Factors Affecting Financial Performance of Nepalese Life Insurance Companies

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Abstract

This research examines the determinants affecting the financial performance of life insurance companies in Nepal, with a focus on key metrics such as Return on Assets (ROA) and Return on Equity (ROE). The study employs secondary data from six Nepalese life insurance companies, using descriptive statistics, correlation analysis, and multiple regression techniques to evaluate the influence of factors such as company size, company age, liquidity, inflation, and premium growth. The findings reveal that company size, company age and liquidity have a negative impact on ROA, whereas premium growth and inflation exhibit positive effects. In contrast, inflation, company age and company size negatively impact ROE, while premium growth and liquidity positively influence ROE. Among the variables analyzed, company size emerges as a significant predictor of financial performance. The results underscore the importance of both internal factors, such as premium growth and company-specific attributes, and external conditions like inflation, in shaping the financial outcomes of Nepalese life insurance companies. The study highlights the necessity for effective financial and operational management strategies to achieve sustainable performance.

Keywords: *Company age, Company size, Financial performance, Inflation, Liquidity, Nepalese Life Insurance, Premium growth, Return on assets, Return on equity.*

1. Introduction

The financial performance of companies has garnered significant attention from financial experts, researchers, the public, and corporate management. However, identifying the most successful firms remains challenging, as a company may exhibit high profitability while simultaneously facing liquidity challenges. Financial performance is often evaluated using metrics such as profitability, dividend growth, sales turnover, asset base, and capital employed. Despite these measures, there is ongoing debate across various disciplines regarding the most appropriate methods for assessing firm performance and identifying the factors that influence financial outcomes (Liargovas & Skandalis, 2008). Relying on a single indicator is insufficient to capture the full scope of a company's performance; therefore, employing multiple measures provides a more comprehensive evaluation.

Insurance operates as a risk management mechanism where an insured party transfers the financial risk of potential losses to an insurer in exchange for a premium. Rejda et al. (2021) define insurance as a contractual agreement in which the insurer guarantees financial compensation to the insured upon the occurrence of specified losses. This contractual arrangement outlines the terms and conditions under which compensation is provided. The insured pays a predetermined fee, known as the premium, to secure coverage. The insurance premium represents the financial consideration paid to the insurer for the protection offered by the insurance policy. Currently, Nepal has 19 licensed life insurance companies, regulated by the Insurance Board of Nepal (Bima Samiti). These companies provide diverse insurance products, including term insurance, whole life policies, and endowment plans, tailored to meet the needs of the Nepalese population. Insurance functions on the principle of risk pooling, where premiums collected from many policyholders form an aggregated premium fund. The likelihood of claims is determined using mathematical calculations or statistical analysis to ensure sufficient funds are available to cover losses. According to the Pooling Theory, insurance minimizes uncertainty and spreads risk across a broad group of policyholders. Those who do not experience losses effectively support those who do during the policy period. Wiley (2014) described insurance as a financial instrument designed to mitigate specific risks by distributing potential financial burdens among a large group. In this contractual arrangement, the insured pays premiums to the insurer in return for financial protection against defined risks or damages.

2. Literature Review

Empirical studies have revealed varying relationships between financial indicators and the performance of insurance firms. Ngwili (2014), in a study on Kenyan life insurance companies, identified a significant positive relationship between liquidity and profitability (measured by ROA) and recommended increased investments in liquid assets. Similarly, Dey et al. (2015) found a significant positive relationship between company size and profitability (measured by ROE) but observed a negative relationship between profitability, leverage, and capital. Mazviona et al. (2017) examined the performance of insurance firms in Zimbabwe and found that liquidity positively influenced profitability, while company size and capital investment had a significant but negative impact. Likewise, a study conducted in Nigeria indicated a positive correlation between a company's age and profitability. However, it reported a significant but inverse relationship between firm size, growth rate, and profitability, attributing the negative relationship to diseconomies of scale resulting from unregulated growth in company size (Ajao & Ogieriakhi, 2018). Murigu (2014) analyzed the financial performance of non-life insurers in Kenya, using data from 23 general insurance companies covering the years 2009-2012. Secondary data were collected, and variables such as leverage, retention ratio, liquidity, and underwriting risk were studied. Regression analysis was used to assess the relationship between dependent and independent variables. The results showed that financial performance was positively influenced by leverage, equity capital, and management competence, while firm size had a negative impact. Garba and Abubakar (2014) investigated the relationship between board diversity and the financial performance of Nigerian insurance companies. This study, based on 12 listed insurance companies from 2004 to 2009, used secondary data. Variables such as ethnic diversity, board size, and board composition were examined through regression analysis and generalized least squares estimators. The study found that gender diversity and foreign directorship positively influenced the performance of insurance companies, while board composition had a negative impact. Kokobe and Gemechu (2016) explored the impact of financial performance in insurance companies, combining both primary and secondary data collected from 2009 to 2014. The study used variables such as GDP, inflation, and return on assets and employed regression analysis and generalized least squares. The findings indicated a low positive relationship between loss financing and return on equity, and a moderate negative relationship between loss financing and loss ratios.

