ASSESSMENT OF DETERMINANTS OF PROFITABILITYOF NEPALESE LIFE INSURANCE COMPANIES

A Dissertation submitted to the Office of the Dean, Faculty of Management in partial fulfillment of the requirements for the Master's Degree

By
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CERTIFICATE OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled "**Determinants of Profitability of Nepalese Life Insurance Companies**" The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

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Goma Sapkota

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REPORT OF RESEARCH COMMITTEE

Ms. Goma Sapkota has defended research proposal entitled "**Determinants of Profitability of Nepalese Life Insurance Companies***"* successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidance of supervisor Asso. Prof. Dr. Kapil Khanal and submits the thesis for evaluation and viva voce examination.

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APPROVAL SHEET

We have examined the dissertation entitled "**Determinants of Profitability of Nepalese Life Insurance Companies***"* presented by Ms. Goma Sapkota for the degree of Master of Business Studies. We hereby certify that the dissertation is acceptable for the award of degree.

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Goma Sapkota

Researcher

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ABBREVIATIONS

ALICL	:	Asian Life Insurance Company Limited
BS	:	Bikram Sambat
BVPS	:	Book Value Per Share
e.g.	:	Example
EPS	:	Earning Per Share
F/Y	:	Fiscal Year
FS	:	Firm Size
GLICL	:	Gurans Life Insurance Company Limited
i.e.	:	That is
LQ	:	Liquidity
NLICL	:	National Life Insurance Company Limited
NLIL	:	Nepal Life Insurance Company Limited
PG	:	Premium Growth
PLIL	:	Prime Life Insurance Company Limited
ROA	:	Return On Assets
ROE	:	Return On Equity
SD	:	Standard Deviation
SOL	:	Solvency
TA	:	Total Assets

ABSTRACT

The main purpose of the study is to examine the determinants of profitability of Nepalese insurance companies. This study is based on both descriptive and casual comparative research design and this study is based on secondary data. All 17 life insurance companies constitute the population and among of them, Asian Life Insurance Company, Gurans Life Insurance Company Limited, National Life Insurance Company Limited, Prime Life Insurance Company Limited and Nepal Life Insurance Company limited are selected as the sample for the study of determinants of profitability. In this study random sampling was used to find out the result. Correlation coefficients matrix of the Nepalese life insurance companies shows that premium growth has a negative relationship with return on assets. Similarly, firm age has a negative relationship with return on assets. The result also shows that solvency has a negative relationship with return on assets. However, the result also reveals that liquidity ratio has a negative relationship with return on assets. Likewise, book value per share also has negative relationship with return on assets. Furthermore, firm size also has negative relationship with return on assets. The result also shows that premium growth has a negative relationship with return on equity. Similarly, firm age has a positive relationship with return on equity. The result also shows that solvency has a positive relationship with return on equity. However, the result also reveals that liquidity ratio has a positive relationship with return on equity. Likewise, book value per share also has positive relationship with return on equity. Furthermore, firm size also has positive relationship with return on equity. The result in this study therefore, suggested decreasing excess premium growth rate, increasing solvency ratio, reducing the excess liquidity ratio, increasing assets size and increasing book value to increase ROA and ROE of insurance companies in Nepal.

Keywords: *Return on assets, Return of equity, premium growth ratio, solvency ratio, liquidity ratio, assets size, book value*

CHAPTER I
INTRODUCTION

1.1 Background of the study

One of the main goals of financial management is to maximize the owner's wealth, and profitability is a key performance factor (Baker and Powell, 2009). For this reason, profitability is one of the most significant objectives of financial management. A strong insurance industry supports economic growth by bolstering the nation's capacity to take on risk and supplying long-term funding for infrastructure development. Banks, trust companies, insurance companies, brokerage firms, and investment dealers are just a few examples of the diverse business operations that fall under the umbrella of financial institutions in the financial services industry. It is important for a country's socioeconomic development and growth.

In Nepal, the first insurance firm was founded in 2004 B.S. "Nepal Malchalani Tatha Beema Company" was its name. "Nepal Insurance and Transport Company Limited" is the new name of the company. It was further renamed as Nepal Insurance Company Limited to run a non-life insurance business in Nepal later in the year 2048B.S. As a result, Nepal Insurance Company is considered to be the country's original insurance provider.The Nepalese government founded "Rastriya Beema Sansthan" in 2024 BS with a Rs. 1 crore capital under the Company Act. Beginning in Falgun, 2029BS, Rastriya Beema Sansthan operated a life insurance company. It is thought that the Rastriya Beema Sansthan began offering life insurance in 2029BS, marking the beginning of the institutional development of insurance.

