private insurance companies in Ethiopia.

4. Research Methodology

a. Research Design

This research paper was based on casual research design through quantitative approach, composed of econometric model to estimate and determine the parameters on profitability of private insurance companies in Ethiopia.

b. Population

A population is the total collection of elements about which the researcher wishes to make some inferences; Cooper and Schindler (2001). The population of this study is consisting of 17 private insurance companies incorporated under the Companies' Act and licensed under the National Bank of Ethiopia.

c. Data source and method of data Collection

Firm's specific data was obtained from the financial statement of each company, which also include ratio on rate of return on asset, underwriting risk, reinsurance dependency, solvency ratio, premium growth and company size and macroeconomic data was obtain from the annual report of National bank of Ethiopia and the Central Statistical Office.

d. Sample Design

The study was based on the panel of private insurance companies operating in the years 2005–2015 with non-probability judgment sampling design. To balance the panel data the number of sample was eight private insurance because newly emerging insurance company doesn't satisfy the needed 10 year data for regression and it was taken maximum of N cross sectional units or observations and a maximum of T time periods. This means each cross-sectional unit was the same number of time series observations. The selected private insurance companies were

Awash, Global, Nile, Nice, Africa, Nib, Nyala and United insurance company.

5. Model Specification

The following general multiple regression models is adopted from different studies conducted on the same area and the functional form of the model is;

$$ROA = \alpha + \beta_1(UR)_{it} + \beta_2(RD)_{it} + \beta_3(SR)_{it} + \beta_4(PG)_{it} + \beta_5(CS)_{it} + \beta_6(GDP)_{it} + \beta_7(I)_{it} + \beta_8(IR)_{it} + \epsilon$$

Where:

ROA = Dependent variable Return on total assets; Net Profit before Tax/ Total Assets

UR = Underwriting Risk

RD = Reinsurance Dependence;

SR = Solvency Ratio; Total Liabilities/ Total Assets

PG = Premium Growth

CS=Size of companies; Natural log of Total Assets

GDP = growth rate of GDP

I = Inflation

IR= Interest Rate

ϵ = is the error component for company i at time t assumed to have mean zero $E[\epsilon_{it}] = 0$

α = Constant or interpretation of the parameters

$\beta = 1, 2, 3 \dots 8$ are the slope of the coefficient or parameters will be estimate

$i =$ Insurance company $i = 1 \dots 9$; and $t =$ the index of time periods and $t = 1 \dots 10$

6. Results and Discussions

Table 1: Descriptive Statistics of panel data of private insurance companies for a period of 2005-2015

Variable		Mean	Std. Dev.	Min	Max	Observations
ROA	overall	6.063474	53.43209	-0.0471	0.478	N = 80
	between	16.88164	0.05683	47.8433		n = 8
	within	51.01437	-41.78359	436.220		T = 10
UR	overall	0.628165	0.1609767	0.13220	0.8952	N = 80
	between	0.120759	0.41349	0.80273		n = 8
	within	0.113982	0.346875	0.94505		T = 10
CS	overall	18.88860	0.883644	16.5266	20.2944	N = 80
	between	0.650330	17.66427	19.4595		n = 8
	within	0.637243	17.68698	20.1667		T = 10
PG	overall	0.242345	0.1892074	-0.0980	0.8444	N = 80
	between	0.053727	0.16677	0.31599		n = 8
	within	0.182323	-0.130745	0.79468		T = 10
RID	overall	11.17602	98.59352	0.0759	0.882	N = 80
	between	31.15956	0.1085	88.2919		
	within	94.12957	-77.04002	804.884		T = 10
SR	overall	0.764933	0.3607306	0.1052	1.52	N = 80
	between	0.283904	0.22577	1.20035		n = 8
	within	0.242295	0.2475637	1.37960		T = 10
GDP	overall	11.21913	12.2383	0.0982	0.12604	N = 80
	between					n = 8
	within					T = 10
IF	overall	0.162125	0.1123	0.028	0.3641	N = 80
	between					n = 8
	within					T = 10
IR	overall	5.01	0.7146637	3.97	5.77	N = 80
	between					n = 8
	within					T = 10

