Factors affecting the financial performance of Nepalese Life Insurance Companies

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ABSTRACT

Insurance services are now being integrated into wider financial industry and the insurance sector plays an important role in service-based economy of Nepal. This study examines the factors affecting financial performance of life insurance in the context of Nepalese insurance companies. Return on assets and return on equity are selected as the dependent variables. The selected independent variables are liquidity, leverage, firm age and firm size. The study is based on secondary data of 5 insurance companies with 25 observations for the period from 2073/74 to 2077/78. The data is collected from the reports published by Beema Samiti and Annual Reports of selected life insurance companies. The regression models are estimated to test the factor affecting the financial performance of Nepalese life insurance companies. The study showed that firm size has a positive impact on return on equity and negative impact on return on assets. It indicates that larger firm size leads to decrease in return on assets and increase in return on equity. Likewise, leverage has a positive impact on return on assets and negative impact on return on equity. It indicates that higher the leverage, higher would be the return on assets and lower will be return on equity. Moreover, firm age has a positive impact on return on equity and negative impact on return on assets. It indicates that an increase in firm age leads to increase in return on equity and decrease in return on assets. Moreover, liquidity has a negative impact on return of assets and return on equity. It means that higher the assets liquidity, the lower will would be the return of assets and return on equity. Likewise, there is a negative impact of leverage ratio on return on equity and positive impact on return on assets. It means that an increase in liquidity ratio leads to increase in return on assets and decrease in return on equity.

Keywords: *Return on assets, return on equity, liquidity, leverage, firm age and firm size.*

INTRODUCTION

Financial Performance is fundamental for any firm to retain a competitive advantage and facilitate long-term prosperity. It is widely used to measure the performance of financial institutions all over the world. It is one of the most important objectives of financial management since one of the main tasks and goals of financial management is to increase shareholders' wealth. A well-developed insurance sector is a boon for economic development as it provides long-term funds for infrastructure development at the same time strengthening the risk-taking ability of the country. Financial institutions encompass a broad range of business operations within the financial services sector including banks, trust companies, insurance companies, brokerage firms, and investment dealers.

It plays a significant role in the socio-economic growth and development of a nation. The insurance sector plays important role in the financial services industry in almost all developed and developing countries, contributing to economic growth, efficient resource allocation, reduction of transaction costs, creation of liquidity, facilitation of economics of scale in investment, and spread of financial losses. It plays a significant role in a country's economic growth and offers financial protection to individuals or firms against monetary losses suffered from unforeseen circumstances (Ismail, 2016). The insurance sector plays a vital role in the service-based economy and its services are now being integrated into the wider financial industry.

Insurance companies are one of the most important

non-banking financial institutions. Insurance is a means of protection from financial losses. It is a form of risk management primarily used to hedge against the risk or contingent uncertain losses. Insurance companies reveal an importance for businesses and because individuals compensate losses and put them in positions, where they were before they occur. In addition, insurers provide economic and social benefits for companies such as, loss prevention and reduction of anxiety (Derbali & Jamel, 2018). Insurance can be defined as a service that provides a benefit upon the occurrence of a risk. Delivery, usually financial, may be for an individual, association or business in exchange for a perceived contributions or premiums (Derbali, 2014). Thus, insurance is economic sector, which includes the design, production and marketing of this type of service.

The need to be safe and protect from danger threatening property and the physical integrity of a person is inherent in human nature. This need has increased in flow of goods and services in the country economy through the insurance (Zouhaier, 2014). For economic development, investment are necessary, investments are made out of 2 savings. By insurance, the savings are channeled to investment projects, which are the main driving force for country development. The processes that take place in a country have supported for country economy (Ungur, 2016). Insurance companies provide unique financial services to the growth and development of every economy. Such specialized financial services range from the underwriting of risks inherent in economic entities and the mobilization of large amount of funds through premiums for long-term investments. Thus, Insurance Company is a major instrument for the mobilization of savings of people. These savings are channelized into investment for economic growth. Insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries (Rao & Srinivasulu, 2013). Hence, Insurance Good performance is very essential to country as well as companies itself.