Maroofi et al. (2017) examined factors affecting the financial performance of insurance companies in the Kurdistan province, using data from 2009 to 2015. The study relied on questionnaires and secondary data, testing reliability with Cronbach's alpha. The results revealed a positive relationship between customer satisfaction and financial performance in insurance companies. Abubakar et al. (2018) explored the impact of firm characteristics on the financial performance of Nigerian listed insurance companies, analyzing data from 2007 to 2016. Secondary data were used, and variables such as liquidity, premium growth, and company age were considered. Robust regression analysis revealed that liquidity and age negatively impacted financial performance. Ali et al. (2018) studied the effect of macroeconomic variables on the financial performance of Islamic banks, using data from 2012 to 2016. Secondary data were obtained from reports by the DEPD, AMBD, and the IMF. The study used fixed effects panel regression and found that GDP growth and inflation positively influenced financial performance. Brahmaiah (2018) analyzed the factors affecting the financial performance of Indian commercial banks, using a sample of 89 banks from 2005 to 2015. The study focused on variables such as GDP, non-performing assets, and operational efficiency, using multiple regression for analysis. The results indicated a positive relationship between GDP and bank performance, while non-performing assets and inflation had negative effects on profitability. Batool and Sahi (2019) studied the determinants of financial performance of insurance companies in the USA and UK during the global financial crisis. Data from 24 insurance companies were analyzed using panel data techniques, covering the period from 2007 to 2016. Variables such as firm size, liquidity, leverage, and GDP were found to have a positive impact, while CPI and interest rates had a negative effect on financial performance. Considering the limited research specific to Nepal, this study seeks to contribute to the existing literature by examining these factors comprehensively. It aims to answer key research questions related to the financial performance of Nepalese insurance companies and provide insights that can guide policymakers, regulators, and insurance firms in enhancing operational efficiency and long-term sustainability. The research questions deal with focusing what are the factors affecting the ROA and ROE of selected insurance company in Nepal? Does premium growth, company size, liquidity ratio, inflation and company age affect financial performance of Nepalese insurance company? Do the factors of ROA and ROE influence Nepalese insurance companies? The primary objective of this study is to investigate the factors influencing the financial performance of life insurance companies in Nepal.

The study focuses on the following specific objectives: To examine how premium growth, company size, liquidity ratio, inflation, and company age impact the financial performance of Nepalese life insurance companies. To assess the effects of key determinants on the financial outcomes of Nepalese life insurance firms. To identify and analyze the critical factors that significantly influence the financial performance of life insurance companies in Nepal.

Hypotheses

H1: Premium growth has a positive and significant impact on the financial performance of insurance companies, as measured by Return on Assets (ROA) and Return on Equity (ROE).

H2: Company size has a positive and significant effect on the financial performance of insurance companies, influencing both ROA and ROE.

H3: Liquidity ratios have a positive and significant relationship with the financial performance of insurance companies, impacting ROA and ROE.

H4: Inflation negatively affects the financial performance of insurance companies, leading to lower ROA and ROE.

H5: Company age has a positive and significant influence on the financial performance of insurance companies, reflected in ROA and ROE.