The Nepal Beema Pradhikaran (Nepal Insurance Authority), a division of the Ministry of Finance in Nepalese government, oversees insurance businesses in the country. As of March 2023, life, non-life (general), and reinsurance services are provided by 35 insurance companies (life-17, non-life-16, and reinsurance-2).

A life insurance policy is an agreement between an insurance policy holder and an insurance company whereby the insurer agrees to pay a certain amount of money in return for an insurance premium, either at the insured person's death or after a predetermined amount of time.Other occurrences, like a critical sickness or terminal disease, may also cause payment, depending on the terms of the contract. Usually, the

policyholder pays a premium in installments or in one large payment. Benefits could cover additional costs, such burial costs.

In nearly all developed and developing nations, the life insurance business plays a significant role in the financial services sector. It promotes economic expansion, effective resource allocation, lowers transaction costs, increases liquidity, makes investment economics of scale easier, and spreads financial losses. It contributes significantly to the economic expansion of a nation and provides financial security to people or businesses against unanticipated financial losses. The life insurance industry is a significant player in the service-based economy, and the financial industry as a whole is now including its services. Making a profit is a requirement for life insurance firms to be viable in the cutthroat, globalized market. In order to accomplish their goals, insurers cannot draw in outside capital if they are not making money. A company's position in its market, as well as the expansion and consolidation of the market, are determined by its performance. Since increasing shareholder value is one of the primary tasks and purposes of financial management, profitability is one of the most essential financial management objectives. The disparity in earnings among life insurance businesses over time within a nation suggests that internal or firm-specific factors are important determinants of profitability.

Any business that wants to maintain its competitive edge and promote long-term prosperity must be profitable. According to Greene and Segal (2004), the financial performance of insurance firms is often measured by net premium earned, annual turnover, profitability from underwriting, return on investment, and return on equity. According to Chen et al. (2009), the profitability of insurance companies declines when the equity ratio rises. The profitability of being insured is unaffected by the insurers' operational state, whereas the profitability of insurance companies is greatly impacted by public coverage. A major factor in promoting financial stability in an economy is the insurance industry. In recent times, the interaction between various actors in the financial system-insurers, financial markets, banks and other intermediaries has been increasing. Additionally, these companies not only insure and safeguard the financial risk of houses and firms but also significantly contribute to the financial markets.

An important factor in a country's socioeconomic development is its financial institutions. Specifically, insurance companies enable a country's countless economic transactions by means of effective and efficient mechanisms for financial intermediation, indemnity, risk transfer, and savings mobilization. The value of financial institutions like banks, insurance, credit and savings unions, cooperatives, and the like is undeniable in a contemporary economy. These organizations are extremely important for supporting and lubricating national economies. Financial institutions play a crucial role in transferring money from people who have excess money (suppliers of funds) to others who have less money (users of funds), according to Saunders and Cornett (2004). Financial institutions have an impact on our daily lives as well as massive financial flows, which have an impact on corporate earnings, the output of products and services, and even the economic health of entire nations.

Financial institutions serve as a medium of exchange and facilitate business activities, support mobilization of resources through savings and allocate resources to activities with highest returns, follow up investments and exert corporate governance, and offer a diversity of financial instruments. It has been demonstrated that insurance companies, as financial entities, actively support national economic development. Since increasing an owner's wealth is one of the fundamental goals of financial management and profitability is a key performance factor, the primary purpose of all insurance firms is to maximize profits. Insurance firms' profitability is influenced by both firm-specific elements and external influences, both of which hold significant influence. According to Abate and Yuvaraj (2013), financial institutions like insurance companies have a role in ensuring economic activity and support both the stability of the financial system and the nation's economy overall.

The majority of developed and developing nations rely heavily on the insurance sector for economic growth, effective resource allocation, lower transaction costs, increased liquidity, easier access to economies of scale for investments, and the dispersion of financial losses. Insurance businesses have characteristics that are different from other types of business services, because insurance businesses take over various risks from other parties so that insurance companies become risky if not managed properly. By transferring specific risks to a different party, the insurer, who provides a restoration of at least some of the insured's economic losses, insurance serves as a tool to lessen uncertainty for one party, known as the insured. For

emerging countries, as they make up the majority of the insurance market, the insurance industry must be sustainable. Their function as the nation's defense and restoration mechanism is active (Sambasivam & Ayele, 2013).

