

Empirical Evidence on Influencing Factors of Profitability of Private Insurances in Ethiopia

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Abstract: This study was primarily conducted to investigate influencing factors for insurance companies specifically for private insurance operating in Ethiopia. To attain the objective both industry-specific and macro-economic factors include the ratio of liquidity, leverage, the volume of capital, age of the insurance, underwriting risk, premium growth, market share, inflation, and economic growth. The study included ten insurance companies with operations from 2011 to 2020. Secondary data was collected from the Ethiopian central bank (National Bank of Ethiopia). An explanatory research design with a mixed approach was used for this study. Furthermore, this study employed OLS to estimate a multiple regression model constructed through E-views 10 software after all the necessary diagnostic tests were undertaken. The finding indicates liquidity, firm premium growth, the age of the company, and market share have significant positive effects on insurance profitability. Whereas, underwriting risk, leverage, the volume of capital, and inflation reveal significant but adverse effects on insurance profitability. The study suggests insurances companies adopt different techniques such as improving loss handling mechanisms, assessing and gathering adequate information about the insured before selection, and marketing managers should pay a great deal of attention to maximizing market share through the use of user-friendly information technology for both the insurance and its customers.

Keywords: Profitability, Private Insurance Company, Panel, Ethiopia

1. Introduction

1.1. Background

Financial institutions are an integral part of each economy in the world. In the service-based economy, insurance is one of the service sectors that play a significant part in the growth and economic development of the country's economy [1]. Insurance companies primarily play the role of transfer and reduction of non-diversifiable risk from one party to the other, such as general and life insurance of the firm. Furthermore, it also plays financial intermediation in terms of channeling financial resources from one to the others [2]. Insurance company's management is a key indicator of profitability and crucial for the increased competitiveness of the company that operates in the industry [3].

The insurance industry plays a vital role in risk management and is involved in both direct and indirect

investment activities in the economy, directly and indirectly; Contribute to the economy of any particular country beneficially. Furthermore, insurance companies foster economic growth, reduction of transaction costs, efficient resource allocation, facilitate fund transfer, and spread of financial loss [4].

The variation of profit in the industry is influenced by both external and internal which affect each insurance company that operates in the industry. Internal variables, which are specific firm features under the control of the company's corporate management, and external factors, which are related to the industry, and the external factors regarding connection to the industry and macroeconomic environment which is not under the control of the corporate management but identifying and knowing of those factors is a key issue for the company to develop a strategy that avoided loss and keeping their profitability position. Therefore, the insurance sector in a financial system becomes the prerequisite for

long-term financial stability, economic growth, and development in the given country.

In Ethiopia, there are now 18 insurance companies, 17 of which are private insurers while 1 insurer state-owned whose branch network increased to 616 from 574 in the year 2020. The country insurance firms total capital reached Birr 10.3 billion compared to Birr 8.5 billion a year ago. In Ethiopia, private insurance firms accounted for 71.7 percent of the insurance industry's total capital (NBE, 2021).

Despite the fact that various studies on the insurance industry have been undertaken, the literature has revealed that the majority of the studies conducted lack consistency. For instance W. B. et al. [5] revealed a significant positive influence between performance and firm liquidity. However, [7, 8] discovered an inverse but significant link between firm profitability with liquidity. The same issues happen for leverage of the company has positive effect confirmed by Mazviona, W. B. et al. [5]. Contrarily, [9, 10, 14] found an inverse but significant effect of leverage on the performance of the insurances firms. Even some studies like [13, 20] conclude there is no significant relationship between the two variables.

In addition to the empirical inconsistency mentioned above, this study was conducted by incorporating additional basic industry variables like market share to test the existence of the relative market power (RMP) hypothesis in the selected private insurance companies operating in Ethiopia using recent information [25].

1.2. Objectives

To examine the influence of macro-economic factors on the profitability of selected Ethiopian private insurance companies.

To evaluate the effect of insurance-specific variables the profitability of selected Ethiopian private insurance companies.

To examine the effect of company-specific factors on the profitability of selected Ethiopian private insurance companies.

1.3. Study Significance

This study was mainly conducted to identify the influencing factors affecting the profitability of selected Ethiopian private insurance companies provide helpful information's different parties and add to the stock of knowledge on the area. To make specific this study was conducted to assist the respective manager of the insurance companies operating in Ethiopia to know and identify their position in the industry and take necessary measures to enhance the profitability of the companies. Additionally, this study assists to make a better-informed decision of the insurance companies as well as aids existing investors in making a cognizant decision on annual meeting on their investment.