Company performance is very essential to determine success of any organization. Performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantages (Iswantia & Anshoria, 2007). Financial performance is a measure of an organization; earnings profit appreciation in value, which can be observed through rise in organization share price. Insurance performance is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, returns on investment and return on equity. Due to several reasons, Nepalese insurance market has not been effective and efficient (Nepal, 2012). Although, the expansion of insurance market during last two decades is found satisfactory comparing to the previous four decades growth rate. To measure the growth of insurance activities some parameters are considered such as Premium collection, investments, tax revenue to government (Ghimire, 2013).

A well-developed and evolved insurance industry is a boon for economic development as it provides long-term funds for development (Ahmed, Ahmed & Ahmed, 2010). But In Nepal, The insurance doesn't have a long history. Modern insurance company began from 1947 A.D. Due to lack of awareness, people were not serious about the significance of different aspects of insurance. This resulted in people suffering heavy losses during accidents. The first insurance company was named as "Maal Chalani ra Bima Company" which was later renamed as "Nepal insurance and Transport Company" in 1959 and further renamed as "Nepal Insurance Company 3 Ltd". In 1968, the government of Nepal established "Rastriya Bima Sasthan" under the Company act. Beema Samiti (Insurance Board) is an autonomous body, established to develop, systemize, regularize and regulate the insurance business of Nepal under Insurance Act, 1992" (Insurance Board of Nepal). Insurance company collects funds as premium method in accordance to their nature and corporate objectives. According to National board of Nepal, 36 companies had registered within 2018 November. In Nepal, the rapid development of financial markets, banks and insurance companies are facing intense competition. Traditional performance management appears to be insufficient to meet the needs of strategic development financial institutions. There was a good performance of many sectors such as banking sector; the insurance sector does not react to the growth as like banking sectors of Nepalese economy. The overall financial performance of insurance companies in Nepal is somehow weak expect for some companies which accomplished some revenues (Kumar, 2013). Financial performance of insurance company can measure by using different variables and prospective. The economy of Nepal is characterized by lower per capital income, lack of sufficient infrastructure for development high population higher population growth rate. In such condition, this study tries to examine empirically the impact of firm-specific characteristics (size, leverage, liquidity and age) on the performance of life insurance companies in Nepal with entitled "Factors Affecting Financial Performance of life Insurance Companies of Nepal".

LITERATURE REVIEW:

BarNiv and Hershbarger (1990) have revealed that among the study variables firm size and change in assets mix were significantly effects on life insurer's financial health in Japanes and Taiwanes insurance companies' cases.

Chen and Wong (2004) have analyzed the banks specific factors on profitability of life insurer's insolvency in four different countries i.e. Singapore, Malaysia, Taiwan and

Japan. The study found that the firm size has positive and statistically significant with life insurer's insolvency. The asset mix has negative and significant in Janpanese and Taiwanes samples.

Al-Shami (2008) has determined the profitability of UAE twenty five insurance companies' stock market panel data at the period of 2006 and 2007. The study revealed that firm size and volume of capital have positive and significant with profitability. Whereas leverage ratio and loss ratio have statistically negative effects on profitability.

Ahmed, Ahmad and Usman (2011) have analyzed that performance of life insurance companies in Pakistan of the period 2001-2007. The results of the study demonstrated that size has most powerful factors to determine the performance. The remaining variables such as growth of written premium, age, leverage, tangibility and liquidity has not significant effects.

Almajali, Alamro, and Al Soub (2012) have assessed on financial performance of Jordanian insurance companies which were listed on Amman stock exchange from 2002 to 2007. The variables leverage, size, liquidity, management competence index have positive and statistically significant on financial performance. The year of foundation was not significant effects. The study recommended that the highly qualified staffs may increase the company's assets as well as financial performance.

Cekrezi (2015) has studied on financial performance of Albanian insurance companies. The leverage, tangibility, flexibility, size, and risk were taken as independent variables. The results revealed that there was positive and significant relationship between tangibility and flexibility with performance indicator return on assets. The variables debt ratio and risk were negative and significant effects on performance. The size did not role to performance measured in Albania.