Insurance firms have a crucial role in risk transfer and sharing, which can provide confidence in the face of uncertain events even when they are caused by several factories. In almost all developed and developing nations, the insurance sector is a significant player in the financial services sector. It promotes economic growth, effective resource allocation, lowers transaction costs, increases liquidity, makes investment economics of scale easier, and spreads financial losses. With the use of insurance, individuals can shift their risk to the insurer in exchange for a predetermined payment known as the premium. A portion of that risk may then be transferred by the insurer to additional insurers or reinsurers. Activities that would normally be unaffordable if one party had to assume all the risks are made feasible by insurance. For the day that an unforeseen loss or damage to belongings occurs, short-term insurance protects significant assets and property. It includes all insurance policies, with the exception of life insurance coverage. It plays a big part in a nation's economic development and provides financial security to people or businesses in case of unanticipated losses. According to Ismail (2016), the insurance industry contributes significantly to the economic development of a nation and provides financial security to people and businesses by shielding them from unanticipated losses. Individuals and families that do not have insurance coverage may be more susceptible to emergencies and the unpredictability of daily living.

Nepalese insurance companies are prosperous businesses that have operated successfully in the country from their founding and have never experienced a loss. Therefore, in addition to national insurance businesses, there are currently a growing number of international insurance companies conducting business in the insurance industry. The majority of businesses turn a profit every year. If we ignore it in the balance sheet and profit and loss statement, it's neither noteworthy or satisfying given the volume of transactions. Year on year, transaction volumes are rising dramatically, but net earnings growth is not keeping pace. It's due to intense market competitiveness and private waiting in the pouring rain. The lack of appealing premium collection schemes that offer discounts and incentives to policyholders for timely premium payments, the carelessness of agents, brokers, and development officers in failing to assist the company with premium collection despite receiving sizable insurance

commissions, the carelessness in failing to assess the investment sector prior to investing funds, and the drawn-out acceptance, issuance, and dispatch procedures of policies are all contributing factors to the lower profits of Nepal's insurance companies. using solely conventional insurance plans and policies (Khanal, 2020).

1.2 Problem statement

With the increasing trend of sudden corporate failure in both global and local context, shareholders and other stakeholders are increasingly becoming more concerned of the financial performance of their firms. The life insurance sector has always been harder to measure for profitability when compared to other financial institutions or corporations because of the special accounting method that these organizations employ. Diverse academics have reached differing conclusions about the factors that influence an insurer's profitability through empirical research. Numerous factors, including as real mortality experience, investment earnings, capital gains or losses, the amount of policyholder dividends, and federal and state taxes, all have an impact on insurers' profitability.

Insurance protects a person or business against financial losses brought on by unanticipated events and is crucial to the economic development of a nation. This is due to the fact that risks and uncertainties are a part of life, and insurance has developed as a means of offering protection from these elements. Understanding the factors that influence insurers' profitability is vital in this situation. Profitability is the driving force behind all project investments and a key indicator of a company's success. It is an industry's or company's capacity to produce profits. The insurance industry is a significant player in the financial services sector in both developed and developing nations. It promotes economic expansion, effective resource allocation, lowers transaction costs, increases liquidity, makes investment economics of scale easier, and spreads financial losses.

One of the main goals of financial management is to increase the owner's wealth and profitability, which in turn leads to improved financial performance, making profitability one of the most significant objectives of financial management. Profitability is a crucial metric for assessing efficiency, but it should not be interpreted as the only proof or measure of effectiveness. Harrington (2005) found that profitability is one of the most important objectives of financial management because one goal of financial management is to maximize the owner` s wealth.

Evaluating the factors influencing insurer performance has become more significant in the literature on corporate finance because these businesses not only offer the means of transferring risk but also assist in allocating capital in a way that supports economic activity. But not much has been said about it, especially in underdeveloped nations (Ahmed et al., 2011).

The insurance business's profitability has always been hard to compare to other financial institutions or firms because of the special accounting method that the insurance industry uses. Scholars who have conducted empirical research on the factors that influence an insurer's profitability have come to varying conclusions. The actual mortality experience, investment returns, capital gains or losses, the amount of policyholder dividends, and federal and state taxes are only a few of the many variables that impact an insurer's profitability.