2. Literature Review

2.1. Theoretical Review

The shareholder value and financial performance theories

were among the hypotheses examined in this area.

2.1.1. Shareholder Value

The theory of Shareholder Value essentially emphasizes on maximizing shareholders' value and contends the owners are ultimately possessors of the asset of the company [24]. It assumes that the measurement for an asset could be valued using dividends and share price as a measurement. The ultimate aim of measuring the organizational motivation as well as signaling investors on how well the organization performs is maximizing shareholders' value [25].

The problem that arises from only emphasizing in maximizing shareholders' value has been claimed by Michel porter in the 1990s to bring about economic instability and insecurity. The ruthless search for return-on-investment despite the consequence in pursuit of it was the base for the corporate scandals in the world in the last couple of decades. Furthermore, the corporate bailout in the aftermath of the facial crisis has not only impacted the interest of the shareholders but also the adversity was borne by the society [26].

The difficulty in the metrics of non-financial measures and limited guidance from policymakers with that regards gives rise to reporting issues that made non-financial measures difficult to rely on [27]. However, the alignment of financial performance and sustainability is ever apparent with share price becoming an essential indicator of company's performance reflecting the value of the company including it is potentially going concerned made the use of Shareholder Value measurement preminent in the use.

2.1.2. Financial Performance Theory

Financial performance is a subjective measurement of how the organization uses the asset at its disposal to earn an income. Fligstein & Taekjin [24] mostly return on assets (RoA) which indicates the use of it is an asset to generate earning while return on equity (RoE) measures how much the profit is made from the interest of shareholders. The profitability of insurance companies is determined by underwriting insurance and investment researchers such as Malik [3] contend the use of ROA is a better measurement for insurance companies [26].

2.2. Empirical Review

A study conducted by Mingizem [15] on factors that determine the profitability of insurance companies that operate in Ethiopia with the case of dire dawa city. Descriptive research designs and data were gathered from both primary and secondary sources. Leverage, size, tangibility, firm premium growth, and management efficiency revealed significant variables that affect profitability in the given period of study.

Dayganto & Alemu [16] examine insurance company's profitability and their factors in Ethiopia. The researchers used a mixed research approach and a causal research design in their investigation. The researchers used Purposive sampling and secondary data sources. The researchers used SPSS version 20.0 to analyze the collected data and the

ordinary least square model employed for the study. The study result indicates that underwriting risk, solvency ratio, premium growth, GDP, and inflation rate highly determine the performance of Ethiopian insurance businesses.

A study conducted by Bhattarai [17] to investing influencing factors that affect the financial performance of the insurance companies in Nepalese. A 10 sample insurance companies were selected with the panel data collected from 2012/13 to 2017/18. As independent variables, Expenses Ratio (ER), Financial Leverage (FL), and Size of Company (LnTA) were used to assess performance measured by ROE. The findings revealed that the expenditures ratio has a positive relationship with the other independent variables. According to the findings, financial leverage and size are important predictors of profitability in Nepalese insurance businesses.

Taye [19] on the other hand examines factors affecting insurance the company's financial performance in Ethiopia. Explanatory research design and purposive sampling techniques were used to select 12 insurance companies. Data from a secondary source was used and collected from the Ethiopian national bank from the period 2011 to 2016. For data analysis, a Random Effect econometric model was used in addition to descriptive statistics. The OLS model was used to identify the factors and the findings show that the volume of capital, current inflation, and Lag GDP rate have a significant positive effect on performance measured by ROA. On the other hand, lag inflation, exchange rate as well as solvency ratio found a negative significant influence on performance.

Mazviona, W. B. et al. [5] examined factors affecting Zimbabwe insurance companies' performance. They used the secondary data from twenty short-term insurance firms covered from 2010 to 2014. The study was used both factor and regression analysis techniques. The finding indicates leverage, liquidity, claim ratio, and size of the insurance companies affect performance significantly.

Another study was conducted by Teklit & Jasmindeep [6] to identify the influencing factors that affect the performance of Ethiopian insurance firms. The study identifies the performance of insurance firms is influenced by their size, liquidity, capital adequacy, and GDP rate. Leverage and loss ratios, on the other hand, did not affect performance during the given period.

