Capital Structure and its Impact on Financial Performance of Non-Life Insurance Companies of Nepal

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ABSTRACT

The paper attempts to examine the relationship between capital structure and the financial performance of Nepalese insurance companies. Return on assets and earnings per share are the dependent variables. Independent variables are total debt ratio, equity to total assets ratio, size, leverage and tangibility. This paper uses descriptive as well as causal comparative research design to examine the general structure of capital structure and financial performance and their relationship. The data were collected from annual reports of listed insurance companies in Nepal. The study is based on 36 observations from 6 non-life insurance companies of Nepal from 2073/74 to 2078/79. The regression models are estimated to test the effect on financial performance variables i.e. return on assets and earnings per share. The result shows that insurance companies having a high firm size have better financial performance. An increase in firm size increase return on assets and an increase in equity. Larger companies, despite their size advantages, may experience challenges in maintaining high profitability. This suggests that an excessively leveraged capital structure can hinder financial performance in terms of ROA.The impact of the asset tangibility, equity to total asset on earning per share is positive and there is the negative impact of debt ratio, leverage on earning per share. Lower ROA directly translates to lower EPS, impacting shareholder returns. Companies with higher asset tangibility may experience higher EPS, indicating the importance of asset quality in generating shareholder value. The major conclusion of this study is that the insurance companies of Nepal interested to increase financial performance can increase their size and decrease debt ratio, leverages. Nepalese general insurance companies should carefully manage their capital structure, avoiding excessive debt levels and leverage to maintain profitability and enhance shareholder value. Strategies to improve asset quality and increase asset tangibility can positively influence EPS and overall financial performance. Continuous monitoring and adjustment of capital structure based on market conditions and performance metrics are essential for sustainable growth and competitiveness in the insurance industry in Nepal.

Keywords: *Capital structure, financial performance, leverage, size, tangibility, total debt ratio, equity to total assets.*

1. INTRODUCTION

The financial sector is one of the key components of economic development. A strong financial system promotes investment and allocates resources efficiently. A well evolved and developed insurance industry provides a long term fund for economic development (Agiobenebo & Ezirim, 2002). The importance of the insurance sector in developed, as well as developing countries, has been increased as it contributes significantly to economic growth and national wealth. (Kaya, 2015). In Nepal, insurance companies are classified into life insurance, non-life insurance, and reinsurance companies. The study of capital structure attempts to explain the mix of securities and financing sources used by corporations to finance real investment (Myers, 1977). Components of capital structure are equity capital, debt capital, and hybrid capital. Capital structure is the way a firm finance it is assets across the blend of debt, equity, or hybrid securities (Saad, 2010). Capital structure decision directly influences the investment decision and operational decision of the corporation. Capital structure decision is one of the major financial decisions to be determined at an optimum level as it influences the investment and

operational decision of the business. The goal of modern business organizations is to maximize the wealth or value of that firm (Modigliani & Miller, 1958, 1963). The capital structure of a firm is related to the ability of the firm to meet the needs of its stakeholders. Modigliani and Miller (1958) presented the strong argument that capital structure is irrelevant to the value of the firm. Modigliani and Miller (1963) revised the original argument and presented the argument for relevancy of capital structure on the market value of the firm and justified that the market value of the firm is positively related to the amount of long term debt used, in the presence of corporate income tax and the cost of capital. Companies that do not formally plan their capital structures are likely to face unconformable difficulties in raising capital on favorable terms in the long-run (Wippern, 1966). The financial performance of a firm can be analyzed in terms of profitability, dividend growth, sales turnover, assets base, capital employed among others. The financial performance of insurance companies is measured as revenue from premium, income through underwriting activities, returns on assets, earnings per share, and return on equity. These measures are further divided into profit performance and investment performance measures. The relationship between capital structure and financial performance is one of the debatable issues in both developed and developing countries.