Research Gap

There is still a large study gap in the context of Nepal, even though there have been many studies on the variables influencing the financial performance of insurance businesses worldwide. Although return on assets (ROA), return on equity (ROE), liquidity ratios, inflation, company age, company size, and premium growth are all factors that have been thoroughly studied in international research, the application and conclusions of these studies are not entirely applicable to the Nepalese market because of its distinct economic, regulatory, and market conditions. Research conducted in Nepal has frequently employed small sample sizes, which limits how broadly the results may be applied (Adhikari, 2017; Shrestha, 2019).

Most previous studies conducted in Nepal have mostly concentrated on a small number of significant insurance companies, neglecting the industry's wider range, which includes smaller and more recent businesses that might have unique opportunities and constraints. Adhikari (2017), for example, only

looked at the financial performance of five major insurance businesses, which might not accurately reflect the variety of traits found in the industry. Furthermore, a more thorough and nuanced research that covers a wider range of businesses over a longer period is necessary due to Nepal's dynamic and quickly changing economic environment, which is marked by shifting inflation rates and changing regulatory regulations.The conceptual framework in existing studies often needs to be more comprehensive. While factors like ROA and ROE are commonly included, other critical variables such as liquidity ratios, company age, company size, and premium growth are often underexplored or inconsistently measured. Additionally, the impact of macroeconomic variables like inflation has not been adequately studied within the specific context of the Nepalese insurance market. Sharma (2020) suggests that these factors, when analyzed together, could provide a more holistic understanding of the financial results of Nepali insurance firms.

Research that employs a larger and more varied sample, including both big and small insurance companies, and looks at a wider range of performance metrics is required in the Nepalese environment. This method would contribute to the creation of a more thorough and accurate picture of the variables affecting financial performance. Furthermore, to capture the changing nature of the insurance market in Nepal, longitudinal studies that consider the effects of economic fluctuations and legislative changes over time are crucial.

Conceptual Framework

A conceptual framework serves as an analytical tool with various applications and contexts. In this study, the conceptual framework outlines the systematic relationships between the dependent and independent variables, aiming to identify the factors influencing the financial performance of Nepalese insurance companies. It functions as an intermediary theory that links all aspects of the research, including problem definition, objectives, literature review, methodology, data collection, and analysis. The conceptual framework illustrating the dependent and independent variables utilized in the study is presented in the following figure.

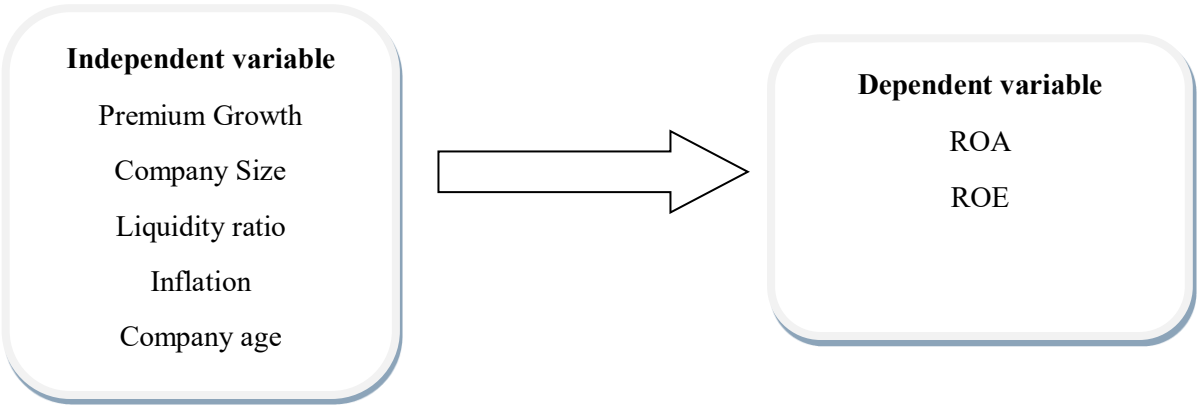

Figure 1: Conceptual Framework

(Source: Magar, M. R. (2021) Nepalese Journal of Insurance and Social Security)

3. Methodology

The study is based on the secondary data The data used in this study is annual, covering a period of 10 years, from 2013/14 to 2022/23. As of the most recent data, there are 19 life insurance companies operating in Nepal, all of which are licensed by the Insurance Board of Nepal (Bema Samiti), the country's regulatory authority for insurance. This study specifically focuses on 6 life insurance companies that have been operational for more than 8 years, including Nepal Life Insurance Company, Life Insurance Corporation (Nepal) Ltd, National Life Insurance Company, MetLife Nepal, Asian Life Insurance, and Prime Life Insurance. The dataset comprises a total of 60 observations over the study period. This study is based on descriptive as well as causal comparative research designs.

