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Determinants of Profitability of Insurance Companies in Nepal

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Abstract

The ability of a corporation to turn a profit from all of its business endeavors is expressed by its profitability. It demonstrates how well management uses all available resources to generate profit. This study attempts to investigate the determinants of profitability of insurance companies in Nepal. This study is based on secondary data of 15 sample insurance companies using convenient sampling and it covers the period 2016/17 to 2020/21 with 75 observations. The results of this study revealed that expense ratio, financial leverage, claim ratio and size of company have impact on profitability of the insurance companies in Nepal. Expense ratio and claim ratio have significant negative and financial leverage and size of company have positive impact on profitability of the insurance companies in Nepal. This study also revealed the insignificant effect of age on profitability of insurance companies.

Key Words: Profitability, Net profit margin, Expense Ratio, Financial Leverage, Claim Ratio, Size, Age.

Introduction

The firms that advocated risk management through agreements for insurance are the insurance companies. The basic idea behind insurance is that one side, the insurer, will always get payment in the event of an unforeseen future incident. Transferring risk to insurance provider by paying a small premium will reduce the policyholder's financial loss. The goal of insurance is to forecast the likelihood that a loss will occur in the future by pooling a number of units that are influenced by comparable risks. This reduces the inherent risk in the economy. Among all financial industries, insurance businesses are one of the safest for investors. All commercial enterprises, including insurance firms, prioritize making a profit. The insurance industry is a crucial area for the county's economic growth. According to Haiss and Sumegi (2008), the insurance industry plays a significant role in the financial services sector by fostering economic growth, effective resource allocation, liquidity generation, the realization of economies of scale in investment, and the distribution of financial losses. The financial dependability of an economy is greatly facilitated by the insurance sector. Recently, there has been an increase in the interaction between the many players in the financial system, such as banks, other intermediaries, insurers, and financial markets. Furthermore, according to the European Central Bank (2009), these companies not only insure and guarantee the financial risk of residences and commercial buildings, but they also make a major contribution to the financial markets. The ability to generate revenue is a requirement for an insurance company to remain viable in the highly competitive, globalized economy, provide clients with a variety of services, benefit the local community economically and socially, or contribute to the GDP. Insurance companies are unable to deliver services and rise outside funding to accomplish their goals due to a lack of profit (Atsbeha and Kaur, 2015). Insurance industry has a vital role in the economy as a whole since it offers services related to risk management, protection, and other financial services (Ben Dhiab, 2021).

Reinsurance commissions, underwriting surplus, and gross investment income are all sources of an insurer's profitability. The elements that affect an insurance company's profit level are underwriting, investment income, claims expenses, gross premiums written, operating expenses, commission expenses, and technical reserves. Profit measurement is crucial for a company's success as well as for understanding of profit distribution and investment strategy. As a result, information about profit is now transparent to all stakeholders, including company owners, investor managers, creditors, governments, employees, and the general public (Juwita & Rindiati, 2020). Insurance companies should be profitable so that the entire system can experience the necessary growth, taking into account the structure of our nation's financial system and the difficulties faced by insurance companies in the process of developing and integrating non-bank finance. One of the main objectives of financial management is profitability. This is because of the primary roles and goals of financial management is to increase shareholder value. The key factors affecting business performance is profitability (Malik, 2011). Any firm must be profitable in order to remain competitive and enjoy long-run success. The efficacy of financial institutions is regularly assessed using it globally.

Profitability is the major indicator of financial health of insurance companies of Nepal. The profitability of the company is affected by so many factors. There might be internal as well as external factors. The main objective of this study is to identify the variables influencing the insurance company's profitability in Nepal.

Previous research demonstrates that empirical evidence on the factors influencing firm profitability varies significantly amongst studies. Although the empirical evidence revealed above exists in the context of other countries, some few studies exist in the context of Nepal. Thus, the study's main objective is to investigate the variables influencing Nepalese life insurance companies' profitability. It specifically examines at how Nepalese insurance companies' profitability measures by net profit margin is impacted by expense ratio, financial leverage, claim ratio, company size and age of company.