Djamaluddin, Budiman, Herawaty (2019) have analyzed that affected factors of profitability in Indonesia about 69 general insurance companies from 2012 to 2017. The study has been employed two model such as Generalized Least Square (GLS) and Random Effect Model (REM). The study found that leverage and underwriting risk were significant negative effect on profitability. The company size was significant and positive effect on Return on Assets. While liquidity and tangibility were no effect on return on assets. The study has suggested that the companies need to maintain and reduce the ratio of leverage and underwriting risk because both are proven to have a negative effect on profitability. Besides,

Greene and Segal (2004) argued that the performance of insurance companies in financial terms is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, return on

investment and return on equity. Chen et al. (2009) showed that profitability of insurance companies' decrease with the increase in equity ratio. The functional status of insurers does not affect the profitability of being insured but public coverage has significant impact on profitability of insurance companies. Malik (2011) investigated the determinants of profitability in insurance companies of Pakistan. The study showed that there is a significant positive association between size of the company and profitability. The result also showed that the volume of capital is significantly and positively related to profitability. Loss ratio and leverage ratio have negative but significant relationship with profitability. Ahmed et al. (2011) found that performance of Pakistan life insurance companies is determined by size, risk and leverage.

Shiu (2004) assessed the determinants of the performance of the UK general insurance companies, over the period 1986–1999 using three key indicators: investment yield, percentage change in shareholders' funds and return on shareholders' funds. The study showed that the performance of insurers have a positive correlation with the interest rate, return on equity, solvency margin and liquidity. However, there is a negative correlation of firm performance with inflation and reinsurance dependence. Similarly, Ikonic et al. (2011) analyzed the profitability of the Serbian insurance companies by applying IMF CARMEL methodology. The study revealed that capital adequacy is vital for a company as it generate a good level of profitability. In addition, Kozak (2011) examined the determinants of the profitability of 25 general insurance companies from Poland during 2002–2009. By applying a regression model, the study found that growth of gross written premiums, operating costs reduction, GDP growth and growth of the market share of the companies with foreign ownership have a positive impact on the performance of insurance companies. Moreover, Mwangi and Murigu (2015) argued that firm size has a negative relationship with the profitability of insurance companies. However, leverage has a positive relationship with profitability.

Burca and Batrinca (2014) analyzed the determinants of the financial performance in the Romanian insurance market during the period 2008–2012. The study concluded that the underwriting risk has a negative effect on financial performance. It implies that taking an excessive underwriting risk can affect the company's stability through higher expenses. The study also showed that there is a positive linkage between firm size and the insurers' financial performance. It indicates that larger firms have more resources, better risk diversification, complex information systems and better expenses management. Moreover, the insurance financial leverage reflects the potential impact of technical reserves' deficit on equity in the event of unexpected losses and has a negative influence on the financial performance. Moreover, Curak

et al. (2011) assessed the determinants of the financial performance of the Croatian composite insurers between 2004 and 2009. By applying panel data technique, the study showed that company size, underwriting risk, inflation and return on equity have a significant influence on insurers' profitability.

Almajali et al. (2012) analyzed the insurance companies listed on the Amman Stock Exchange during 2002-2007. The study showed that liquidity, leverage, company size and management competence index have a significant positive effect on financial performance of the insurers. Similarly, Pervan et al. (2012) assessed the factors affecting the profitability of the insurance companies between 2005 and 2010. By using a dynamic panel model with GMM estimator, the study showed a significant negative influence of the loss ratio on profitability. Similarly, the study also showed a significant positive influence of age, market share and past performance on current performance. Furthermore, Mehari and Aemiro (2013) examined the impact of the Ethiopian insurance companies' characteristics on their performance. The study included 9 insurance companies which are analyzed through panel data technique during 2005–2010. The results showed that company size, loss ratio, tangibility and leverage have significant impact on the insurance companies' profitability. However, growth of gross written premiums, age and liquidity have an insignificant impact on the insurance companies' profitability.

In the context of Nepal, Upadhyaya (2020) found that firm size have positive impact on return on assets. However, leverage ratio and liquidity ratio have negative impact on return on assets. On contrary, leverage ratio has a positive impact on return on equity. Jaishi and Poudel (2021) found that leverage, firm size, liquidity and tangibility have positive and significant impact on the financial performance of Nepalese insurance companies. Pradhan and Shrestha (2015) found that liquidity is negatively and insignificantly related to return on equity. Ojha (2018) revealed that leverage has a positive and significant correlation with return on assets but negative and significant correlation with return on equity. Likewise, Pradhan (2014) found that liquidity is negatively related to firm profitability. Poudel (2019) found that there is a positive relationship of size with efficiency of bank in Nepal. In addition, Budhathoki et al. (2020) showed that bank size has a positive impact on return on assets. It indicates that larger the bank size, higher would be the return on assets. Moreover, Dahal et al. (2020) examined the liquidity management and financial performance of Nepalese insurance companies. The results showed that insurance premium has positive impact on return on assets and earnings per share. It means that increase in insurance premium leads to increase in return on assets and earnings per share. Likewise, firm size has positive impact on return on assets and earnings per share. It

indicates that increase in firm size leads to increase return on assets and earnings per share. The study also concludes that insurance premium followed by current ratio and firm size is the most influencing factor that explains liquidity management and financial performance of Nepalese insurance companies.