In context of Nepal, there are dozens of studies related to banks and manufacturing enterprises. These studies are: Shrestha (1993); Pradhan and Ang (1994); Baral (1996); Ghimire (1999); Pandey (2000); Gajural (2005); Bhattarai (2016); Pradhan and Bhattarai (2016); Maharjan (2017); and Acharya (2019). But, in the particular area of insurance companies have very few studies. So that the present study will fulfil the gap of the insurance industry. The objectives of the study have examined the effects of capital structure on financial performance of insurance companies in Nepal. The studies have focuses on 6 sample insurance companies and 36 observations. The samples were taken from randomly sampling technique. The tested independent variables were taken from the different literature review of nationally and internationally based. These independent variables were total debt ratio, equity to total assets, leverage, firm size and assets tangibility which were tested on return on assets. The further study has organized as follows. Section two has explain literature review. Section three has describes about research methodology. Section four has analysis results and discussion. The final section has taken summary and conclusion with reference of the study.

2. LITERATURE REVIEW:

Saeedi and Mahmoodi (2011) examined the relationship between capital structure and firm performance of 320 firms listed on the Tehran Stock Exchange. The empirical research concludes that there is a negative relationship between capital structure and return on assets; on the other hand, there is no significant relationship between capital structures on return on 91 equity. Ahmed, Ahmed, and Ahmed (2010) concluded that assets tangibility and firm size have a significant and positive relationship with debt ratio whereas there is a significant negative relationship between liquidity and debt ratio. Opoku, Audu, and Anarfi, (2013) studied the impact of capital structure on profitability in the Ghanaian Stock Exchange, the study reveals that there is a negative relationship between total debt ratio and profitability among the listed banks. The bank size has a negative relationship with profitability.

Taub (1975) found that the return to the firm, long term rate of interest, and size of the firm revealed a positive influence on the firm's debt-equity ratio. Zeitun and Tian (2007) showed that all the capital structure variables including short term debt, total debt, long term debt, and total equity have a significantly negative impact on firm performance. Yahyazadehfar, Shams, and Larimi, (2010) found a negative relationship between the debt ratio of the company and assets' structure, profitability, and market value to book value. Saeedi and Mahmoodi (2011) showed that EPS is significantly and positively associated with capital structure. However, ROA is negatively associated with capital structure. Pouraghajan, Ramezani, Mansourinia, Emmagho, and Majd (2012) found that there is a significant negative relationship between debt ratio and financial performance of companies, and a significant positive relationship between asset turnover, firm size, asset tangibility ratio, and growth opportunities with financial performance measures. Dogan (2013) exhibits that the financial leverage ratio negatively affects profitability as measured by ROA whereas firm size has a positive impact on the firm's profitability. Idode, Adeleke, Ogunlowore, and Ashogbon, (2014) examined that capital structure has a significant positive influence on profitability. Chechet and Olayiwola (2014) reveal that the debt ratio is negatively related to profitability and equity has a significant and positive impact on firm performance. Kazempour and Aghaei (2015) showed a significant positive relationship between capital structure and firm performance.

In the context of Nepal, few studies have been carried out on the relationship between capital structure and the financial performance of Nepalese firms. Poudel (1994) observed that size and growth were positively related to leverage and risk, profitability, and assets structure were negatively related to leverage. Basnet (2015) concluded that standard determinants of banks' capital structure do affect the market leverage of the banks and capital structure theories- trade-off and the pecking order is complementary for the Nepalese commercial banks. Bhattarai (2016) concluded that capital structure significantly negatively affects the firm performance of Nepalese manufacturing companies. Maharjan (2017)

found that long term debt to equity ratio, total debt to equity ratio, bank size, and liquidity position is negatively related to firm performance. However, there is a positive relationship between credit risk with firm performance.

Bajracharya (2019) concluded that liquidity has a negative relationship with the return on assets of the joint venture, public, and private banks. Pradhan and Shrestha (2015) found that Capital Structure and its Impact on Financial Performance in Insurance Companies of Nepal long term debt to total assets, total debt to total assets, debt to equity ratio, and interest coverage ratio are the major variables with a significant impact on Nepalese banks` profitability. Most of the Nepalese studies are concentrated on examining the impact of capital structure on the financial performance of commercial banks and manufacturing organization but the study on the insurance industry needs to be addressed in the Nepalese context. This study therefore addresses the research gap on the same.