Hana [10] investigates both internal and external factors that influence insurance company profitability in Ethiopia. ROA was used to determine profitability, and panel data from 2005 to 2014 was evaluated for nine insurance businesses. The fixed effect approach and several linear regression models were used. Their findings revealed that internal factors such as leverage, business expansion, and asset tangibility have a major impact on insurance profitability over time. In addition, the leverage and tangibility of the asset had negative consequences on insurance company profitability. Inflation has a negative and considerable influence on insurers' profits due to macroeconomic variables.

Behailu [12] examined influencing factors that affect the

profitability of insurance companies in Ethiopia. The study employed a quantitative method with panel data from nine insurance firms spanning ten years from 2006 to 2015. He applied a linear regression model to his research. Data were analyzed with software Eviws8. The regression result shows that loss ratio, size, and leverage have statistically effect on performance

Tegegn, M., et al. [20] investigated the factors determining insurance profitability in Ethiopia. Nine listed insurance companies in Ethiopia were chosen using a purposive sampling technique. The data was gathered from a secondary source and covered the years 2005 to 2016. The results of the fixed effect regression demonstrate that size and premium growth have a large positive impact on insurance performance, whereas age and liquidity have a negative impact on insurance firm profitability.

3. Methodology

The researcher employed a quantitative research approach and explanatory design method to fulfill the study's objectives. According to the NBE, there are currently 18 insurance companies, with 17 of them being private and one being state-owned as of June 2021. Using a non-probability purposive sampling technique, ten private insurance companies operating in Ethiopia were chosen as the study sample, with the working period ranging from 2011 to 2020 G. C. The basis for selecting these 10 private insurances from the target population in accordance with the sampling technique in question is based on ownership structure (only private insurance companies were included in this study) and time of establishment (only insurances with eleven or more years of experience in the insurance operations were included). This is done because private insurances under this period have enough experience and complete financial statements.

3.1. Data Source

A secondary source of data was employed by the researcher to meet the study's goals. The data for this study came primarily from secondary sources, such as audited balance sheets and income statements from a few insurance companies. Secondary data were gathered from audited financial statements (income statement and balance sheet) of each private insurance company in the sample, as well as numerous NBE and MOFED journals and publications for macroeconomic data from the previous ten years (2011-2020). In addition, the researcher used a panel data type, which combines cross-sectional (inter-firm) and time-series data features (inter-period).

3.2. Model Specification

The ordinary least square (OLS) model was employed to assess the study hypothesis in order to meet the study's goals. A Panel Model Approach was used to calculate profitability using Return on Asset (ROA) as a function of liquidity,

leverage, capital volume, age, underwriting risk, premium growth, market share, inflation, and GDP. The following is the multiple linear regression equation for the ten private

insurance companies for the period 2011 to 2020, which takes into account seven independent variables:

$$ROA_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 LEV_{it} + \beta_3 VOC_{it} + \beta_4 AGE_{it} + \beta_5 UR_{it} + \beta_6 PG_{it} + \beta_7 MS_{it} + \beta_8 INF_{it} + \beta_9 GDP_{it} + \varepsilon$$

Where; ROA_{it} = profitability of insurance companies

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9$ = Regression coefficients

β_0 = Constant/Y intercept,

ε is error term.

Table 1. Summary of variables measurement.

| Symbol | Variables measurement | Expected sign |
|--------|-----------------------------------------------------------------------------------------------|---------------|
| ROA | Return on asset measured by net income/total asset | |
| LIQ | Liquidity measured by Current assets divided/ current liabilities. | + |
| LEV | Leverage ratio measured by total debts divided/ total equity. | - |
| VOC | The volume of the company is measured by (total assets minus total liabilities). | + |
| AGE | Age (Current year minus year of establishment) | + |
| MS | Market share was measured as Company total premium/Industry Premium | + |
| UR | Underwriting risk measured by claim incurred divided/annual claim earned. | - |
| PG | Premium growth is measured as a year to year change in the new premium of insurance companies | + |
| INF | Inflation = $(I(t) - I(t-1)) / I(t-1)$ | - |
| GDP | Gross domestic product = $(GDP(t) - GDP(t-1)) / GDP(t-1)$ | + |

4. Result and Discussion

The diagnostic test was used by the researcher to determine if the results met the basic assumption or not. In this regard, all diagnostic tests were carried out and there was no problem observed.