Hussanie, and Joo (2019) have investigated the factors that impact on profitability of life insurance companies in India. The ten year panel secondary data were taken from 2005 to 2015. The study found that liquidity, loss ratio, investment performance, operating margin, premium growth, and tangibility were significant factors to determination profitability. The leverage, commission ratio and size were not effects profitability in Indian insurance companies' cases. The literature review was rigors studied nationally and internationally. The tested independents variables were taken for study from the different studies. Only similar study by Ghimire (2014) has found in Nepalese case. That was not touch the multivariate analysis. The present study has investigate the variables that effects on profitability of insurance companies with help of multiple regression analysis. This studies will fulfill the gap of knowledge Nepalese insurance companies. To identify the result the study has taken following research methodology.

The above discussion shows that empirical evidences vary greatly across the studies on the determinants of firm profitability. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such evidence using more recent data exists in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted. The main purpose of the study is to analyze the determinants of financial performance of Nepalese life insurance companies. Specifically, it examines the impact of firm size, liquidity, age of firm, leverage on return on assets and return on equity of Nepalese insurance companies. The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws the conclusion.

METHODOLOGY

The study is based on the secondary data which were gathered from 5 non merged life insurance companies with 25 observations for the period from 2073/74 to 2077/78. The main sources of data include reports published by Beema Samiti and Annual Reports of selected insurance companies. Table 1 shows the list of insurance companies selected for the study along with the study period and number of observation. The study is based on secondary data. The data were collected from 5 life insurance companies in Nepal. The selected sample insurance companies, were nepal life insurance company

limited, met life insurance, national life insurance, citizen life insurance and life insurance corporation nepal.

THE MODEL

The model used in this study assumes that firm performance depends on different firm specific variables. The selected independent variables are firm size, liquidity, age of firm, leverage . The dependent variables are return on assets and return on equity.

Therefore, the following model equations are designed to test the hypothesis.

$$ROA_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 LEV_{it} + \beta_3 FS_{it} + \beta_4 AF_{it} + e_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 LEV_{it} + \beta_3 FS_{it} + \beta_4 AF_{it} + e_{it}$$

Where, ROA = Return on assets is measured as the ratio of net income to total assets, in percentage.

ROE = Return on equity is measured as the ratio of net income to shareholder equity, in percentage.

LIQ = Liquidity is measured as the ratio of current assets to current liabilities.

LEV = Leverage is measured as the current liabilities to total assets, in percentage.

FS = Firm size is measured as natural logarithm of total assets of insurance companies.

AF=Age of the company is measured as natural logarithm of the number of years from the date of establishment.

The following section describes the variables used in this study along with hypothesis formulation.

Return on assets

ROA provides good information about a firm's financial performance in the terms of using assets to create income. Xuezhui and Dickson (2012) found that bank's profitability has negative relationship with the core capital ratio. However, Kleff and Weber (2008) revealed that the capital level is positively correlated to the return on assets. Likewise, Bektas (2014) found a positive relationship between bank risk and capitalization. Lamberg and Valming (2009) suggested that the adaptation of liquidity strategies have an insignificant impact on ROA. Only increased use of liquidity forecasting and short-term financing during financial crisis had a positive impact on ROA. Ismail (2016) found that liquidity variables such as current ratio and cash conversion cycle have significant positive impact on profitability (ROA).

Return on equity

ROE measures a company's profitability which reveals how much profit a company generates with the money shareholders have invested. Arbiyan and Safari (2009) found a positive relationship between short-term debts and profitability (ROE) but a negative relationship between long-term debts and ROE. Mohd-Zaid et al. (2014) found that liquidity and size have significant relationships with ROE. Shil et al. (2015) revealed that there is negative significant relationship between volume of capital and leverage with financial performance (ROE) and there is insignificant positive relationship of tangibility and liquidity with financial performance (ROE).