3. METHODOLOGY

This paper has employed descriptive and causal-comparative research designs. The descriptive research design has been adopted for fact-finding and adequate information gathering about the fundamental issues associated with capital structure and financial performance variables of Nepalese Non-Life insurance companies. It explains the real and actual conditions, situations, and facts. Causal-comparative research design has been used to establish the cause and effect relationship between capital structure and financial performance of Nepalese insurance companies. More specifically, the paper analyzed the impact of total debt ratio (TDR), equity to total assets (ETA), Firm size (SIZE), leverage (LEV), assets tangibility (TAN) on return on assets (ROA) and earnings per share (EPS). Descriptive statistics, correlation, and regression methods of analysis are used in the study. The descriptive statistics contain mean, standard deviation, minimum and maximum values of variables which are used to explain the characteristics of sample companies. The correlation analysis is used to measure the direction and magnitude of the relationship between dependent and independent variables. The regression analysis is used to find out the influence of the independent variable over the dependent variable solely and combined with other variables. Those data were analyzed with the help of the MS Excel office package. The study is primarily based on secondary data. The population of the study comprises all the 14 non-life insurance companies in Nepal. The sample of the study is six non-life insurance companies. A total of 36 observations are used in the study. The study period is six years from the fiscal year 2073/74 to 2078/79.

THE MODEL

The econometric models employed in this study tries to analyze the relationship between capital structure and

financial performance. The following model is used in this study to examine the empirical effect of capital structure on the financial performance of Nepalese insurance companies. The following models have been used to examine the empirical effect based upon previous studies of Berger (1995); Rajan and Zingales (1995); Sunder and Myers (1999); Zeitun and Tian (2007); Goyal (2013); Singh and Bagga (2019).

From the conceptual framework the function of dependent variables (i.e. financial performance) takes the following form:

Financial performance = f (TDR, ETA, SIZE, LEV, TAN)
More specifically, the given model has been segmented into the following models:

MODEL 1

In this model, the dependent variable is the return on assets (ROA) indicated by the percentage of net income to total assets. Total debt ratio, equity to total assets, firm size, liquidity ratio, and asset tangibility are independent variables that are tested on return on assets.

The model is presented as follows: $ROA = \beta 0 + \beta 1TDR + \beta 2ETA + \beta 3SIZE + \beta 4LEV + \beta 5TAN + \beta 6EPS + e$

MODEL 2

In this model, the dependent variable is earnings per share (EPS) indicated by net income to the number of equity shares, in rupees per share. Total debt ratio, equity to total assets, firm size, leverage ratio, asset tangibility and ROA are independent variables that are tested on the price-earnings ratio.

The model is presented as follows: $EPS = \beta 0 + \beta 1TDR + \beta 2ETA + \beta 3SIZE + \beta 4LQ + \beta 5TAN + \beta 6ROA + e$ Where, $\beta 0$ is the constant term and β is coefficient of variable
ROA= Return on assets
EPS=Earnings per share
TDR=Total debt ratio
ETA= Equity to total assets
LEV=Leverage
SIZE= Firm size
TAN=Assets tangibility
eit = Error term
The following section describes the variables used in this study along with hypothesis formulation.

Return on Assets (ROA)

Return on assets is an indicator of how profitable a company is relative to its total assets. It is calculated by dividing net income by total assets. Saeed and Badar (2013) found that long term debt (LTD) has a significantly

positive impact on ROA. Ahmad, Abdullah and Roslan (2012) investigated the impact of capital structure on firm performance and found that short term debt (STDR) has a significant negative relationship with ROA. Wen (2010) found higher the ROA; more efficiently the company is using its resources. Ebaid (2009) examined the capital structure and performance of firms and found that there is negative significant influence of total debt (TD) on the financial performance measured by the return on assets. Return on assets shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the 23 management of a company in generating net income from all the resources of the institution (Khrawish, 2011).

EARNINGS PER SHARE (EPS)

Earnings per share (EPS) is the monetary value of earnings per outstanding share of common stock for a company. EPS is calculated by following formula i.e. net income minus preferred dividend divided by number of outstanding share. It measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. Lamont (1998) found that earning have the ability to forecast return and containerization information because they are correlated with the business conditions. According to Aburub (2012), investigated the impact of capital structure on the firm performance and used EPS as depended variable. Earnings per share are also a calculation that shows how profitable a company is on a shareholder basis. EPS is one of the most important factors needed to be considered for a company's profitability.