Source: stata 11 output for descriptive statistics of panel data

As indicated in the above table, the profitability measures (ROA) shows that Ethiopian insurance company achieved on average a positive before tax profit over the last ten years. For the total sample, the overall mean of ROA was 6% with a maximum of 47.8 % and a minimum of -4.7 %. That means the most profitable insurance company among the sampled earned 47.8 cents of profit before tax for a single birr invested in the assets of the firm. On the other hand, not profitable insurance company of the sampled lost 4.7cents of profit before tax for each birr invested in the assets of the firm. This clearly illustrates the disparity of rates of return earned by

insurance companies'. Regarding the standard deviation, it means the value of ROA deviate from its mean to both sides by 53.4 percent which indicate there was high variation from the mean. This implies that private insurance companies need to optimize the use of their assets to increase the return on their assets.

Underwriting risk variable, as proxies by losses incurred divided by annual premium earned; the overall mean of incurred claims to earned premium ratio was 62.8 percent. This implies that on average, most insurance companies from the sample paid 62.8 percent loss incurred out of the total premium earned per year which was favorable as compared with acceptable standard of around 70%. The highest ratio of losses incurred to earned premium value was 89.5 percent which is above the maximum standard of 70%, but the minimum value for a company in a particular year was 13.2 percent. The means value of underwriting risk overall deviate from its mean to both sides by 16 percent. This indicates that there is high variation in underwriting performance in private insurance company in Ethiopia during the study period.

Logarithm of total asset is used as proxy to the size of the insurance company and its mean of the logarithm of total assets over the period 2005 to 2015 was 18.88. Size of insurance companies was highly dispersed from its mean value with the standard deviation of 0.88. The maximum and minimum values were 20.29 and 16.52 respectively.

The average value of the growth variable as proxied by change in gross written premium was 24.2 percent. This implies that on average, the insurance companies' gross premium increased by 24.2 percent over the study period. While the accepted value of premium growth range is between -33% and +33%, the maximum & minimum values of premium growth were 84.44 & -9.8 percent respectively. This high increase and decrease in premium growth for a company in a particular year indicates that unstable premium underwritings.

The outputs of the descriptive statistics of panel data indicate that the mean of reinsurance dependency as proxied by premium ceded to total asset was 11.17%. This means that on average 11.17 percent of gross premium collected as percentage of total asset was ceded to reinsurance which is below the standard of around 30%. The maximum value of premium ceded ratio was 88.2 percent and a minimum value of 7.6 percent. The minimum ratio of premium ceded indicate that the lower risk of dependency on reinsurance, but the higher will be the exposure of the capital base to unforeseen above average losses and catastrophe.

The average value for solvency ratio as measured by net asset to net written premium was 76.4 percent. The standard deviation is 36 percent, maximum of 1.2 and the minimum of 0.10 which is higher than the minimum requirement of 20 percent.

Regarding GDP, the mean value of real GDP growth rate was 11.2% indicating the average real growth rate of the country's economy over the past 10 years. The maximum growth of the economy was recorded in the year 2005 (i.e. 12.6%) and the minimum was in the year 2013 (i.e. 9.8%).

Finally, other variable employed in this study, time deposit weighted average interest rate, the mean value 5.01 with the maximum of 5.77 and minimum was 3.97. This indicates that the financial market in the country during the period of 2005 to 2015 remains stable.

a. Regression Results and Discussion

Table 2 below reports regression results between the dependent variable (ROA) and explanatory variables. Under the following regression outputs the slop of the coefficient of explanatory variables negative and positive; it indicates that each variable's level of influence on the dependent variable. P-value indicates at what percentage or precession level of each variable is significant.