There are various numbers of studies available in the existing literature that compares the profitability of Nepalese life insurance companies. However, very few studies are found that examined the factors affecting the profitability of Nepalese life insurance companies. As a result, the study is expected to contribute to the existing literature by providing new information. Although the aforementioned empirical evidence has been observed in the context of other nations, Nepal has not yet produced any findings based on more recent data. Therefore, the following problems with Nepalese life insurance companies are covered by the study:

i. What is the situation of ROA, ROE, book value per share, firm size, liquidity, age of the firm, premium growth and solvency of selected Nepalese Life Insurance Companies?
ii. Is there any relationship of ROA, ROE, book value per share, firm size, liquidity, age of the firm, premium growth and solvency of Nepalese Life Insurance Companies?
iii. What is the impact of ROE, ROA, firm size, book value per share, liquidity, solvency, premium growth rate and age of the firm of Nepalese Life Insurance Companies?

1.3 Objectives of the study

The general objective of the study is to analyze the factors affecting the profitability of Nepalese insurance companies.

The specific objectives are as follows

i. To describe the situation of ROA, ROE, firm size book value per share, liquidity, premium growth rate, solvency, age of firm of selected Nepalese Life Insurance Companies.

ii. To analyze the relationship of ROA, ROE, firm size, book value per share, liquidity, premium growth rate, solvency, age of the firm of the Nepalese Life Insurance Companies.

iii. To examine the impact of ROA, ROE, firm size, book value per share, liquidity, premium growth, solvency, age of firm of the Nepalese life insurance companies.

1.4 Rationale of the study

The study will be focused on analyzing the factors affecting the profitability in Nepalese life insurance companies. This study will be valuable to life insurance company's managers as its focus is on the effect of different factors affecting the profitability of life insurance companies. It focuses on studying the relationship among different dependent variables i.e., return on assets, return on equity and independent variables i.e., firm size, leverage, liquidity, age of the firm, premium growth and solvency. It is useful to the policy makers and the government institutions that regulate the life insurance sector. This study can significantly benefit them by availing crucial information on the determinants of profitability of their firms enabling them to take precautionary measures and diversify their portfolios.

One important first step in illuminating what needs to be done in order to achieve profitability is to analyze and comprehend the impact of various factors on the profitability of life insurance in Nepal. This work might provide as a springboard for additional investigation into the field. Additionally, a wide range of stakeholders would profit from the conclusions drawn from the research, including the following:

Management: Management that looks for signs of success and failure in order to make the best judgments and take the required steps to raise the company's performance.

Government: The government is curious as to which businesses are profitable and which ones did not take the required steps to keep themselves out of bankruptcy.

Investors: Those looking to safeguard their capital and allocate it to the most advantageous venture are the ones who are interested in these studies.
Clients: Based on the companies' success metrics, clients are curious about life insurance companies' capacity to fulfill their commitments.

1.5 Limitations of the study

Every study has limitations due to diverse factors of institutions, study period, reliability of statistical data, tools, techniques and variances. The study also has potential limitations which have been outlined below:

- This study is based only in the secondary data analysis. The study is limited to the data available in the annual reports of the life insurance companies.
- No attempts are made to examine the reliability of the available secondary data. Thus, the consistency of finding and conclusions are dependent upon the secondary data and information.
- The study mainly focused on life insurance companies. However, the study has not considered micro finance institutions, development bank and commercial bank and other non-financial companies.

CHAPTER II
LITERATURE REVIEW

A few empirical and theoretical studies on the analysis of the variables influencing life insurance firms' profitability are covered in this part. There are three components to it. The theoretical review, which is the first portion, provides a thorough analysis of relevant works in the context of industrialized and developing nations. A review of earlier research is presented in the second section. The third segment concludes with a research gap.

2.1 Theoretical review

In Nepal, the first insurance firm was founded in 2004 B.S. "Nepal Malchalani Tatha Beema Company" was its name. "Nepal Insurance and Transport Company Limited" is the new name of the company. It was further renamed as Nepal Insurance Company Limited to run a non-life insurance business in Nepal later in the year 2048B.S. As a result, Nepal Insurance Company might be considered the country's original insurance provider.The Nepalese government founded "Rastriya Beema Sansthan" in 2024 BS with a Rs. 1 crore capital under the Company Act. Beginning in Falgun, 2029BS, Rastriya Beema Sansthan operated a life insurance company. It is thought that the Rastriya Beema Sansthan began offering life insurance in 2029BS, marking the beginning of the institutional development of insurance.

The Nepal Beema Pradhikaran (Nepal Insurance Authority), a division of the Ministry of Finance in Nepalese government, oversees insurance businesses in the country. As of March 2023, life, non-life (general), and reinsurance services are provided by 35 insurance companies (life-17, non-life-16, and reinsurance-2).