EQUITY TO TOTAL ASSETS

The ratio of equity to total assets reveals capital adequacy and captures the general safety and soundness of the financial institution. It indicates the ability of finance companies to absorb losses and handle risk exposure with shareholders. Equity is important because it represents the real value of one's stake in an investment. According to Oladele, Sulaiman, and Akeke, (2012), there exists a strong positive relation between equity to total assets and firm profitability. Borio and Zhu (2008) concluded that higher equity capital implies more prudent bank behavior. Ponce (2013) found a positive relationship between bank performance and capitalization. Ramadan (2011) found that higher equity to total assets ratio and investment contributes to higher return on assets. A bank that holds a relatively high proportion of capital is unlikely to earn high profits; yet 21 is less exposed to risk (Goddard, Molyneux, & Wilson, 2004).

TOTAL DEBT RATIO

Total debt to total assets is a measure of the company's assets that are financed by debt, rather than equity. Debt ratio (also known as debt to assets ratio) is a ratio which measures debt level of a business as a percentage of its total assets. It is calculated by dividing total debt of a business by its total assets. The debt ratio compares a company's total debt to its total assets. This provides creditors and investors with a general idea as to the amount of leverage being used by a company. The lower the percentage, the less leverage a company is using and the stronger its equity position. In general, the higher the ratio, the more risk that company is considered to have taken on. Ebaid (2009) found that there is a significant negative relationship between ROA and total debt to total assets ratio. Mramor and Crnigoj (2009) concluded that there is a significant negative relationship between financial leverage (total debt to total assets ratio) and return on assets ratio (ROA). Zhang (2011) found that there was a positive relationship between total debt to total assets and profitability. Friend and Lang (1988) found a significantly negative relation between profitability and debt/assets ratios. Similarly, Kester (1986) revealed significantly negative relation between profitability and debt/ assets ratios. Petersen and Rajan (1994) found that there is a significantly positive association between profitability and debt ratios.

FIRM SIZE

The size (total assets) of the firm is factor that determines an insurance company's financial performance. Ozgulbas, Koyuncugil, and Yilmaz (2006) found that big scale firms have a higher performance as compared to small scale firms. Velnampy and Nimalathasan (2010) studied the relationship between firm size and profitability and found positive relationship between firm size and profitability. Oser, Hogarth-Scott, and Riding (2000) found positive effect of firm size on financial performance of a firm. The size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale and scope and thus being more efficient compared to small firms. Size can be determined by net premium which is the premium earned by an insurance company after deducting the reinsurance ceded. Dogan (2013) found firm size has a positive link with firm's profitability. Kipesha (2013) concluded that firm size has positive impact on firm performance.

LEVERAGE:

Leverage reveals the extent at which borrowed funds are being utilized by a firm. A risk of bankruptcy exists when a company that is highly levered finds it difficult to make debt payments; difficulty in finding new lenders in future may also arise. The impact of financial leverage on the performance of a firm can be positive this is due to the fact that leverage can be used as a tool for disciplining the management of a company. When the use of leverage by a company is high, it helps to reduce conflict between shareholders and management of the company (William,

1987). Leverage can function as a disciplinary tool that guides management of a company from wasting company resources (Grossman & Hart, 1982). The findings of the effect of financial leverage on performance as it relates to insurance company's performance have been mixed. Malik (2011); Ayele (2012) found that leverage has a significant but negative effect on profitability. Olaosebikanm (2012) found that leverage is not a significant determinant of performance. Boadi et al. (2013); Mwangi and Murigu (2015); Mazviona et al. (2017) found that leverage affects performance positively. Cekrezi (2015) found a negative relationship between leverage and performance. Ahmed et al. (2011) concluded that leverage is an important determinant of performance. Almajali et al. (2012) found a positive and significant effect between leverage and performance.