Model I

$Y=a+ \beta1x1+ \beta2x2+ \beta3x3 + \beta4x4 + \beta5x4 +eit$

$ROA =a+ \beta1\ PGit + \beta2\ CAit+ \beta3\ LIQRit + \beta4\ CSit + \beta5INFit +eit$

Model II

$Y=a+ \beta1x1+ \beta2x2+ \beta3x3 + \beta4x4 + \beta5x4 +eit$

$ROE = \beta0 + \beta1\ PGit + \beta2\ CAit+ \beta3\ LIQRit + \beta4\ CSit + \beta5INFit +eit$

Where,

y= ROA and ROE

a = y intercept or constant

βn = Regression Coefficients

x_n = premium growth, company age, liquidity ratio, company size, and inflation

e = error term or residual

Independent Variable

Premium Growth

Growth in premiums has a significant impact on insurance firms' financial performance, especially when it comes to return on equity (ROE) and return on assets (ROA). The rise in the total amount of premiums collected by an insurance firm over a given time is known as premium growth, and it is frequently interpreted as an indication of market penetration and business expansion. An insurance company's increased premiums are usually a sign of excellent underwriting procedures and successful sales tactics, which boost profits (Adams & Buckle, 2003). The measurement of premium growth can be conducted by comparing the total premiums written or earned over different time periods, usually year-on-year or quarter-on-quarter. A consistent increase in premiums can enhance an insurer's asset base, contributing positively to ROA, which measures the efficiency of asset utilization to generate profits (Malik, 2011). Premium growth can significantly influence Return on Equity (ROE), which reflects a company's ability to generate profits from its shareholders' equity. An increase in premium volumes typically results in higher income from underwriting and investment activities, thereby boosting overall profitability and returns to shareholders (Lee & Lee, 2012). In this context, premium growth is a key factor, directly impacting the financial performance of insurance companies. It drives revenue generation, allowing firms to capitalize on economies of scale and better risk diversification, ultimately enhancing financial indicators such as Return on Assets (ROA) and ROE, which are essential for assessing profitability and operational efficiency. By exploring the link between premium growth and financial performance, this research aims to provide valuable insights into how sustained premium growth can shape the financial stability of insurance companies, influencing strategic decisions and regulatory frameworks within the industry. Empirical evidence suggests a generally positive relationship between premium growth and financial performance indicators like ROA and ROE. For example, Adams and Buckle (2003) demonstrated that insurance companies with higher premium growth rates tend to show improved financial performance due to enhanced economies of scale and more efficient risk pooling. However, excessive premium growth, if not properly managed, can lead to underwriting risks and negatively impact financial stability.

Company Size

An insurance company's size has a big impact on its financial performance, especially on its return on equity (ROE) and return on assets (ROA). Numerous metrics, including as market share, gross

written premiums, and total assets, can be used to gauge a company's size. Economies of scale, which can result in increased operational efficiency, lower costs per unit of output, and stronger negotiating leverage with suppliers and consumers, are frequently advantageous to larger insurance companies (Adams & Buckle, 2003). It is conceptualized through dimensions such as total assets, which indicate the firm's financial capacity and operational scale; total revenue, reflecting income generation capabilities; and market share, showing competitive positioning. Economies of scale frequently help larger insurance firms reduce expenses per unit and increase profitability. They also have enhanced risk management capabilities and greater market influence, which contribute to financial stability. Empirical research supports these observations: studies by Malik (2011) and Lee (2014) demonstrate that larger insurers typically achieve better financial performance due to cost efficiencies and advanced risk management. Additionally, Adams and Buckle (2003) and Grace and Hotchkiss (1995) show that increased size correlates with improved financial stability and competitive advantages. This relevance is essential to our research because it clarifies how differences in business size affect financial indicators like Return on Equity (ROE) and Return on Assets (ROA), providing information on the strategic and operational advantages of larger insurance companies.