In the fixed effect Within Estimation the coefficient of determinant (R^2) value may be incorrect, so that from the regression result Prob> F value used for measure the overall significance level of the model and all the coefficients in the model. The F value indicates that all the coefficients in the model are different than zero; the F value is 0.0023 and this number is <0.05 in model this implies that total variability of determinant of private insurance company's profitability was explained by the variables in the model. Thus these variables collectively, are good explanatory variables to identify the determinant of private insurance companies' profitability in Ethiopia.

Table 2: Fixed-effects regression result

Fixed-effects (within) regression Number of obs= 80					
Group variable: Year		Number of groups =		8	
R-sq: within = 0.8610		Obs per group: min =		10	
between = 0.8403		avg =		10	
overall = 0.7712		max =		10	
				F(7,63) = 3.19	
Corr(u _i , X _b) = -0.520		Prob> F = 0.0023			
ROA	Coef.	Std. Err	t	P> t 	[95% Conf. Interval]
UR	-.159424	.0827867	-1.98	0.019	-.3248601 .0060121
CS	.004782	.0201176	-2.24	0.011	-.0449839 .0354199
PG	.0407046	.0729156	3.56	0.009	.1864148 .1050057
RID	.0000367	.0001175	0.31	0.756	-.0001981 .0002716
SR	-.0117739	.0435828	2.27	0.008	-.0753193 .0988672
GDP	.4761019	.000102	4665.40	0.000	.475898 .4763058
IF	-.0000259	.0000411	-0.63	0.531	-.0000563 .000108
IR (omitted)					
_cons	-.2265348	.3743695	-3.11	0.007	-.521583 .9746525
Sigma_u .04178746					
Sigma_e .0246175					
rho .16321587 (fraction of variance due to u _i)					
F test that all u _i =0: F(9, 63) = 4.21			Prob> F = 0.0029		

Source: stata 11 output for Fixed-effects regression

The fixed effect model assume that individual specific effect is time invariant and considered a part of the intercept, u_i is allowed to be correlated with other regressors. The result $\text{Corr}(u_i, X_b) = -0.520$ shows that the errors u_i are correlated with the regressors in the fixed effects model and the result rho 16.3% of the variance is due to differences across panels.(Intra-class correlation).

The decision rule for p-value and t-values; two-tail p-values test the hypothesis that each coefficient is different from 0. To reject this, the p-value has to be lower than 0.05 (95%), and t-values test the hypothesis that each coefficient is different from 0. To reject this, the t-value has to be higher than 1.96 (for a 95% confidence).

Table 2 shown in the above p-value and t-values 0.019 and -1.98 for the underwriting risk ratio have significant influence on profitability and the slop of the coefficient is negative which implies that underwriting risk ratio has negative effect on profitability. Variable company size p-value and t-values 0.011 and -2.24 shows that significant positive influence on profitability, in the variable premium growth p-value and t-values 0.009 and 3.56 shows that significant positive influence on profitability, p-value and t-values 0.008 and 2.27 for the solvency ratio significant negative influence on profitability, reinsurance dependency, and inflation rate are no influence on profitability because p-value and t-values test the hypothesis that each coefficient is different from 0, but p-value and t-values for the three variable was 0.756 and 0.31, and 0.531 and 0.63 respectively and this implies that acceptance of null hypothesis. Finally, interest rate which measured by time deposit weighted average was omitted from the model, it implies that no need of variable interest rate include in the model it is not relevant to count as a determinant of profitability for private insurance company in Ethiopia.

b. Discussion

Underwriting risk: - The underwriting risk emphasizes the efficiency of the insurer's underwriting activity and the exposure to financial loss resulting from the selection and approval of risks to be insured. It is a risk of losses

from underpriced products, insufficient volume of premium, improper underwriting controls, and the development of new products that are not properly priced. The coefficient of underwriting which is measured by claim incurred to earned premium ratio was negative and statistically significant at 5% significance level. The results indicate that low underwriting risk produce positive effect on profitability. It implies that higher underwriting risk increases the operating ratio, indicating adverse effect on the firm's profitability. This finding is consistent with previous studies Burca and Batrinca (2014). They concluded that underwriting risk has a negative influence on the insurer's profitability, since taking an excessive underwriting risk can affect the company's stability through higher expenses.