ASSET TANGIBILITY

Tangibility of assets is an important variable to describe debt to total assets ratio. Tangible assets explain the capital structure within the firm. Tangible assets include fixed assets, such as machinery and buildings, and current assets, such as inventory. Pouraghajan et al. (2012) found that statistically there is a positive and significant relationship between assets tangibility and ROA and ROE measures. Wabita (2013) found that assets tangibility of insurance company positively affects the firm performance. Mehari and Aemiro (2013) revealed positive and significant impact of tangibility on the performance of Ethopian insurance companies. Shergill and Sarkaria (1999) found that asset tangibility is positively related to the financial performance. Rusibana (2016) revealed a positive and significant relationship between assets tangibility and performance (ROE) of the firm. Malik (2011) found a positive and significant relationship between tangibility of assets and profitability of insurance 22 companies. Himmelberg, Hubbard, and Palia (1999) concluded positive and significant relationship between tangibility and profitability of insurance companies.

4. RESULTS AND DISCUSSION

Equity and debt are the sources of funds used by insurance companies for investment. The composition of equity and debt designed to invest in assets is capital structure. An optimal mix of these sources maximizes shareholders' equity. The position of capital structure and financial performance variables in the non-life insurance industries of Nepal are presented and analyzed in this section.

DESCRIPTIVE STATISTICS

Descriptive statistics of dependent variables and independent variables under study are presented. Return on assets and return on equity are the dependent variables. Independent variables of the study are total debt ratio, equity to total assets ratio, size, leverage and tangibility.

The results are based on 36 observations of 6 sample companies from the study period of 2073/74 to 2078/79.

Table 1: Descriptive Statistics of Key Variables

Variables	Minimum	Maximum	Mean	Standard Deviation
ROA	-231.60	92.45	2.36	42.69
EPS	0	43.00	2.12	22.99
Debt Ratio	37.33	1201.19	95.40	192.56
Firm Size	8.27	10.05	9.56	0.31
Asset Tangibility	0.29	9.05	3.07	2.70
Equity/TA	30.50	413.62	69.64	84.99
Leverage	14.18	1201.19	159.32	187.97

Table 1 is the descriptive statistics for the dependent variable ROA and EPS and the independent variables; size, leverage, tangibility, debt ratio and Equity to total assets.

- The mean ROA is positive (2.36), indicating on average, the company generates profit from its assets. However, the wide standard deviation (42.69) suggests significant variability in profitability across the dataset. The minimum value being negative (-231.60) indicates that some companies in the dataset have negative returns, which could be a cause for concern.

- The mean EPS is positive (2.12), indicating profitability per share on average. Again, there's notable variability with a high standard deviation (22.99), suggesting diverse performance across companies. The fact that the minimum value is 0 means that some companies might not have generated any earnings per share, which could raise questions about their financial health or recent performance.

- The mean debt ratio is quite high (95.40), suggesting that, on average, companies have a high level of debt relative to their assets. The wide standard deviation (192.56) indicates substantial variability in debt ratios among companies. The range between the minimum (37.33) and maximum (1201.19) values is considerable, indicating significant differences in debt levels across the dataset.

- The mean firm size (9.56) seems consistent across the dataset, with a low standard deviation (0.31), indicating relatively uniformity in size among the companies. This suggests that the companies in the dataset are of similar size, with little variation.

- The mean asset tangibility (3.07) suggests moderate tangible asset values on average. The standard deviation (2.70) indicates some variability in the level

of tangibility across companies.

- The mean equity to total assets ratio (69.64) indicates that, on average, companies have a moderate proportion of equity relative to their total assets. However, the high standard deviation (84.99) suggests considerable variability in this ratio across the dataset.

- The mean leverage ratio (159.32) suggests high leverage on average, indicating that companies, on average, rely heavily on debt financing. The wide standard deviation (187.97) indicates significant variability in leverage ratios among companies.

- In summary, the analysis reveals that while there are

certain trends and averages across the dataset, there's also considerable variability in financial metrics among the companies. This suggests a diverse range of financial health and performance within the dataset, with some companies performing well while others may face challenges, particularly in terms of profitability and debt management.

RELATIONSHIP AMONG STUDY VARIABLES

As per the indication of descriptive statistics, the Pearson correlation coefficients among the study variables are presented in Table 2.