Liquidity Ratios

The liquidity ratio plays a pivotal role in determining the financial performance of insurance companies, especially in terms of Return on Assets (ROA) and Return on Equity (ROE). Commonly measured by ratios such as the current ratio (current assets divided by current liabilities) and the quick ratio (liquid assets divided by current liabilities), liquidity reflects an insurance company's ability to meet its short-term obligations. A higher liquidity ratio indicates that the company possesses enough liquid assets to cover its immediate liabilities, which is vital for ensuring financial stability and operational efficiency. These liquidity measures assess the firm's capacity to fulfill short-term liabilities without resorting to additional borrowing or asset sales. In the insurance sector, maintaining sufficient liquidity is crucial for meeting claims promptly and maintaining smooth operations. Empirical studies, such as those by Al-Tamimi (2010) and Miller and Modigliani (1961), demonstrate that higher liquidity ratios are associated with better financial health and operational flexibility. Adequate liquidity in insurance companies allows them to manage underwriting risks effectively and take advantage of profitable investment opportunities without compromising financial stability. This study emphasizes how liquidity influences financial performance, shedding light on how insurance companies balance operational efficiency with financial stability, thereby affecting key metrics like

ROA and ROE. Furthermore, liquidity significantly impacts ROE, a measure of profitability relative to shareholders' equity, indicating how well the company uses its equity to generate profits. High liquidity can foster a stable operating environment, enabling the company to deploy its equity more efficiently, thereby boosting investor confidence and supporting sustainable growth, which ultimately improves ROE (Eljelly, 2004). Adequate liquidity also reduces the cost of capital, as financially stable companies often benefit from lower borrowing costs. However, it is important to strike a balance, as excessive liquidity may imply that the company holds too many assets in low-return investments, which could negatively affect profitability and, in turn, ROA and ROE. On the other hand, low liquidity can lead to financial distress and higher borrowing costs, thereby impairing financial performance (Shiu, 2004).

Inflation

The financial performance of insurance firms is greatly impacted by inflation, especially in terms of return on equity (ROE) and return on assets (ROA). When prices generally rise and money's purchasing power declines in tandem, this is referred to as inflation. It affects underwriting, claims handling, and investment returns, among other areas of an insurance company's operations. Measures that quantify the average changes in prices over time, like the Producer Price Index (PPI) and the Consumer Price Index (CPI), are used to comprehend it. Inflation impacts various dimensions of financial performance, including cost structures and revenue streams. For insurance companies, inflation can affect claims costs, investment returns, and overall profitability. High inflation can squeeze profit margins by raising claims costs and decreasing the real value of premium income, according to empirical studies. Studies like those by Friedman (1977) and Ghosh and Ghosh (2010) show how inflation impacts financial performance by changing the value of reserves and the cost of claims, which in turn affects metrics like return on equity (ROE) and return on assets (ROA). In the context of our research, looking at how inflation affects financial performance gives us a thorough understanding of how external economic factors impact financial performance and how inflationary pressures interact with firm size to affect the operational efficiency and profitability of insurance firms. Previous studies have also shown mixed results regarding the impact of inflation on insurance company performance. Some studies indicate that moderate inflation may be managed through prudent underwriting and investment strategies, whereas high inflation often has a detrimental effect (Redmond, 2010). For example, Redmond (2010) found that during periods of high inflation,

insurance companies in emerging markets struggled to maintain profitability due to rapidly increasing claims costs that outpaced premium adjustments.

Company Age

In the insurance sector, a lot of study has been done on the connection between a company's age and its Return on Equity (ROE) and Return on Assets (ROA). While ROE shows how well a corporation uses shareholders' equity to generate profit, ROA gauges a company's capacity to make money of its assets. When evaluating the stability and financial performance of an insurance company, both indicators are essential. Company age, which is defined as the length of time a business has been in existence, considers factors including operational stability, acquired experience, and market reputation. In the insurance industry, older companies often have more refined risk management practices, established customer relationships, and greater market knowledge, which can positively influence financial performance. Empirical research supports this view, with studies such as those by Cheng et al., (2018) and Deloof (2003**)** demonstrating that older firms generally exhibit better financial stability and profitability due to their experience and operational maturity.