Thus, this study supports the hypothesis that significant negative impact of underwriting risk on insurance companies' profitability.

Company size:-Regarding the variable company size of the insurer it can be stated that, it is much harder for smaller companies to write insurance premiums than for bigger ones since smaller company cannot secure their clients in the cases of aggregate uncertainty or big catastrophe event. Larger insurers can achieve operating cost efficiencies through increasing output i.e. they are able to realize economies of scale especially in terms of labor costs, which is the most important factor for delivering insurance services. Company size is computed as logarithm of total assets of the insurance company. The regression result of this study show that the variable size is positively related to profitability and statistically significant at the 5% level of significance ($p\text{-value} = 0.011$). This indicates that profitability of large insurance companies is better than small size companies. Profitability is likely to increase in size, because large insurance companies normally have greater capacity for dealing with adverse market fluctuations than small insurance companies and have more economies of scale in terms of the unit cost, which is the most significant production factor for delivering insurance services, complex information systems and a better expenses management. The finding of this study is congruent with, Malik (2011) and Chen (2014). They revealed that large corporate size enables to effectively diversify their assumed risks and respond more quickly to changes in market conditions.. Hence, this study supports the hypothesis that firm size is a significant positive determinant of insurer's profitability in Ethiopia.

Premium growth:-Premium growth measures the rate of market penetration. Concerning the premium growth, the regression results in this research imply that the relation between premium growth and profitability is positive and significant at 5% significances level ($p\text{-value} = 0.009$). The positive coefficient of growth in writing premium indicates a positive relationship between growth in writing premium and profitability. It implies that Insurance companies underwrite more premium over the years have better chance of being profitable for the reason that they gain return from premium collected when the excessive attention on marketing to grow premiums with a proportionate allocation of resources towards the management of their investment portfolios is given. The result of the study supports the findings of Chen and Wong(2004), but their found is not significantly different from zero. This result clearly supports hypothesis that premium growth has a positive and significant impact on profitability of insurance companies in Ethiopia.

Reinsurance dependence:- Insurance companies usually take out reinsurance cover to stabilize earnings, increase underwriting capacity and provide protection against catastrophic losses, nevertheless it involves a certain costs. The coefficient of reinsurance dependence which is measured as ratio of premiums ceded in reinsurance to total asset was negative, but statistically insignificant even at 5% significance level ($p\text{ value} = 0.0756$) indicating that its influence is negligible. The insignificant parameter indicates that the reinsurance dependence does not affect Ethiopian insurance profitability. Referring to previous studies, the results concerning reinsurance dependence are mixed. Shiu (2014) found a negative relationship between reinsurance dependence and insurers profitability, but it is not significant which is consistent with this study. However, Ying lee (2014) found a significant negative relationship between reinsurance dependence and insurance profits. Thus this study unable to accept the null hypothesis which states there is no impact of reinsurance dependence on Ethiopian insurance company's profitability.

Solvency ratio (Capital Adequacy):- Solvency ratio is one of the indicators of financial soundness. Insurance companies with higher solvency ratio are considered to be sounder financially. Financially sound insurance companies are better able to attract prospective policyholders and are better able to adhere to the specified underwriting guidelines. By adhering to the guidelines, the insurance companies can expect a better underwriting result. The coefficient of solvency ratio which is measured by net assets to net written premiums was negative and statistically significant at 1% significance level ($p\text{-value} = 0.008$). This means that the more solvent a company is (i.e. more equity or less underwrite premium), the less profitability it will have. The result indicates that insurance companies increase underwrite premium to increase the underwriting profit without increasing their capital, which may results an excess of liabilities over assets, sometimes referred to as capital deficit. It follows then that the smaller the equity base in relation to the liabilities of the company, the lower the company's ability to absorb unforeseen shocks and unable to guarantee repayment to all claimants.