Table 2. Regression result.

| | | | | |
|---------------------------------------------------|-------------|---------------------|-------------|----------|
| Dependent Variable: ROA | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Date: 11/28/21 Time: 06:19 | | | | |
| Sample: 2011 2020 | | | | |
| Period included: 10 | | | | |
| Cross-sections included: 10 | | | | |
| Total panel (balanced) observations: 100 | | | | |
| Swamy and Arora estimator of component variances | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 0.229106 | 0.047286 | 4.845092 | 0.0000 |
| LIQ | 0.047868 | 0.008340 | 5.739398 | 0.0000 |
| LEV | -0.048305 | 0.023612 | -2.045764 | 0.0437 |
| VOL | -0.019192 | 0.005118 | -3.749849 | 0.0003 |
| AGE | 0.029912 | 0.008159 | 3.666224 | 0.0004 |
| UR | -0.094190 | 0.016763 | -5.618994 | 0.0000 |
| PG | 0.017061 | 0.003198 | 5.334247 | 0.0000 |
| MS | 0.139203 | 0.043686 | 3.186430 | 0.0020 |
| INF | -0.183790 | 0.043500 | -4.225044 | 0.0001 |
| GDP | 0.002790 | 0.002258 | 1.235701 | 0.2198 |
| Effects Specification | | | S. D. | Rho |
| Cross-section random | | | 0.000000 | 0.0000 |
| Idiosyncratic random | | | 0.013323 | 1.0000 |
| Weighted Statistics | | | | |
| R-squared | 0.675384 | Mean dependent var | | 0.074086 |
| Adjusted R-squared | 0.642923 | S. D. dependent var | | 0.024807 |
| S. E. of regression | 0.014823 | Sum squared resid | | 0.019776 |
| F-statistic | 20.80564 | Durbin-Watson stat | | 1.508251 |
| Prob (F-statistic) | 0.000000 | | | |
| Unweighted Statistics | | | | |
| R-squared | 0.675384 | Mean dependent var | | 0.074086 |
| Sum squared resid | 0.019776 | Durbin-Watson stat | | 1.508251 |

Source: E-views 10 outputs

The linear function for the study regression equation in the table above is denoted as follows:

$$\text{ROA} = 0.229106 + 0.047868 (\text{LQit}) - 0.048305 (\text{LVit}) - 0.019192 (\text{VOLit}) + 0.029912 (\text{AGEit}) - 0.09419 (\text{URit}) + 0.017061 (\text{PGit}) + 0.139203 (\text{MSit}) - 0.183790 (\text{INFit}) + 0.002790 (\text{GDPit})$$

The coefficient intercept (α) is 0.229106 in the random effect panel data regression findings shown in the table above. This suggests that the average value of ROA would be 0.229106 if all explanatory factors were set to zero. Apart from that, the R-square and adjusted R-square values are 0.675384 and 0.642923, respectively. This means that 64.29 percent of the variation in the independent variables accounts for variation in the dependent variable.

This means Liquidity (LQ) Leverage (LV) Volume of capital (VOL), Age (AGE), Underwriting risk (UR), Premium growth (PG), Market share (MS), Inflation (INF), and GDP collectively explain 64.29 percent of the variation in return on asset (ROA). Other independent variables not included in this study model account for the remaining 35.71 percent of the variation in the change dependent variable. Furthermore, the F-statistics (an overall test of significance) take a value of 20.80 with a P-value of zero, indicating that the model is adequately fit and the explanatory variables are properly selected and used in this study. Because the P-value is 0.0000, the null hypothesis of F-statistics (an overall test of significance) that is equal to zero R-square is rejected at 1 percent. As a result, all of the explanatory variables had a statistically significant impact on the profitability of Ethiopian private insurance businesses.

4.1. Liquidity and Profitability

In the insurance industry, liquidity refers to an insurer's ability to meet its obligations, which include operating costs and payments for damages under insurance policies. In another word, it is the measure of the capacity of insurance to pay the immediate short-term credit and obligations to insurers without possessing or liquidating financial assets when they are due. According to the result indicated in the above table 2, the liquidity ratio exhibits there is a positive statistically significant correlation across private insurance profitability at the 1% significant level ($P=0.000$). Keeping everything else the same, if a 1% increase in liquidity increases profitability by 4.78%. The positive and significant result indicates that private insurance those that have more liquid assets will perform better than those that have fewer liquid assets. A low ratio of liquidity in insurance companies implies insurers will face difficulties meeting their short-term obligations like repaying to policyholders when the loss occurred than those with a more liquid asset. Therefore, private insurance companies should at least meet the minimum amount of liquidity required by NBE to meet their commitment to policyholders and to meet short-term creditors. This result is consistent with the studies of [5, 6, 13, 14] but inconsistent with [7, 8].