FIRM SIZE

Upadhyaya (2020) found that firm size have positive impact on return on assets. Poudel (2019) found that there is a positive relationship of size with efficiency of bank in Nepal. In addition, Budhathoki et al. (2020) showed that bank size has a positive impact on return on assets. However, Browne et al. (2001) found that the company size has a positive relationship with the financial performance of life insurance companies. Similarly, Dey et al. (2015) assessed the factors determining financial performance of life insurance companies of India. The study revealed that there is a positive relationship between financial performance and size of insurance companies. Cooke (1992) examined the impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations. The study suggested that there is a significant and positive relationship between company size and performance. In addition, Athanasoglou et al. (2008) asserted that increase in company size increases the performance of the bank. Furthermore, Almajali et al. (2012) argued that the size of the firm can positively affect its financial performance.

Based on it, this study develops the following hypothesis:

H1: There is a positive relationship between firm size and firm financial performance of Life Insurance Companies of Nepal.

LIQUIDITY

Pradhan and Shrestha (2015) found that liquidity is negatively and insignificantly related to return on equity. Similarly, Pradhan (2014) found that liquidity is negatively related to firm profitability. Likewise, Eljelly (2004) examined the association between profitability and liquidity of joint stock companies in Saudi Arabia using correlation and regression analysis. The study revealed that there is a negative relationship between liquidity and profitability of Saudi companies. Similarly, Molyneux and Thornton (1992) and Goddard et al. (2004) found a negative relationship between liquidity and profitability for European banks in the late 1980s and mid-1990s,

respectively. The study argued that, holding liquid assets imposes an opportunity cost on the bank given their low return relative to other assets, thereby having a negative effect on profitability. According to Panigrahi (2014), increasing profitability would tend to reduce firm's liquidity and too much attention on liquidity would tend to affect the profitability. Lyroudi and McCarty (1993), using the listed companies of London Stock Exchange for 4 years period, revealed that the cash conversion cycle, current ratio and the quick ratio have a negative association with the profitability ratios like net profit ratio, return on assets and the return on equity.

Based on it, this study develops the following hypothesis:

H2: There is a negative relationship between liquidity and firm financial performance of Life Insurance Companies in Nepal.

FIRM AGE

Pradhan et al. (2020) found that firm age has a positive impact on the profitability of Nepalese Insurance companies. Likewise, Lumpkin and Dess(1999) found that there is a positive relationship between companies' age and profitability. Pervan et al. (2012) assessed the factors affecting the profitability of the insurance companies between 2005 and 2010. The study found that there is positive relationship between firm age and profitability. Moreover, Malik (2011) found that there is significantly positive relationship between company size and profitability in the context of Pakistani firms. Moreover, Sorensen and Stuart (2000) argued that companies age affect the firm's performance. Further, the study argued that organizational inertia operating in old firms tends to make them more efficient and profitable. In addition, Liargovas and Skandalis (2008) reported that older firms are more skilled since they have enjoyed the benefits of learning and not prone to the liabilities of newness, hence they have a superior performance.

Based on it, this study develops the following hypothesis:

H4: There is a positive relationship between firm age and firm financial performance of life Insurance Companies.

LEVERAGE:

Companies rely on a mixture of owners' equity and debt to finance their operations. A Leverage Ratio is any one of several financial measurements that look at how much capital comes in the form of debt (loans), or assesses the ability of a company to meet financial obligations. In the case of Nepalese insurance company has not right to collect the fund from long-term debt financing. Therefore, in this situation, the ratio of Current Liabilities to Total

Assets is taken for calculation of Leverage of insurance companies. Leverage ratio of insurance company shows how well or how badly it has managed its reserves (from the policyholders' surplus) to address claims. The goal is to have surplus reserves to be able to pay all possible claims while retaining a profit. A high ratio indicates that a business may have incurred a higher level of debt than it can be reasonably expected to service with ongoing cash flows. Leverage ratios are essentially measures of risk, since a borrower that cannot pay back its debt obligations is at considerable risk of entering bankruptcy protection. However, a modest amount of leverage can be beneficial to shareholders, since it means that a business is minimizing its use of equity to fund operations, which increases the return on equity for existing shareholders.