Assuming that the company is in its first stage, the manager will choose to invest using the retained earnings in order to increase profitability. This means that the internal financing will continue until the retained earnings reach

the amount of zero the faster the growth, the more external financing firms will use. However, this increase in external financing is mainly through an increase in the liabilities, as the increase in external equity financing was not found significant. As a company grows, the solvency ratio will thus become smaller. Therefore one can conclude that solvency ratio was a key driver of profitability of insurance companies in Ethiopia.

Gross domestic product: - Gross domestic product is the market value of all finished goods and services produced in a country within a specified period, mostly one year. It is a gauge of economic recession and recovery and an economy's general monetary ability to address externalities. Oshinloye et al (2009) showed that no country can experience meaningful development without the presence of formidable insurance industry, thereby making insurance business in any nation indispensable irrespective of its quota to the gross domestic product. According to Ezirim (2002), insurance industry is perceived as an indispensable tool of economic progress, growth and development. Growth rate of GDP reflects economic activity as well as level of economic development and as such affect the various factors related to the supply and demand for insurance products and services. If GDP grows, the likelihood of selling insurance policies also grows and insurers are likely to benefit from that in form of higher profits. However, result of this study shows that a statistically significant at 1% significance level (P-value 0.0000) indicating that growth in economic condition measured in terms of gross domestic product has positive impact on profitability of Ethiopian insurers for the study period. The finding of this study is congruent with (Naveed, 2008) and Lee (2014). But their finding was not significantly different from zero. The current study found that economic growth is positively affect the insurer's profitability in Ethiopia and thus the conclusion about the impact of Ethiopian economic growth on insurers' profitability.

Inflation:-The inflation could affect insurance companies' profitability influencing both their liabilities and assets. In expectation of inflation, claim payments increases as well as reserves that are required in anticipation of the higher claims, consequently reducing technical result and profitability. The coefficient of inflation was negative, but it was not statistically significant, (p-values 0.531), thus the effect of inflation on Ethiopian insurers' profitability is not significant. The result suggested that inflation is not a determinant of insurers' profitability in Ethiopia. But inflation may have negative impact on insurer's profitability because inflation affects results of underwriting premiums, since policies are typically not adjusted periodically. For instance, the price of automobiles or spare parts increased from time to time, but the price of rate chart is not adjusted for underwrite premiums as a price increased, which resulting in costs increased faster than revenues. A negative influence of inflation on insurers' profitability was confirmed in empirical studies by Shiu (2014) and Pervan (2012) but is not significantly different from zero.

7. Recommendations

On the basis of the findings of this study, the researchers have drawn the following recommendations:

- ✚ The major activity of insurance company is underwriting, private insurance companies should reduce the impact of underwriting risk (amount of losses). To reduce underwriting risk firstly, the private insurance companies improve their underwriting performance through the techniques of risk and product selections with geographical approaches and different pricing strategy accordingly the geographical and specific historical ground to determine the price of the same risk class or others. Secondly, to reduce the amount of losses the company should also increase claims handling practice with continues improvement on claim leakage management in both side, which is from the company employee (the engendering, inspection and clime management department) and from the customer side, to do this the company should develop immediate investigation mechanism on reported clime with crossed confirmation mechanism, for the employee, when conducting post-risk assessment the employee should report online picture and video to confirm the post-risk assessment therefore he/she send the back office assessor or data base from the clime site at a time, for the customer, the clime report or declaration day should reasonably limit to notice the loss. This mechanism helps the company to know the genuine of the clime and its assessment. Thirdly, to reduce the impact of underwriting risk private insurance company should gathering sufficient information based on the risk to readjust the existing risk price, and it also help detail about subject matter risk assessment before issuing the policy. However, inflation rate was negative relation with profitability and insignificant but claim settlement directly related with risk cost, regarding this, inflation affect the price of the new good by increasing some amount, therefore, inflation may affect profitability via claim payment indirectly, so that, private insurance company should take care of inflation rate to count for the inflation by adding on the contribution margin with considering the amount of inflation rate at the time of claim handling.
- ✚ Private insurance company should improve underwriting share in favor of economic growth of the country vie identifying the potential and priority direction of the overall economic activity and growth of the country. And it should include new insurance services development based on the economic direction.
- ✚ Private insurance company should increase their company asset. An increase in total assets such as the establishment of more branches and the adoption of new technologies enables an insurer to underwrite

more policies which may increase the underwriting profit and the total net profit. In addition, increasing asset like branch and toying Crain also minimize the cost of clime.