Review of Literature

Mehari and Aemiro (2011) studied specific company factor that impact insurance companies' profitability in Ethiopia, using return on assets (ROA) as a variable that is dependent to represent the profitability of the insurance companies. The explanatory variables included the company's age, size, leverage, loss ratio, tangibility of assets, liquidity, and premium growth. The authors concluded that while age of the company, liquidity, and premium growth had no impact on the profitability of insurance companies, company size, leverage, loss ratio, and tangibility were statistically significant variables.

According to Charumathi (2012), the company's profitability was positively and significantly impacted by its size and liquidity. Her empirical study on the Determinants of Profitability of Indian Life Insurers showed no relationship between underwriting risk and profitability. On the other hand, the profitability of Indian life insurance businesses was significantly impacted negatively by leverage, premium growth, and the logarithm of equity capital.

Yuvaraj and Abate (2013) stated that the size and amount of capital clearly had shown negative effect on profitability of insurance companies, as well as liquidity ratio and leverage ratio.

Burca and Batrinca (2014) conducted a study on the insurance market in Romania and found that many factors, such as firm size, aggregate premium growth, underwriting risk ratio, solvency margin, and financial leverage, affected the performance of the insurance industry.

Kaya (2015) focused the company specific variables that affect financial performance of non life insurance companies in Turkey. Empirical results demonstrated that Turkish non-life insurance enterprises' size, age, loss ratio, current ratio, and premium growth were the distinctive company features which had an impact on their profitability.

Ortynski (2016) documented that firm size and the ratio of technical activity had a positive influence on profitability, net claims ratio and net operational expenses had negative effect on insurance companies’ performance.

Alomari (2017) investigated the influence of a firm-specific factor on how well Jordanian insurance enterprises perform as measured by ROA, represented as an indicator of profitability. As per results, underwriting risk, liquidity, and leverage all had a significant negative effect on firm's performance. And market share and size had significant positive effect on success of the Jordanian insurance industry. GDP per capita and inflation were not causally related.

In addition to macroeconomic variables like GDP per capita, inflation, and the stock market general index, Banerjee and Majumdar (2018) examined the factors that impact the insurance market's financial performance in the United Arab Emirates using a variety of variables, including size, growth in GWP, market share, leverage, solvency margin, investment ratio, and loss ratio. It was discovered that the profitability of the firm was significantly impacted by leverage, size, and growth in GWP; positively and significantly;

the per capita GDP; significantly; the effect of inflation; and insignificantly; by risk retention ratio and loss ratio.

Poudel (2019) investigated the relationship between ownership and a variety of firm-specific elements that affect insurance companies' profitability and discovered a negative correlation between ROA and tangibility and liquidity. Yet, there was a positive correlation between the variables of business size, age, and leverage.

Bhattari (2020) examines the variables influencing the performance of Nepalese insurance companies. Employee expenses ratio, financial leverage, and firm size were the study's independent variables, and Return on Equity was used as a measure of profitability, as dependent variable. The study came to the conclusion that the main determinants of profitability in Nepalese insurance companies were financial leverage and company size, with the costs ratio and other independent factors showing a positive link with profitability.

The factors affecting the profit growth of insurance companies listed on the Indonesia Stock Exchange were examined by Ganefo and Anthoni (2021) and concluded that the independent variables premium income, claim payments, and risk-based capital had an impact on the dependent variable profit growth simultaneously and significantly, and that premium income (PK) had a positive impact. While Risk Based Capital (RBC) had a positive and considerable impact on profit growth, Claim Payment (PK) had no discernible impact on profit growth.

Ahmeti and Iseni (2022) examined the effects of specific company factors on profitability. The following factors were considered independent variables: liquidity, firm size, age, physical assets, leverage, capital, and growth. The findings showed that the age, size, and leverage of the business had a big impact on the NPM and ROA of insurance companies.