2.1.1 Concept of risk

F.B. Hawley introduced the risk theory of profit in 1893. Risk in business can come from a product's obsolescence, a sharp drop in price, the unavailability of a given

material, the launch of a superior alternative by a rival, and hazards associated with fire, war, etc. Hawley's believed that taking a chance is a necessary part of production and that taking a risk increases one's chances of making more money. Profit, in Hawley's opinion, is only the cost incurred by society when it takes on commercial risks. beyond the level of specified danger, in his view. Additionally, they seek a return greater than the costs associated with taking on risk, believing that risk is unimportant and only causes problems and distress.

As long as factor ownership included risk, Hawley thought that profits would follow. Hawley contends that in order to increase profits, an entrepreneur must take on risk. An entrepreneur would stop being an entrepreneur and make no money if there were no dangers. Profits from uninsured risks result, according to this notion. According to him, the profit from the sale of the entrepreneur's goods is a residue, which is why the Hawley theory is also known as the Residual theory (Hawley, 1983). The quantity of reward cannot be defined until the uncertain ends.

2.1.2 Concept of profitability

Stakeholders can learn from profitability if a business can survive and grow in the marketplace. It is the amount that a business makes more money than it spends. Profitability of a business is divided into two components: revenue and expenses. A business is only profitable when its revenue is greater than its costs.

In order to assist management, analysts, and stakeholders in forecasting and making plans on how the firm will generate the funds required to cover its spending and other business-related charges, this statistic is frequently presented as a financial ratio. Return on equity (ROE) and profit margins are two examples of these ratios. Earnings before interest, taxes, depreciation, and amortization (EBITDA) is another important ratio.

2.1.3 Concept of insurance

A contract that offers monetary protection or reimbursement against losses is generally referred to as an insurance policy. The company combines its clients' risks against losses on behalf of the insured. Among the most significant insurance categories in Nepal are health, life, and auto insurance.

Insurance policies guard against financial losses resulting from accidents, injuries, or property damage. The cost of taking legal responsibility for injury or damage done to a third party is also increased by insurance.

2.1.4 Concept of variables

A variable that is independent of the other variables is one that stands on its own. Psychologists can watch how it affects behavior, emotions, or other dependent variables in an experimental context since it is the source or factor that causes change. In the cause-and-effect relationships under study, it is the assumed cause.

In general, a variable is said to be dependent if it has an independent counterpart. The outcome or outcomes are represented by a dependent variable, which is subject to change in response to manipulations applied to the independent variable. It is the expected result in a cause-and-effect scenario.

2.2 Empirical Review

This study examines insurance companies in Serbia from 2015 to 2021 (Pjanić, Mitrašević, & Luković, 2023) and is based on findings from research on the impact of specific internal and external factors on the profitability of insurance companies in the 21st-century countries in Europe, America, Asia, and Africa that were published in a large number of scientific and professional papers. We selected this analysis in light of the unfavorable past experiences and expressed mistrust of the financial system, which had a substantial impact on policyholders' willingness to invest in life insurance products and on the growth of life insurance in Serbia. GoalThe purpose of the paper is to provide the business outcomes of the insurance firms operating in Serbia during the time under analysis and to identify the key business performance areas that an insurance company's management should focus on to guarantee successful business outcomes. Study design, technique, and strategy: We used a fixed effects model with the nine variables that we had chosen. Return on assets (ROA) is utilized as the dependent variable in the model, and the independent variables are market share, operational margin, expense ratio, investment ratio, growth rate of a firm's written premium, company size, log (financial leverage), and log (liquidity ratio). Conclusions/findings: The study's findings show that operating margin and liquidity ratio have a statistically significant and positive impact on return on assets (ROA), while expense ratio and financial leverage have a statistically significant but negative

impact on ROA. Limitations and upcoming studies: Our inability to examine the effect of specific life insurance policies on profitability represents a restriction in our examination of profitability. In light of the numerous and substantial social and economic developments that have occurred over the past two years, our future research will concentrate on how these developments affect the way insurance companies do business.