Based on it, this study develops the following hypothesis.

H5: There is positive relationship between Leverage on firm financial performance of life insurance companies.

RESULTS AND DISCUSSION

Table 1 presents the descriptive statistics of the selected dependent and independent variables during the period 2073/74 to 2077/78. The data provides insights into the financial characteristics of Nepalese companies, including their profitability (ROE and ROA), liquidity, leverage, size, and age. While the mean values offer a snapshot of the average performance and characteristics of the companies, the standard deviations and ranges highlight the variability and diversity within the dataset. The mean ROE is 17.35%, indicating the average return on equity for the companies. With a standard deviation of 2.09, there is relatively low variability in ROE among the dataset. The range from the minimum of 5.8% to the maximum of 54.39% suggests a wide disparity in the profitability of companies in terms of their equity. The mean ROA is 2.12%, indicating the average return on assets for the companies. Similar to ROE, there is low variability in ROA with a standard deviation of 0.2. The range from the minimum of 0.37% to the maximum of 3.6% demonstrates the difference in asset utilization and profitability among the companies. The mean liquidity is 18.56, but with a high standard deviation of 61.18, indicating significant variability in liquidity among the companies. The wide range from 1.59 to 311.1 suggests diverse liquidity positions across the dataset, with some companies having highly liquid assets and others having lower liquidity levels. The mean leverage is 0.09, indicating the average level of leverage (debt financing) used by the companies. With a standard deviation of 0.049, there is moderate variability in leverage across the dataset. The range from the minimum of 0.001 to the maximum of 0.2 indicates different degrees of reliance on debt financing among the companies. The mean size is 10.33, suggesting the

average size of the companies in the dataset. The standard deviation of 0.48 indicates moderate variability in the size of the companies. The range from the minimum of 9.19 to the maximum of 10.94 shows differences in company size, with some being relatively smaller and others larger. The mean age is 16.2 years, indicating the average age of the companies in the dataset. With a standard deviation of 7.05, there is considerable variability in the age of the companies. The range from the minimum of 1 year to the maximum of 24 years demonstrates the diversity in the age distribution of companies.

Variables	Minimum	Maximum	Mean	Standard Deviation
ROE	5.8	54.39	17.35	2.09
ROA	0.37	3.6	2.12	0.2
Liquidity	1.59	311.1	18.56	61.18
Leverage	0.001	0.2	0.09	0.049
Size	9.19	10.94	10.33	0.48
Age	1	24	16.2	7.05

Table 1: Descriptive statistics of variables

The analysis of correlation coefficients provides insights into the relationships between various financial metrics.

Understanding these relationships can help stakeholders assess the financial health, risk profile, and performance drivers of companies. For instance, companies with higher leverage may face liquidity challenges and lower profitability, while larger and older companies may have higher total assets but lower liquidity. These insights can guide decision-making processes such as capital structure management, investment strategies, and risk mitigation efforts. Table 2 shows the Pearson's correlation coefficients of dependent and independent variables of 5 Nepalese insurance companies for the study period from 2073/74 to 2077/78. The dependent variables are ROA (Return on assets is measured as the ratio of net income to total assets, in percentage) and ROE (Return on equity is measured as the ratio of net income to shareholder equity, in percentage). The independent variables are LIQ (Liquidity is measured as the ratio of current assets to current liabilities), Leverage ratio, FS (Firm size is measured as total assets of insurance companies) and AF (Age of the company is measured as the number of years from the date of establishment, in years). Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and the results are presented in

Table 2.

Table 2: Pearson's correlation coefficients matrix

	CA	CL	TA	ROE	ROA	Liquidity	Leverage	size	Age
CA	1.0000								
CL	0.8186	1.0000							
TA	0.4122	0.7436	1.0000						
ROE	-0.0406	-0.0154	0.0950	1.0000					
ROA	-0.2423	-0.4856	-0.5894	0.4017	1.0000				
Liquidity	-0.2026	-0.2665	-0.2911	-0.2161	-0.0897	1.0000			
Leverage	0.4764	0.4071	-0.1864	-0.1061	0.1810	-0.4009	1.0000		
Size	0.5070	0.6965	0.8858	0.1566	-0.5021	-0.4929	-0.0976	1.0000	
Age	0.3803	0.4855	0.6857	0.1917	-0.3829	-0.4355	-0.1899	0.9021	1.0000

Current Assets (CA): Strong positive correlations with Current Liabilities (CL) and Total Assets (TA), indicating that as CA increases, CL and TA tend to increase as well.