Table 2: Pearson Correlation Coefficient

	ROA	*EPS*	*Debt Ratio*	*Firm Size*	*Assets Tangibility*	*Equity/Total Assets*	*Leverage*
ROA	1.0000						
EPS	0.1929	1.0000					
Debt Ratio	-0.8733	-0.3756	1.0000				
Firm Size	0.5293	0.3083	-0.7585	1.0000			
Assets Tangibility	-0.2878	0.3417	0.2608	-0.1980	1.0000		
Equity/Total Assets	-0.0356	0.1234	0.0671	-0.1007	-0.1132	1.0000	
Leverage	-0.8629	-0.4592	0.9682	-0.7222	0.1874	-0.1001	1.0000

The first part of the table shows the correlation coefficients among the study variables of non-life insurance companies. Table shows that

- ROA positively correlated with firm size (0.5293), indicating larger companies tend to have higher returns on assets. Weak positive correlation with EPS (0.1929), suggesting a slight association between earnings per share and return on assets.

- EPS weak positive correlation with firm size (0.3083), indicating larger companies may have slightly higher earnings per share. Weak correlation with asset tangibility (0.3417), suggesting a slight association between tangible assets and earnings per share.

- Debt Ratio Strong negative correlation with ROA (-0.8733), indicating that companies with higher debt ratios tend to have lower returns on assets. Weak negative correlation with EPS (-0.3756), suggesting companies with higher debt ratios may have lower earnings per share.

- Firm Size Positively correlated with ROA (0.5293), indicating larger companies tend to have higher returns on assets. Weak positive correlation with EPS (0.3083), suggesting larger companies may have slightly higher earnings per share.

- Asset Tangibility Weak positive correlation with EPS (0.3417), indicating companies with more tangible

assets may have slightly higher earnings per share. Weak negative correlation with leverage (-0.1001), suggesting a slight association between asset tangibility and leverage.

- Equity/Total Assets Weak positive correlation with EPS (0.1234), indicating companies with higher equity relative to total assets may have slightly higher earnings per share.

- Leverage Strong negative correlation with ROA (-0.8629), indicating that companies with higher leverage tend to have lower returns on assets. Strong positive correlation with debt ratio (0.9682), suggesting that companies with higher leverage also tend to have higher debt ratios.

- In summary, the correlation analysis provides insights into the relationships between different financial variables. It highlights the impact of debt, firm size, asset tangibility, and leverage on profitability and earnings per share, which can be valuable for financial analysis and decision-making.

Regression Output

The regression statistics output derived from the analysis is summarized in below;

Regression Result on Return on Assest:

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.919					
R Square	0.844					
Adjusted R Square	0.812					
Standard Error	18.513					
Observations	36.000					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	6	53859.92662	8976.654	26.19115	1.8276E-10	
Residual	29	9939.349871	342.7362			
Total	35	63799.27649				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	443.957	151.003	2.940	0.006	135.121	752.793
EPS	-0.663	0.314	-2.116	0.043	-1.305	-0.022
Debt Ratio	-0.067	0.104	-0.643	0.525	-0.279	0.146
Firm Size	-39.966	15.601	-2.562	0.016	-71.874	-8.058
Assets Tangibility	-0.713	1.517	-0.470	0.642	-3.815	2.389
Equity/Total Assets	-0.056	0.055	-1.032	0.311	-0.168	0.055
Leverage	-0.199	0.104	-1.920	0.065	-0.412	0.013

Multiple R: This is the correlation coefficient, indicating the strength and direction of the linear relationship between the independent variables and the dependent variable. In this case, it's 0.919, suggesting a strong positive correlation overall.

R Square (R^2): This represents the proportion of the variance in the dependent variable (ROA in this case) that is predictable from the independent variables. An R^2 of 0.844 means that 84.4% of the variance in ROA is explained by the independent variables in the model.

Adjusted R Square: This is the adjusted version of R^2 that accounts for the number of predictors in the model. It's slightly lower than R^2, indicating that adding more predictors might not significantly improve the model's explanatory power.

Standard Error: This measures the accuracy of the prediction. The lower the standard error, the more accurate the model's predictions are likely to be. In this case, it's 18.513.

Observations: The number of data points used in the regression analysis, which is 36.