According to study by Alarussi & Gao (2023), there are positive and significant correlations between profitability (return on assets (ROA) and profits per share (EPS)) and business size, working capital, and intangible assets. Reducing the cost of capital and increasing the profitability of businesses require positive working capital. Because they are inexpensive, intangible assets are also a crucial component of increasing profitability. Furthermore, the results show a significant and negative correlation between liquidity and profitability, indicating that businesses experience low profit as a result of wasteful usage of liquid items. It's interesting to note that the metrics used to quantify leverage—debt ratio and leverage ratio—show conflicting results. The debt ratio, for example, has a significant positive correlation with ROA but not with EPS, whereas the leverage ratio has a strong negative correlation with ROA but not with EPS. These findings support the inverted U-shaped relationship between profitability and leverage, which is contingent on how well the benefits and costs of debt are balanced.

Malik (2011) looked into what factors affected Pakistani insurance companies' profitability. This study specifically looked at how firm-specific variables, such as the company's age, size, capital volume, leverage ratio, and loss ratio, affected ROA-based profitability. Return on assets (ROA), which is calculated by dividing before-tax profit by total assets (TA), is a crucial metric for assessing the profitability of insurance businesses. Profitability is a dependent variable, while the independent factors include the company's age, size, capital volume, leverage, and loss ratio. This study's sample consists of 35 listed life and non-life insurance companies that operate between 2005 and 2009. Secondary data gathered from State Bank of Pakistan financial publications, Insurance Year Book produced by Insurance Association of Pakistan (IAP), and insurance businesses' financial statements (Balance sheet and Profit/Loss account). The findings demonstrated the negative relationships between

profitability and age, leverage, loss ratio, and profitability. Size and capital volume have a good relationship with profitability. According to R-square, changes in the five independent variables account for just 89% of the variations in the dependent variable (ROA). The adjusted R-square, which has a value of 80%, is marginally less than the R-square. F-statistics validates the model since its value of 95.121 is significantly higher than its probability (F-statistics) value of 0.000. The results demonstrated that there is a strong positive correlation between the size of the business and profitability and no relationship at all between profitability and age of the business. The outcome also demonstrated a strong and positive relationship between profitability and capital volume. Leverage and loss ratios revealed a negative but noteworthy correlation with profitability.

Charumathi (2012) used return on asset as a dependent variable to calculate the profitability of life insurers doing business in India. This study used data from three financial years, 2008–09, 2009–10, and 2010–11, and it included all 23 Indian life insurers (one state and twenty-two private). Firm-specific attributes such size, underwriting risk, equity capital, premium growth, leverage, and liquidity are regressed against return on assets for this purpose. The IRDA database, as well as the public disclosures and annual reports of the relevant companies, provided the necessary data. A linear multiple regression model is used in this investigation. If we use the standardized coefficient and hold all other variables constant, the return on assets will increase by 65.3 for every 100increase in the net premium. In a similar vein, the return on assets will drop by 29.4 if the premium increases by 100. The study's findings indicate that size and liquidity have a favorable and considerable impact on life insurers' profitability, as indicated by the logarithm of net premium. The profitability of life insurers in India has been adversely and considerably impacted by the increase of premiums, leverage, and the augmentation of equity capital. There is no proof found in this study that underwriting risk and profitability are related.

Ullah et al. (2016) examined the factors that are important predictors of the profitability of non-life insurance companies in Bangladesh. Using an Ordinary Least Squares (OLS) regression model, the study also examines panel data from eight distinct insurance companies chosen between 2004 and 2014 using a convenience

sample method to determine whether there is a significant relationship between profitability (ROA) and certain independent variables: underwriting risk, expense ratio, solvency margin, premium growth, asset growth, and company size. This study discovered a strong negative correlation between size and underwriting risk and profitability (ROA). Expense Ratio, Solvency Margin, and Growth all significantly positively correlate with profitability (ROA). The R-Squared metric represents the extent to which independent variables (underwriting risk, expense ratio, solvency margin, premium growth, growth, and size) can account for fluctuations in the dependent variable (ROA). R-squared = 0.365480 indicates that the independent variables in the regression model account for 36.5480% of the variability in profitability (ROA).

In 2016, Daare conducted research on the elements that impact general insurance profitability in India. Ten general insurance companies—six of which were private and the other six were public—provided financial accounts of their non-life insurance from 2006 to 2016. Panel data are evaluated using the Fixed Effect Model (FEM) once the Random Effect and Pooled Regression models have been used to assess the model's suitability. The regression analysis shows that GDP and capital adequacy have a positive impact on profit, whereas inflation and liquidity have a negative impact on general insurance profitability in India. The return on equity and company size exhibited a negative correlation, with a significant correlation at the 1 percent significance level and a coefficient of -0.18. Similarly, among internal elements of profitability determinants, capital sufficiency and premium also showed a negative correlation with ROE, which was statistically significant at 1%, by -0.31 and -0.04, respectively. Among the internal components, liquidity is the only variable that has a positive correlation (0.16) at a meaningful level. To keep the industry's profitability position, managers might place more focus on current liability management and capital adequacy.