- Finally, the study sought to investigate the determinant of profitability in private insurers' company in Ethiopia. However, the variables used in the statistical analysis did not include all factors that can affect profitability of private insurers' company in Ethiopian it only include few firm specific and macroeconomic quantitative variables. Thus, future research shall conduct on the issue like impact of government regulation policy and other directives and non- financial determinant of insurance profitability such as management quality, efficiency and productivity and etc.

References

- Ana, M. &Ghiorghe, B. (2014), *determinants of Financial Performance in the Romanian Insurance Market*, International Journal of Academic Research in Accounting, Finance and Management Sciences Vol. 4
- Anderson, D. and Williams, T. (2008), *Statistics for business and economics*, Thomson South- Western
- Breusch, T. S., and A. R. Pagan. 1980. "The Lagrange Multiplier Test and its Applications to Model Specification in Econometrics." *Review of Economic Studies*, 47(1):239-253.
- Browne, M.& Hoyt, R. (1999), *Economic and market predictors of insolvencies in the life- health insurance industry*, The Journal of Risk and Insurance
- Chen, L. (2014), *effects of firm specific factors and macroeconomics on profitability of property-liability insurance industry in Taiwan*, Asian Economic and Financial Review
- Daniel M. &Tilahun A (2013), *firm specific factors that determine insurance companies' performance in Ethiopia*, European Scientific Journal vol.9
- Hailu Zeleke, 2007, *Insurance in Ethiopia: Historical Development, Present Status and Future Challenges*. Addis Ababa: Master Printing Press
- Hifza, M. (2011), *determinants of insurance companies' profitability: an analysis of insurance sector of Pakistan*, Academic Research International, Volume 1
- Kabajeh, AL Nu'aimat and Dahmash, 2012, 'The Relationship between the ROA, ROE and ROI Ratios with Jordanian Insurance Public Companies Market Share Prices', International Journal of Humanities and Social Science, vol. 2, no. 11, pp. 115-120
- Kaguri, 2013, 'Relationship between firm characteristics and financial performance of life insurance companies in Kenya', MSC thesis, University of Nairobi
- Khan, S, Bilal, J. and Tufail, S. (2013), *Determinants of profitability panel data evidence from insurance sector of Pakistan*, Elixir Fin. Mgmt.(Elixir International Journal)
- Kozak (2011), *determinants of profitability of nonlife insurance companies in Poland during integration with the european financial system*
- Naveed, A., Zulfqar A., Ahmad, U. (2011), *Determinants of Performance, A Case Of Life Insurance Sector of Pakistan*, International Research Journal of Finance and Economics, Euro journals Publishing
- Outreville, F. (1990), *the economic significance of insurance markets in developing countries Risk Insurer*
- Rudolf, E. (2001), *Profitability of the Non-Life Insurance Industry, its Back- to-Basics Time*, Swiss RE, Sigma, No.5
- Shiu, Y. (2004). *Determinants of United Kingdom general insurance company performance*. British Actuarial Journal, 10 (5), 1079-1110.
- Ward, D. and Ralf Z. (2000), *does insurance promote economic growth? Evidence from OECD countries* Journal of risk and insurance. (4)
- William H. Greene and Dan Segal (2004), *Profitability and Efficiency in the U.S Life Insurance Industry*, Journal of Productivity Analysis, Kluwer Academic Publisher, Netherlands.
- Yuvaraj& Abate G. (2013), *performance of insurance companies in Ethiopia*, International Journal of Marketing, Financial Services & Management Research vol.2011 – issue 1