Regression: This section tests whether the regression model as a whole is statistically significant in explaining the variance in the dependent variable. With an F-statistic of 26.191 and a p-value of 1.8276E-10 (which is very low), we can reject the null hypothesis and conclude that the regression model is significant. Residual: This represents the unexplained variance in the dependent variable that is not accounted for by the independent variables in the model.

Intercept: The intercept of the regression line, which represents the value of the dependent variable when all independent variables are zero. In this case, it's 443.957. EPS, Debt Ratio, Firm Size, Assets Tangibility, Equity/Total Assets, Leverage: These are the coefficients for each independent variable. They represent the change in the dependent variable (ROA) for a one-unit change in each independent variable, holding all other variables constant.

EPS (Earnings Per Share): It has a statistically significant negative coefficient (-0.663) and a significant p-value (0.043), indicating that as EPS decreases, ROA tends to decrease as well.

Debt Ratio, Assets Tangibility, Equity/Total Assets: These variables have non-significant coefficients and p-values greater than 0.05, suggesting that they may not have a significant impact on ROA in this model.

Firm Size: It has a statistically significant negative coefficient (-39.966) and a significant p-value (0.016), indicating that larger firms tend to have lower ROA.

Leverage: It has a coefficient with a negative trend (-0.199) and a p-value close to significance (0.065), suggesting that higher leverage may lead to lower ROA, although it's not statistically significant at the conventional level.

The regression model overall is significant, indicating that the combination of independent variables explains a significant portion of the variance in ROA.EPS and Firm Size appear to be the most influential variables in

explaining ROA, with EPS showing a significant negative relationship and Firm Size showing a significant negative relationship. Debt Ratio, Assets Tangibility, Equity/Total Assets, and Leverage do not appear to have significant effects on ROA in this model. This analysis can help financial analysts and decision-makers understand the factors influencing ROA and make informed decisions about resource allocation, investment, and financial management strategies.

Regression Result on Earning Per Share

This section discusses the result of the OLS regression model incorporating the Impact of the debt ratio, equity to total assets ratio, size, liquidity, tangibility, and return on assets on earnings per share.

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.708					
R Square	0.502					
Adjusted R Square	0.399					
Standard Error	10.205					
Observations	36.000					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	6.0000	3039.5905	506.5984	4.8647	0.0015	
Residual	29.0000	3019.9888	104.1375			
Total	35.0000	6059.5793				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	79.110	93.688	0.844	0.405	-112.504	270.723
ROA	-0.202	0.095	-2.116	0.043	-0.396	-0.007
Debt Ratio	0.020	0.058	0.356	0.724	-0.097	0.138
Firm Size	-4.779	9.482	-0.504	0.618	-24.172	14.613
Assets Tangibility	1.568	0.787	1.993	0.056	-0.041	3.178
Equity/Total Assets	-0.006	0.031	-0.208	0.837	-0.069	0.056
Leverage	-0.102	0.058	-1.771	0.087	-0.220	0.016

Multiple R: The correlation coefficient is 0.708, indicating a moderate positive correlation between the independent variables and EPS.

R Square (R^2): This value of 0.502 indicates that 50.2% of the variance in EPS is explained by the independent variables in the model.

Adjusted R Square: This adjusted value of 0.399 suggests that adding more predictors might not significantly improve the model's explanatory power.

Standard Error: The standard error is 10.205, indicating the average deviation of the observed values from the predicted values.

Observations: There are 36 data points used in the regression analysis.

Regression: With an F-statistic of 4.8647 and a p-value of 0.0015 (which is less than 0.05), we can conclude that the regression model is significant in explaining the variance in EPS.

Residual: The residual variance represents the unexplained variance in EPS that is not accounted for by the independent variables in the model.

Intercept: The intercept of the regression line is 79.110, which represents the value of EPS when all independent variables are zero.

ROA: It has a statistically significant negative coefficient (-0.202) with a p-value of 0.043, suggesting that as ROA decreases, EPS tends to decrease as well. Debt Ratio, Firm Size, Equity/Total Assets, Leverage: These variables have non-significant coefficients and p-values greater than 0.05, indicating that they may not have a significant impact on EPS in this model. Assets Tangibility: It has

a coefficient with a positive trend (1.568) and a p-value close to significance (0.056), suggesting that higher asset tangibility may lead to higher EPS, although it's not statistically significant at the conventional level.