Kripa (2016) investigated the variables influencing Albanian insurance companies' profitability. The study evaluated the effects on insurance businesses' profitability of growth rate, liabilities, liquidity, fixed assets, capital volume, and company size. The approach is based on quantitative techniques, and the data are taken from reputable sources including NRC2, FSA1 reports, and yearly reports from insurance firms.

Seven businesses, comprising both non-life and life insurance companies, were included in the study between 2008 and 2013. The study's findings demonstrated that growth rate, liabilities, liquidity, and fixed assets are the primary factors influencing an insurer's profitability; growth rate has a positive correlation with profitability, whereas liabilities, liquidity, and fixed assets have a negative correlation. Though statistically negligible, company size and capital volume have a positive correlation with insurance businesses' profitability. Even the relationship between growth rate and liquidity (0.45) and liabilities (-0.47) is significantly correlated with the independent variables.

Rahman et al. (2017) investigated how economic and financial variables affected Pakistan's insurance industry's profitability. For the 2001–2015 study period, a panel of 41 conventional, Islamic (Takaful), and life and non-life insurance businesses has been chosen. The models with fixed effects and pooled OLS are the most suitable for this investigation, as demonstrated by the Hausman specification test and the Breusch and Pagan Lagrange Multiplier Test. The results of both models showed that the insurance industry's profitability is positively and statistically significantly influenced by size, tangibility, managerial effectiveness, and economic growth. On the other hand, while liquidity and growth potential have negligible effects in both models, financial leverage and inflation rate have a negative but large impact on profitability. In order to improve the performance of their companies, the top management in the insurance sector should therefore place a high premium on firm-specific characteristics (financial leverage, size, tangibility, managerial efficiency) as well as country-specific factors (economic growth and inflation rate).

Birhan (2017) evaluated the variables influencing Nile Insurance Dire Dawabranch's profitability.The properties of objects, individuals, groups, organizations, or surroundings were described, and the traits and perspectives of the respondents were mapped out, using a descriptive research design and a mixed approach. A standardized questionnaire and interviews were employed to investigate the factors that influence insurance firm profitability. Both descriptive and inferential statistical approaches were applied to the processed, analyzed, and interpreted data in order to provide the findings of the research at the chosen company. The descriptive statistics indicate that there is no statistically significant variation in the number of respondents;

however, the age and gender of the respondents have a significant impact on each determinant, and even profitability has a significant impact on perceived quality, the age of the company, the amount of premium, and the geographical proximity.The profitability of insurance firms is influenced by their age, which has a moderate effect due to their strong customer relationships and good governance experience. The findings show a strong association (r = 0.165) between the company's size and profitability and (r = 0.201) between technical provision risk and profitability.

Using panel data, Hussanie and Joo (2019) investigated the variables influencing the profitability of life insurance businesses in India. Twelve life insurance firms are included in the study, which runs from 2005 to 2015. Econometric analysis has been used in this work to ascertain how micro-economic factors affect Indian life insurers' profitability. The analysis's conclusions showed that just three of the nine independent factors could adequately account for the profitability of life insurers as determined by return on assets (ROA). The findings showed that factors including tangibility, premium growth, operating margin, loss ratio, investment performance, liquidity, and premium growth are important in determining how profitable Indian life insurers are, as determined by return on assets (ROA). Conversely, size, commission ratio, and leverage all have little bearing on the profitability as determined by ROA.

The effects of firm-specific characteristics (age, size, leverage ratio, premium growth rate, liquidity ratio, and tangibility of assets) on profitability, as measured by ROA, were investigated by Tegegn et al. (2020). Profitability is a dependent variable, and the independent variables include the company's age, size, premium growth rate, leverage liquidity ratio, and tangibility of assets. This study's sample consists of nine listed insurance companies during a twelve-year period (2005-2016). Analysis is done on secondary data that comes from the profit/loss account and balance sheet of insurance firms' financial publications, as well as financial publications of NBE.Panel data are evaluated using the Random Effect Model (FEM) once the Fixed Effect and Pooled Regression models have been used to assess the model's suitability. According to the regression results, the most significant elements influencing profitability are size, premium growth rate, liquidity, and age; as a result, there is a positive correlation between premium growth rate and size. By contrast, there is a negative but significant

relationship between age and liquidity and profitability. In conclusion, there is no substantial correlation between profitability and leverage or asset tangibility.