Current Liabilities (CL): Strong positive correlation with CA and TA, indicating that as CL increases, CA and TA tend to increase as well.

Total Assets (TA): Moderate positive correlations with CA and CL, indicating that as TA increases, CA and CL tend to increase as well.

Return on Equity (ROE): Weak correlations with other variables, suggesting limited association with CA, CL, TA, and other financial metrics.

Return on Assets (ROA): Moderate negative correlations with CA, CL, and TA, indicating that as ROA decreases, CA, CL, and TA tend to increase.ROA also has a moderate positive correlation with Leverage, suggesting that higher ROA is associated with higher leverage.

Liquidity: Weak to moderate negative correlations with CA, CL, TA, and Leverage, indicating that as liquidity decreases, CA, CL, TA, and Leverage tend to increase.

No strong association with ROE, ROA, Size, or Age.

Leverage: Moderate positive correlation with Size and Age, suggesting that larger and older companies tend to have higher leverage. Weak to moderate negative correlations with Liquidity, ROA, and Age, indicating that as leverage increases, liquidity decreases, ROA decreases, and Age tends to decrease.

Size: Strong positive correlations with CL, TA, and Age, indicating that larger companies tend to have higher CL, TA, and Age. Weak to moderate negative correlations with ROA, Liquidity, and Leverage, suggesting that as Size increases, ROA tends to decrease, Liquidity decreases, and Leverage decreases.

Age: Strong positive correlations with TA and Size, indicating that older companies tend to have higher TA and Size. Weak to moderate negative correlations with ROA, Liquidity, and Leverage, suggesting that as Age increases, ROA tends to decrease, Liquidity decreases, and Leverage decreases.

REGRESSION ANALYSIS

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and results are presented in Table 3. The results are based on panel data of 5 insurance companies with 25 observations for the period from 2073/74 to 2077/78 by using the linear regression model and the model is ROA it = $\beta 0$ + $\beta 1$ LEV it+ $\beta 2$ LIQ it + $\beta 4$ AF it + $\beta 5$ FS it+ eit where, the dependent variable is ROA (Return on assets is measured as the ratio of net income to total assets, in percentage). The independent variables are LIQ (Liquidity is measured as the ratio of current assets to current liabilities), LEV (Leverage), FS (Firm size is measured as total assets of insurance companies, Rs in billion) and AF (Age of the company is measured as the number of years from the date of establishment, in years). More specifically, it shows the regression results of liquidity, Leverage, firm age and firm size on return on assets of Nepalese insurance companies.

TABLE 3: Estimated regression of leverage, liquidity, firm age and firm size with return on assets.						
Regression Statistics						
Multiple R	0.6582					
R Square	0.4332					
Adjusted R Square	0.3198					
Standard Error	0.8436					
Observations	25.0000					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	4.0000	10.8793	2.7198	3.8214	0.0182	
Residual	20.0000	14.2347	0.7117			
Total	24.0000	25.1140				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	25.0953	8.0643	3.1119	0.0055	8.2736	41.9171
Liquidity	-0.0080	0.0038	-2.0890	0.0497	-0.0159	0.0000
Leverage	-0.9100	4.2468	-0.2143	0.8325	-9.7687	7.9487
Size	-2.2868	0.8555	-2.6730	0.0146	-4.0714	-0.5022
Age	0.0545	0.0586	0.9290	0.3640	-0.0679	0.1768

Multiple R: The correlation coefficient is 0.6582, indicating a moderate positive correlation between the independent variables and the dependent variable.

R Square (R^2): This value of 0.4332 means that 43.32% of the variance in the dependent variable (presumably the outcome being predicted) is explained by the independent variables in the model.

Adjusted R Square: The adjusted R Square is 0.3198, suggesting that approximately 31.98% of the variance in the dependent variable is explained by the independent variables, accounting for the number of predictors in the model.

Standard Error: The standard error is 0.8436, indicating the average deviation of the observed values from the predicted values.

Observations: There are 25 data points used in the regression analysis.

ANOVA (Analysis of Variance):

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 3.8214 and a p-value of 0.0182 (which is less than 0.05), we can conclude that the regression model is significant.