4.2. Leverage and Profitability

The amount of debt a company uses to finance its assets is

referred to as leverage. A corporation that has a substantial amount of debt compared to its equity is said to be highly leveraged. The result indicated in table 2 there is a significant statistical negative relation along with the profitability of private insurance at a 5% significant level ($P=0.0437$). If all other factors stay constant, a 1% increase in leverage reduces the profitability of private insurance by 4.83 percent. This means that debt financing reduces Ethiopian private insurance companies' profitability in the given period. Insurance firms with more debt have a lower market value, leading to the solvency problem. Besides highly levered insurances have less profit than low levered, the negative result supports the pecking order capital structure theory which under this study insurances that have high profit depend on their internally generated source of finance (retained earnings) than debt source of finance. This study's findings are in line with previous findings of [9, 10, 14] and it was contrary with [5].

4.3. Volume of Capital and Profitability

According to the regression results, the volume of capital has an adverse and significant impact on the profitability of Ethiopian private insurance companies and the beta coefficient was (0.019). This implies that when the volume of capital invested in the business increased by 1%, the Ethiopian private insurance companies' profitability would be decreased by 1.9%. This implies that if insurance companies invest more money or capital than is necessary, the profit or return on investment decreases. This also may indicate there is idle cash that is not invested appropriately; there is an asset management problem. As a result, the volume of capital has an inverse and significant association with the profitability of Ethiopian private insurance companies.

4.4. Age and Profitability

At a 1% significant level ($P=0.0004$), the age stated in the above table 2 has a positive and statistically significant link with the profitability of private insurance. Keeping all other factors unchanged, an increase of one year in age boosts the profitability of a private insurance firm in Ethiopia by 2.99 percent. This study indicates that as insurance businesses get older, they will bring their experience and will invest in research and development activities to expand their market share, which would increase the private insurance companies' profitability in Ethiopia. As a result, there is consistency with the studies of [13, 22].

4.5. Underwriting Risk and Profitability

The risk that the premiums received are insufficient to provide insurance coverage is called underwriting risk. This risk is emphasized to the risk associated with the underwriting activity of the insurance and the risk of

financial loss as a result of the selection and approval of risks to be insured.

According to the regression results, at a 1% significant level ($P=0.0000$), a statistically negative relation is observed between underwriting risk with the profitability of private insurance companies in Ethiopia. Keeping all other factors unchanged, a 1% increase in underwriting risk reduces the profitability of Ethiopian private insurance by 9.4%. This implies that the prevalence of underpriced insurance products and insufficient premium amounts leads to a loss in profitability in Ethiopian private insurance companies which has consistency with [16, 23].

4.6. Premium Growth and Profitability

The premium increase has a favorable impact on the profitability of Ethiopian private insurance firms, according to the regression results, with a value beta coefficient of 0.017. This means that a 1% rise in premium growth would result in a 1.7 percent improvement in profitability for Ethiopian private insurance companies. This means that, assuming all other factors remain constant, when the company's premium rises, its market share rises, its customers rise, and its profit rises both directly and indirectly. This finding is similar to [10, 16, 20].

4.7. Market Share and Profitability

In the insurance industry, market share refers to how much of an insurance company's gross written premium is compared to the industry's gross written premium over a given period. Result indicated in the above at a 1% significant level ($P=0.0020$), market share was a positive and statistically significant relationship with the profitability of private insurance. Keeping all other factors fixed a 1% increase in market share boosts private insurance profitability by 13.92 percent. The existence of the relative market power hypothesis in Ethiopia is suggested by the positive association between the market share of insurance firms and profitability. According to the theory of relative market power hypothesis if customers rely on the firm's position in the market share as an indicator for quality and if the firms have the market power by advantage of their position in the market, allowing them to earn positive profit. Therefore, private insurance in Ethiopia with higher market shares in the insurance industry shows better profit than those with less market share. This finding is in line with the findings of [12, 21, 22].

4.8. Inflation and Profitability

Inflation was one of the macroeconomic issues affecting insurance company profitability in Ethiopia. According to the regression results, at a 1% significant level ($P=0.0001$), inflation has an inverse and statistically significant influence on the profitability of Ethiopian private insurance firms. If all other factors remain unchanged, a 1% increase in inflation reduces the private insurance profitability of Ethiopia by 18.37 percent. This implies that, through claims and expenses,

inflation reduces the profitability of Ethiopian private insurance firms. It is also known that inflation affects insurance firms' assets in such that if inflation is on the rise, the interest rate also rises then this will affect the insurance fixed income investment adversely. This result is consistent with [16, 19] but contradicts with [21].