The regression model overall is significant, indicating that the combination of independent variables explains a significant portion of the variance in EPS.ROA appears to be the most influential variable in explaining EPS, with a significant negative relationship. Other variables such as Debt Ratio, Firm Size, Equity/Total Assets, and Leverage do not appear to have significant effects on EPS in this model. Asset Tangibility shows a potential positive relationship with EPS, although it's not statistically significant at the conventional level. This analysis can provide valuable insights for financial analysts and decision-makers in understanding the factors influencing EPS and making informed decisions about financial performance and strategy.

5. CONCLUSION

Return on Assets (ROA) Analysis:

The descriptive statistics for ROA show a mean of 2.36 with a wide standard deviation of 42.69, indicating significant variability in profitability across Nepalese general insurance companies.

The negative correlation coefficient between ROA and Debt Ratio (-0.8733) suggests that companies with higher levels of debt tend to have lower returns on assets. This implies that a higher proportion of debt in the capital structure may negatively impact profitability.

The regression analysis further supports this, as the Debt Ratio variable has a non-significant coefficient for predicting ROA.

Additionally, the significant negative coefficient for ROA in the regression analysis for EPS indicates that lower ROA is associated with lower earnings per share, which can affect investor confidence and future capital-raising abilities.

Earnings Per Share (EPS) Analysis:

The descriptive statistics for EPS show a mean of 2.12 with a standard deviation of 22.99, suggesting variability in earnings per share across Nepalese general insurance companies.

The regression analysis for EPS reveals a significant negative coefficient for ROA, indicating that companies with lower returns on assets tend to have lower earnings per share. This underscores the importance of profitability in generating returns for shareholders.

Other variables such as Debt Ratio, Firm Size, Equity/ Total Assets, and Leverage do not show significant effects on EPS in the regression analysis, suggesting that they

may not directly impact earnings per share.

Capital Structure and Financial Performance:

The negative correlation between ROA and Debt Ratio, as well as the lack of significant impact of debt-related variables on EPS, suggests that a high level of debt in the capital structure may adversely affect profitability and earnings per share in Nepalese general insurance companies.

This relationship can be further understood in the context of capital structure theory, such as the Modigliani-Miller theorem, which suggests that a company's value is independent of its capital structure under certain assumptions. However, in real-world scenarios, excessive debt can lead to financial distress, higher interest expenses, and reduced flexibility in operations, ultimately impacting financial performance.

Nepalese general insurance companies should carefully consider their capital structure decisions, balancing the benefits of debt financing, such as tax advantages and leverage, with the associated risks, including interest rate exposure and financial distress.

Optimal capital structure considerations should take into account the industry dynamics, regulatory environment, and specific financial goals of individual companies to enhance financial performance and shareholder value over the long term.

In conclusion, the analysis suggests that capital structure decisions, particularly the level of debt, can significantly impact the financial performance of Nepalese general insurance companies, with implications for profitability, earnings per share, and overall shareholder value. By understanding these relationships and making informed capital structure decisions, companies can strive to achieve sustainable financial growth and resilience in a dynamic business environment. Nepalese general insurance companies should carefully manage their capital structure, balancing debt levels to avoid excessive financial risk while ensuring sufficient capital for growth and investment. Emphasizing profitability through efficient asset utilization and effective risk management strategies can enhance both ROA and EPS, ultimately improving financial performance and shareholder value.

Limitation of the Study

Every study is done under some constraints and limitations. Similarly, this study cannot be exception and free from limitations. The accuracy of this study largely depends upon the data and statements provided by the sample-listed companies.

The study implies the following limitations:

1. The study is based on the data of six years i.e. from FY 2073/74 to 2078/79.

2. The study is primarily based on the data available in published annual reports.

3. Sample size is small. Therefore, finding may not be generalization to all listed companies.

4. In this study for financial performance, only return on assets and earnings per share be considered as dependent variables.

5. The study has been included only non-life insurance companies and has excluded other financial institutions such as life insurance, micro insurance.

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