RESIDUAL: The residual variance represents the unexplained variance in the dependent variable that is not accounted for by the independent variables in the model.

COEFFICIENTS:

Intercept: The intercept of the regression line is 25.0953, which represents the value of the dependent variable when all independent variables are zero.

Liquidity: It has a statistically significant negative coefficient (-0.0080) with a p-value of 0.0497, indicating that as liquidity decreases, the dependent variable tends to decrease as well.

Leverage: It has a non-significant coefficient (-0.9100) with a p-value of 0.8325, suggesting that leverage may not have a significant impact on the dependent variable in this model.

Size: It has a statistically significant negative coefficient (-2.2868) with a p-value of 0.0146, suggesting that as size decreases, the dependent variable tends to decrease as well.

Age: It has a non-significant coefficient (0.0545) with a p-value of 0.3640, indicating that age may not have a significant impact on the dependent variable in this model.

The regression model overall is significant, indicating that the combination of independent variables explains a significant portion of the variance in the dependent variable. Liquidity and Size appear to be significant predictors in the model, with Liquidity showing a negative relationship and Size showing a negative relationship with the dependent variable. Leverage and Age do not appear to have significant effects on the dependent variable in this model. This analysis can help financial analysts and decision-makers understand the factors influencing the dependent variable and make informed decisions about resource allocation, investment, and financial management strategies.

TABLE 4: Estimated regression of Leverage, liquidity, firm age and firm size with return on equity.						
Regression Statistics						
Multiple R	0.3103					
R Square	0.0963					
Adjusted R Square	-0.0845					
Standard Error	10.8954					
Observations	25.0000					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	4.0000	252.9250	63.2312	0.5327	0.7132	
Residual	20.0000	2374.1890	118.7095			
Total	24.0000	2627.1140				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	56.6983	104.1474	0.5444	0.5922	-160.5493	273.9459
Liquidity	-0.0537	0.0492	-1.0916	0.2880	-0.1564	0.0489
Leverage	-45.9324	54.8461	-0.8375	0.4122	-160.3393	68.4746
Size	-3.6951	11.0487	-0.3344	0.7415	-26.7423	19.3521
Age	0.2486	0.7574	0.3283	0.7461	-1.3312	1.8284

Table 4 shows that the beta coefficients for firm age are positive with return on equity. It indicates that firm age has a positive impact on return on equity. This finding is similar to the findings of Kripa and Ajasllari (2016). Similarly, the beta coefficients for firm size are negative with return on equity. It indicates that firm size has a negative impact on return on equity. This finding is consistent with the findings of Athanasoglou et al. (2008). Similarly, the beta coefficients for leverages are negative with return on equity. It indicates that leverages has a negative impact on return on equity. This finding is consistent with the findings of Cekrezi (2013). Likewise, the beta coefficients for liquidity ratio are negative with return on equity. It indicates that liquidity ratio has a negative impact on return on equity. This finding is similar to the findings of Lyroudi and McCarty (1993).

CONCLUSION

Good performance of a company determines the position of the company in its market and the growth and consolidation of the market. Profitability is one of the most important objectives of financial management, since one of the main tasks and goals of financial management is to increase shareholder's wealth. Liquidity, size, and possibly leverage are significant factors affecting ROA. Higher liquidity and larger size are associated with lower ROA, suggesting inefficiencies in asset utilization or risk management strategies. Leverage doesn't significantly affect ROA in this analysis. The variation of profits between insurance companies over the years, within a country, leads to believe that internal factors or specific factors of a firm play a major role in determining profitability. The study also showed that firm age and firm size have positive impact on return on equity whereas negative impact on return on assets. liquidity ratio has a negative impact on return on equity and return on assets of Nepalese insurance companies. The study concluded that leverage followed by liquidity is the most influencing factor that explains the changes in the return on equity. Likewise, the study also concluded that liquidity followed by firm size and firm age is the most influencing factor that explains the changes in the return on assets in the context of Nepalese insurance companies.

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 five years i.e. from FY 2073/74 to FY 2077/78 .

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

3. Non-availability of the various reference or sources act constraints for the study.

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

5. These Analysis methods do not attempt to capture these qualitative values. How should one quantify the value of a brand, the size of its customer base, or a competitive advantage.

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