4. Results and Discussion

Descriptive Statistics

Table 1 presents the descriptive statistics for both dependent and independent variables of six Nepalese life insurance companies during the study period from 2013/14 to 2022/23. The dependent variables include ROA (Return on Assets), calculated as the ratio of net income to total assets, expressed as a percentage, and ROE (Return on Equity), calculated as the ratio of net income to total equity, also expressed as a percentage. The independent variables are as follows: CS (Company Size), represented by the total assets of the insurance company in billions of Rupees; CA (Company Age), measured by the number of years the company has been in operation; LIQ (Liquidity), determined by the ratio of current assets to current liabilities, expressed as a percentage; PG (Premium Growth), measured by the percentage change in premium; and INF (Inflation), indicated by the change in the consumer price index, expressed as a percentage.

Table 1: Descriptive Statistics of Dependent and Independent Variables

Variables	Minimum	Maximum	Mean	Std. Deviation
ROA	0.00	14.71	3.41	3.16
ROE	4.94	24.02	14.34	4.99
PG	8.78	142.00	26.03	19.00
CS	3.37	77.82	36.09	23.25
LIQ	1.05	15.96	5.07	4.58
INF	3.60	9.04	6.18	2.10
CA	3.00	30.00	13.00	6.73

(Source: SPSS output)

The descriptive statistics for the Nepalese life insurance companies show the following results. Return on Assets (ROA) varies between 0 percent and 14.71 percent, with an average of 3.41 percent. Return on Equity (ROE) ranges from 4.94 percent to 24.02 percent, yielding an average of 14.34 percent. Premium growth fluctuates from 8.78 percent to 142 percent, with an average of 26.03 percent. Company size spans from 3.37 billion to 77.82 billion Nepali Rupees, with a mean of 36.09 billion Nepali Rupees. Liquidity ratios vary between 1.05 percent and 15.96 percent, averaging at 5.07 percent. The inflation rate fluctuates between 3.60 percent and 9.04 percent, with an average of 6.18 percent. Company age ranges from 3 to 30 years, with an average age of 13 years. The standard deviation (SD) indicates the greatest variation for the independent variable company size and the least variation for inflation.

Correlation Analysis

Table 2 presents the bivariate Pearson's correlation coefficients for the dependent and independent variables of six Nepalese life insurance companies over the period from 2013/14 to 2022/23. The dependent variables include ROA (Return on Assets), which is calculated as the ratio of net income to total assets (expressed as a percentage), and ROE (Return on Equity), which is the ratio of net income to total equity (also expressed as a percentage). The independent variables consist of CS (Company Size), representing the total assets of the insurance company in billion Nepali Rupees, CA (Company Age), indicating the number of years the company has been in operation, LIQ (Liquidity), which is the ratio of current assets to current liabilities (expressed as a percentage), PG (Premium Growth), measured as the percentage change in premium, and INF (Inflation), defined as the percentage change in the consumer price index.

Table 2: Pearson's Correlation Coefficients Matrix

Variables	ROA	ROE	PG	CS	LIQ	INF	CA
ROA	1						
ROE	.153	1					
PG	.079	.044	1				
CS	-.410**	-.221	-.172	1			
LIQ	-.142	.186	.053	.226	1		
INF	.004	-.032	-.089	-.512**	-.232	1	
CA	-.260*	-.543**	-.076	.467**	.453**	-.301*	1

(Source: SPSS output)

Note: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent levels respectively

Table 2 illustrates the relationships between various independent variables and the dependent variables, ROA and ROE. It shows a positive correlation between premium growth and return on assets, suggesting that an increase in premium growth leads to higher returns on assets. Conversely, company size exhibits a negative relationship with return on assets, indicating that larger companies tend to have lower returns on assets. Similarly, liquidity is negatively correlated with return on assets, meaning that higher liquidity is associated with lower returns on assets. Inflation, on the other hand, shows a positive relationship with return on assets, implying that higher inflation is linked to greater returns on assets. A negative relationship is observed between company age and return on assets, suggesting that older companies tend to have lower returns on assets. Company size is significant at the 1% level, while company age is significant at the 5% level.