Research Methodology

This study uses a descriptive and casual comparative research design. The main objective of the study is to investigate the factors influencing the profitability of Nepalese insurance companies. Expense ratio (ER), Financial Leverage (FL), Claim Ratio (CR), Size of company (LnSize) and Age of company (LnAGE) are the independent variables whereas NPM is dependent variable. This study relies on secondary data obtained from annual reports. An attempt has also been made to describe the character of performance of 15 sample insurance companies based on convenient sampling with a total of 75 observations during fiscal year 2016/17 through 2020/21.The sample insurance companies are Asian Life Co. Ltd, Life Insurance Co. (Nepal) Ltd., Prime life Co. Ltd, Surya life Co. Ltd, National Life Insurance Co. Ltd, Nepal Life Insurance Co. Ltd., Nepal Insurance Co. Ltd., Sagarmatha Insurance Co. Ltd, Siddhartha Insurance Co. Ltd., Prudential Insurance Co. Ltd., Niko Insurance Co. Ltd., United Insurance Co. Ltd., Nepal Reinsurance Co. Ltd., Lumbini Insurance Co. Ltd., NLG Insurance Co. Ltd.

The Model

The econometric model is used to estimate the factors influencing the profitability of insurance companies in Nepal. Regression analysis is taken as major tool. The model is expressed as:

$$\mathbf{NPM_{it} = \alpha + \beta_1\, ER_{it} + \beta_2\, FL_{it} + \beta_3 CR_{it} + \beta_4\, LnSIZE_{it} + \beta_5 LnAGE_{it} + e_{it}}$$

Where,

NPM_{it} = net profit marginfor insurance company during t period.

β_{it} = coefficient parameters

ER_{it}= expense ratio for insurance company during t period.

FL_{it}= financial leverage for insurance company during t period.

CR_{it}= claim ratio for insurance company during t period.

$LnSIZE_{it}$= size of insurance company during t period.

$LnAGE_{it}$= age of insurance company during t period.

Results and Discussion

Descriptive Statistics

Table 1 shows descriptive statistics of dependent and independent study variables during 2016/17 to 2020/21. It consists of mean, SD, minimum and maximum.

Table 1
Descriptive Statistics

Variables	Mean	Standard Deviation	Minimum	Maximum
NPM	0.264	0.273	0.01	1.11
ER	0.297	0.291	0.002	1.53
FL	0.675	0.187	0.17	0.95
CR	0.521	0.330	0.06	1.18
LnSIZE	22.665	1.162	20.98	25.35
Ln AGE	2.794	0.627	0.69	4.11

Source: Annual Reports

Table 1 reveals that net profit margin (NPM) of the selected insurance company in study ranges from minimum 0.01 to maximum 1.11. The mean value and standard deviation of 0.264 and 0.273 respectively. In terms of expense ratio (ER), the value ranges from minimum 0.002 to maximum 1.53 with average of 0.297 and the standard deviation of 0.291. Financial leverage (FL) ranges from minimum 0.17 to maximum 0.95 with a mean value and standard deviation of 0.675and 0.187 respectively. Claim ratio (CR) falls within the range of minimum 0.06 to maximum 1.18 and the size of the company Ln SIZE from 20.98 to 25.35. Similarly, the age of the company falls within the range of minimum 0.69 to maximum 4.11.

Correlation Analysis

The correlation analysis demonstrates an association between the dependent and independent study variables. Bivariate Pearson correlation coefficients related to various variable pairs are shown in Table 2.

Table 2

Correlation Coefficients of Variables

Variables	NPM	ER	FL	CR	Ln SIZE	Ln AGE
NPM	1					
ER	-.341**	1				
FL	-.047	-.195	1			
CR	-.302**	.156	.228*	1		
Ln SIZE	.361**	-.318**	.530**	-.012	1	
Ln AGE	-.017	.240*	.258*	.080	-.168	1