4.9. GDP and Profitability

Like inflation, GDP was another macroeconomic indicator that influenced insurance company profitability in Ethiopia. GDP had a positive but insignificant impact on the profitability of Ethiopian private insurance firm's profitability of Ethiopian private insurance firms, as evidenced by the regression result. Because the p-value is greater than 0.05, or 0.2198. This finding is in line with the finding of [14].

5. Conclusion

The primary goal of this research was to find out factors that influence the profitability of Ethiopian private insurance businesses. In this study, the dependent variable was profitability measured by return on asset (ROA) and there are nine explanatory variables namely, liquidity, leverage, the volume of capital, age, underwriting risk, premium growth, market share, inflation, and GDP used as predictor variables and ten private insurance companies were selected for ten years purposively. The finding indicates liquidity, firm premium growth, the age of the company, and market share have significant positive effects on insurance profitability. Whereas, underwriting risk, leverage, the volume of capital, and inflation reveal significant but adverse effects on insurance profitability.

Profitability and liquidity are linked in a positive and significant way. This means that private insurances in Ethiopia have enough cash on hand to meet their short-term debts and losses. More liquid companies have better performance than illiquid insurance companies operating in Ethiopia. On the other hand, leverage has a significant negative effect on private insurance performance in Ethiopia. This indicates that insurance companies may face difficulties of solvency for covering their long-term debt. These also indicate that companies that finance their financial needs are leveraged when we compare to those companies that finance from equity sources. This debt financing affects profitability significantly and negatively.

Capital volume has an adverse and significant impact on the profitability of Ethiopian private insurance companies. The majority of the time, the capital volume has a favorable impact on profitability. This is sometimes when companies inject and invest capital more than enough and needed it may affect the profitability negatively. This may be due to the absence of investing idle cash, and mismanagement of assets. The positive and significant relation between age and performance in private insurance indicates that when insurance companies exist in the industry had better profitability than the newer ones and companies that have

more experience and service life had better profitability than those that have less experience and age. This is because of economies of scale, better capital, the experience of the environment, more customers and branches, etc.

Underwriting risk has a significant negative impact on private insurance company profitability. This indicates a problem with underpricing, a reduced premium amount, and underwriting restrictions. The premium increase has a considerable and favorable impact on Ethiopian private insurance businesses' profitability. This means that as the premium amount grows from year to year, the companies' profitability rises. A company whose profit increases year to year had better profitability than those whose premium is decreasing at a certain limit.

A positive and significant relationship of market share with the profitability of private insurance had the evidence for the existence of relative market power theory which states that if customers rely on the firm's position in the market share as an indicator for quality and if the firms have the market power by advantage of their position in the market, allowing them to earn positive profit.

Inflation was a significant inverse impact on the profitability of Ethiopian private insurance firms. Since inflation is one of the macroeconomic factors it affects the whole industry, and insurance companies are also affected by this increase in the inflation rate. This implies that companies earn a better profit on a period the inflation rate is lesser than a period inflation rate is higher. The regression result also shows GDP has a positive but insignificant effect on the profitability of Ethiopian private insurance firms.

6. Recommendations

Researchers forward the following comments and suggested solutions based on the study's findings:

Underwriting is the basic operation of insurance businesses and found an adverse effect on the performance of insurance companies under this study. So, insurance companies should reduce the risk through different techniques like improving loss handling mechanisms, assessing and gathering adequate information of the insured before selection, and assessing their premiums properly.

Profitability for the selected private insurance companies in Ethiopia is positively influenced by market share. Therefore, respective insurance companies marketing managers should pay great attention to the maximization of market share through different mechanisms like innovation and best technology to earn more premium than their competitors in the industry.

Leverage has a negative impact on the profitability of private insurance firms in Ethiopia.

Thus, insurance firms should try to achieve the optimal level of debt and equity mix. Additionally, insurance companies should rely on internally generated funds and equity capital than debt as a source of financing.

The volume of capital shows an adverse effect on private insurance profitability in Ethiopia. This may be due to

mismanagement of assets, holding idle cash, insufficient utilization of properties. So, insurance companies with poor asset management should manage their assets properly by using asset management techniques and should utilize their resources efficiently and invest any idle cash on profitable investment opportunities.

Finally, to ensure the capacity and ability to cover their short-term debt and loss incurred, insurance companies should hold liquid assets but at optimum level and they have to check their liquidity level because sometimes there may be assets that are not properly used and invested.

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