Regarding return on equity, the results reveal a positive correlation with premium growth, indicating that higher premium growth leads to higher returns on equity. Company size also has a negative relationship with return on equity, implying that larger companies generally have lower returns on equity. Liquidity is positively related to return on equity, suggesting that higher liquidity is associated with higher returns on equity. However, inflation exhibits a negative relationship with return on equity, indicating that higher inflation leads to lower returns on equity. Additionally, company age has a negative relationship with return on equity, indicating that older companies tend to have lower returns on equity. Company age is significant at the 1% level.

Regression Analysis

Table 3: Estimated Regression Results - Return on Assets

Model	Intercept	Regression coefficients						SEE	F-value
		PG	CS	LIQ	INF	CA	R2		
1	3.073	0.013					0.006	3.18	0.362
	(4.393)**	(0.06)							
2	5.422		-0.056				0.168	2.91	11.686
	(7.778)**		(3.419)**						
3	3.91			-0.098			0.02	3.16	1.188
	(6.404)**			(1.09)					
4	3.381				0.005		0	3.19	0.001
	(2.619)*				(0.027)				
5	5.004					-0.122	0.068	3.08	4.221
	(5.752)**					(2.054)*			
6	9.708	-0.01	-0.071	-0.036	-0.459	-0.042	0.239	2.88	3.391
	(4.526)**	(0.33)	(3.378)**	(0.391)	(2.140)*	(0.608)			

Notes: Figures in parenthesis are t-values.
The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
Return on asset - Dependent variable.

Table 3 presents the beta coefficients for the relationship between various factors and return on assets. The coefficient for premium growth is positive, indicating that an increase in premium growth positively impacts return on assets. This result aligns with the findings of Schumacher (2009). In contrast, the coefficient for company size is negative, suggesting that a larger company size negatively affects return on assets, consistent with Charumathi's (2012) findings. Similarly, the coefficient for liquidity is negative, indicating that higher liquidity has a detrimental effect on return on assets, which is in line with Olagunju et al. (2011). The coefficient for inflation is positive, suggesting that inflation positively influences return on assets, a result supported by Osunsan et al. (2011). The coefficient for company age is negative, implying that older companies tend to have lower returns on assets, which contradicts Rajha's (2016) findings. Additionally, the regression results show the significance levels of the variables. Company size is significant at the 1% level, and premium growth explains only a small portion (0.6%) of the variance in return on assets, suggesting a minimal impact on the dependent variable. Company size, with a coefficient of 16.8%, demonstrates a moderate ability to explain the variability in return on assets, while liquidity has a weak contribution of 2%. Inflation has no significant explanatory power, as its coefficient is 0%, indicating no influence on return on assets. Company age, at 6.8%, explains a small fraction of the variation in return on

assets. Overall, the model explains 23.9% of the variability in return on assets, leaving 76.1% unexplained, suggesting the presence of other factors not captured in the model. The most influential variable is company size, while inflation has the least impact. The regression results for firm size, firm age, liquidity, premium growth, and inflation with the Z-score of Nepalese insurance companies are presented in Table 4

Table 4: Estimated Regression Results - Return on Equity

Model	Intercept	Regression coefficients						SEE	F-value
		PG	CS	LIQ	INF	CA	R2		
1	14.038 (12.693)**	0.012 (0.338)					0.002	5.022	0.114
2	16.052 (13.652)**		-0.047 (0.727)				0.049	4.903	2.983
3	13.314 (13.927)**			0.203 (1.441)			0.035	4.94	2.076
4	14.803 (7.272)**				-0.075 -0.24		0.001	5.025	0.058
5	19.568 (16.386)**					-0.402 (4.920)**	0.294	4.223	24.209
6	23.284 (9.035)**	-0.02 (0.808)	-0.016 (0.655)	0.576 (5.161)**	-0.473 (1.835)*	0.602 (7.261)**	0.559	3.461	13.676

Notes: Figures in parenthesis are t-values.
The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
Return on equity - Dependent variable.