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

Source: Annual Reports

Table 2 demonstrates that although some of them are statistically significant, the correlations between various pairs of explanatory variables are also generally lower. The net profit margin (NPM) is significantly negatively related with expense ratio (ER) and claim ratio (CR). Coefficients are -0.341 and -0.302 respectively and indicates decrease in expense ratio and claim ratio, increases profitability (NPM) of insurance companies. Results are consistent with the study of Ortynski (2016) and inconsistent with the study of Bhattarai (2020). Similarly, it also shows the significant positive correlation between profitability (NPM) and company size (LnSIZE) of correlation coefficient 0.316. The results show that increasing the size of a corporation increases its net profit margin, and vice versa. This finding is consistent with research by Charumathi (2012), Ortynski (2016), Alomari (2017), Banerjee and Majumdar (2018), Bhattarai (2020) and Wolde et al. (2020). Similarly, net profit margin (NPM) is negatively insignificant with financial leverage (FL) and age of the company (Ln AGE). The findings imply that there is no association between financial leverage and firm age in terms of insurance company’s profitability in Nepal.

Regression Analysis

Regression analysis shows the effect of independent factors (expense ratio, financial leverage, claim ratio, firm size, and company age) on the dependent variable (net profit margin).

Table 3

Regression results of ER, FL, CR, Ln SIZE and Ln AGE on NPM

Variables	Coefficient	Std. Error	T	Sig.	Collinearity Statistics	
					Tolerance	VIF
Constant	3.981	0.599	6.649	.000		
ER	-0.397	.090	-4.398	.000	.817	1.223
FL	0.484	.175	2.773	.007	.534	1.872
CR	-0.258	.077	-3.364	.001	.888	1.126
Ln SIZE	0.162	.027	-6.087	.000	.592	1.690
Ln AGE	-0.040	.044	-.916	.363	.754	1.327
R^2= 0.474Adj. R^2 = 0.436F-stat.= 12.442 P-value = 0.00						

Source: Annual Reports

Table 3 presents the outcome of the regression model to investigate how specific variables affect the profitability of insurance companies in Nepal. R^2 and its adjusted R^2 values are 0.474 and 0.436, respectively. The regression model's total explanatory power is 47.4 percent. This indicates that variations in the explanatory variables—ER, FL, CR, Ln SIZE, and Ln AGE could explain 47.4 percent of the variation in insurance companies' profitability. F statistics, which p-value (0.000) is significant that represents the model is fairly fitted statistically. The absence of multicollinearity is shown by VIF for each independent variable that is less than 10. The claim ratio (CR), financial leverage (FL), expense ratio (ER), and company size (Ln SIZE) all have a major impact on the insurance companies' profitability (NPM). The profitability (NPM) of Nepalese insurance companies is significantly impacted negatively by the expense ratio (ER) and claim ratio (CR). The results indicate that one unit decrease in expense ratio and claim ratio result in an increase in net profit margin and vice-versa of the insurance companies. These results are consistent with Ortynski (2016) and inconsistent with Bhattarai (2020). Similarly, there is significant positive effect of financial leverage (FL) and size of company (Ln SIZE) on profitability (NPM) of insurance companies in Nepal. The results reveal that an increase of one unit in financial leverage (FL) and size of company (Ln SIZE) results in an increase in profitability (NPM) of insurance companies. The results are consistent with the study of Charumathi (2012), Ortynski (2016), Alomari (2017), Banerjee and Majumdar (2018), Bhattarai (2020) and Wolde et al. (2020). The results also show that the profitability (NPM) of insurance companies in Nepal is not significantly impacted by the age of the company (Ln AGE).

Conclusion

An organization's profitability reflects its capacity to turn a profit on all of its business activities. Profitability of the company is major concern as well as major indicator of the financial performance of any business organizations. It also determines the existence of the company in the competitive market. There is a significant role of insurance companies in the Nepalese economy. The goal of this study is to examine the factors that affect Nepalese insurance firms' profitability. This study, which includes 75 observations encompassing the years 2016/17 to 2020/21, is based on secondary data from 15 sample insurance companies. The study findings indicate that the profitability of insurance companies in Nepal is influenced by various factors, including the expense ratio, financial leverage, claim ratio, and company size. The profitability of insurance firms in Nepal is positively impacted by financial leverage and company size, whereas expense ratios and claim ratios have a significant negative impact. The result also reveals that there is no effect of age of company on profitability of the insurance companies.

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