Table 4 reveals that the beta coefficient for premium growth is positively associated with return on equity, suggesting that an increase in premium growth positively influences return on equity. This result aligns with the findings of Kumari (2002). Similarly, the beta coefficient for company size is negative, indicating that larger companies tend to experience lower returns on equity, which is inconsistent with the research by Coad et al. (2013). The beta coefficient for liquidity also shows a positive relationship with return on equity, suggesting that higher liquidity positively impacts return on equity, in line with the findings of Ali et al. (2011). Furthermore, the beta coefficient for inflation is negative, indicating that higher inflation adversely affects return on equity, which supports the findings of Pasiouras and Kasmidou (2007). Additionally, the beta coefficient for company age is

negative, suggesting that older companies tend to have lower returns on equity, consistent with Rajha (2016). The regression analysis further shows that the beta coefficient for company age is significant at the 1% level. Premium growth value of 0.2% suggests that ROE has a negligible effect on explaining the variation in premium growth. Its role in predicting this variable is minimal. Company size of 4.9% indicates that ROE significantly influences company size. It has a strong predictive relationship with this variable. With value of 3.5%, ROE has a limited but noticeable impact on explaining liquidity. While the effect is not strong, it is still evident in the model. The 0.1% implies that ROE contribute to explaining any variation in inflation. This variable is affected to some extend by the changes in ROE. A value of 29.4% shows that ROE has a moderate impact on company age. Its influence on this variable is minor. Overall model of 55.9% represents the combined explanatory power of ROE for all variables, this indicates that ROE accounts for a significant portion of the total variance. However, 44.1 % of the variability remains unexplained, suggesting other factors are at play. Most impactful variable: ROE has the strongest relationship with company size. Least impactful variable: ROE does not influence inflation.

5. Conclusion

The primary objective of this study is to explore the factors influencing the financial performance of Nepalese insurance companies. The study utilizes secondary data collected for 16 insurance companies, covering 60 observations from the fiscal years 2013/14 to 2022/23, focusing on the main determinants of financial performance in Nepalese insurance firms. Data were obtained from the annual reports of Rastra Bema Samiti and individual insurance companies in Nepal. This study employs a descriptive and causal-comparative research design to identify the relationship between independent and dependent variables. The causal-comparative design is aimed at establishing the cause-and-effect relationships between various variables and the financial performance of Nepalese insurance companies. It also seeks to understand the directions, magnitudes, and forms of the relationships between the studied variables. Specifically, this research analyzes the relationship between company size, premium growth, liquidity, inflation, company age, return on assets (ROA), and return on equity (ROE) of Nepalese insurance companies during the period from 2013/14 to 2022/23.

The primary conclusion of this study is that company size and liquidity negatively impact return on assets (ROA), while premium growth, inflation, and company age exhibit a positive influence on

ROA. The regression results further indicate that the beta coefficient for company size is significant at the 1% significance level. The study also establishes that company size is a key determinant of financial performance in Nepalese insurance companies. In addition, the results reveal that inflation, company size, company age has a negative effect on return on equity (ROE), whereas premium growth and liquidity have a positive impact on ROE. Descriptive analysis shows that the average ROA for the sample is 3.41%, while ROE averages 14.34%. Premium growth has an average of 26.03%, and company size averages 36.09. Liquidity has an average of 5.07%, and the inflation rate averages 6.18%. Company age averages 13 years. The Pearson correlation matrix for the Nepalese insurance companies indicates that company size, company age, and liquidity have a negative relationship with ROA. Conversely, premium growth and inflation show a positive relationship with ROA. A positive relationship is observed between premium growth, and liquidity with ROE, while inflation, company size and company age negatively correlate with ROE. Company size is significant at the 1% level.

The regression analysis confirms that company size, company age and liquidity have a negative impact on ROA, while premium growth and inflation positively influence ROA. The beta coefficient for company size remains significant at the 1% level. Additionally, inflation, company age and company size are negatively affecting ROE, whereas premium growth and liquidity positively affect ROE. Ultimately, the study concludes that company size, followed by inflation, is the most influential factor explaining variations in the financial performance (in terms of ROA and ROE) of Nepalese insurance companies.

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