Bhattarai (2020) investigated the factors affecting Nepalese insurance businesses' profitability. The study yielded 50 observations and was based on panel data from 10 insurance firms spanning five years, from 2012–2013 to 2017–2018. Return on Equity (ROE) has been used in the study as a dependent variable and as a measure of profitability. Employee Expense Ratio (ER), Financial Leverage (FL), and Size of Company (LnTA) factors are also included in the study as independent variables. SPSS 25 software has been used to process the data. The expenditures ratio was found to have a positive relationship with other independent variables, according to the data. The study's findings indicated that the size and financial leverage of Nepalese insurance businesses are important factors in determining their success.Furthermore, the correlation matrix shows that the correlation between all the variables is extremely low—less than 0.30. The study variables do not exhibit any indication of multicollinearity.

The review of empirical studies in this study has been shown in Table 2.1.

Table 1

Review of empirical studies

Year	Researchers	Title	Objective	Variables	Methodology	Findings
2011	Hifza Malik	Determinants of insurance companies profitability: An analysis of insurance sector Of Pakistan	To examine the determinants of profitability in insurance companies of Pakistan.	Dependent variable: Return on assets Independent variables: Age of company, size of company, volume of capital, leverage and loss ratio	A multiple regression analysis has been done to find out the impact.	There is no relationship between profitability and age of the company and there is significantly positive association between size of the company and profitability. The result also shows that the volume of capital is significantly and positively related to profitability. Loss ratio and leverage ratio showed negative but significant relationship with profitability.
2012	B. Charumathi	On the Determinants of Profitability of Indian	To determine the profitability of life insurers operating in India	Dependent variables: Return on assets and Independent variables:	The data required were drawn from IRDA data base and the public disclosures and annual reports of	The findings indicate that profitability of life insurers is positively and significantly influenced by the size (as explained by logarithm of net

		Life Insurers – An Empirical Study		leverage, size, premium growth, liquidity, underwriting risk and equity capital	the respective companies. This study uses linear multiple regression model.	premium) and liquidity. The leverage, premium growth and logarithm of equity capital have negatively and significantly influenced the profitability of Indian life insurers.
2016	G M Wali Ullah, Mohammed Nasrath Faisal, SadaqaTuzZuhra	Factors determining profitability of the insurance industry of Bangladesh	To analyze the determinants that serve as significant predictors of non-life insurance firms' profitability in Bangladesh.	Dependent variable: Return on assets and Independent variables: Underwriting risk, expense ratio, solvency margin, premium growth, asset growth, and company size	The study used Ordinary least squares (OLS) regression model.Sample size was only from eight listed insurance companies from Dhaka Stock Exchange (DSE)—selected through random sampling.	The study found a significant inverse relationship between underwriting risk, and size, with profitability (ROA). There is also a significant positive relationship between expense ratio, solvency margin, and growth, with the profitability (ROA).
2016	Wondwossen Jerene Daare	Factors affecting general insurance companies profitability: empirical study in India	To investigate factors that determining general insurance profitability in India	Dependent variables: Return on equity and Independent variables: t size, capital adequacy, premium growth rate and inflation	The study adopted Panel data analyzed using Fixed Effect Model (FEM) after testing the appropriateness of the model with Random Effect and Pooled regression model.	The findings from the study confirmed that capital adequacy and GDP are positively affecting profit and liquidity and inflation negatively affecting the profitability of general insurances in India.
2016	Dorina Kripa	Factors Affecting the Profitability of Insurance Companies in Albania	To examine the impact of growth rate, liabilities, liquidity, fixed assets, volume of capital and company size on the profitability of insurance companies	Dependent variable: Return on assets and Independent variables: company age, company size, liabilities ratio, the volume of capital, fixed assets and liquidity ratio deposit ratio and three-month interbank rate	The methodology used is based on quantitative methods. The study has taken under study 7 companies, including non-life and life insurance companies, from 2008- 2013. The study is based on descriptive and correlation analysis	The study showed that growth rate is positively associated with profitability, while liabilities, liquidity and fixed assets are negatively correlated. Company size and the volume of capital are positively correlated with the profitability of insurance companies', but their impact is statistically insignificant.
2017	Shams Ur	Financial	To explore the	Dependent	Data are collected	The study found that size,

	Rahman, Shahid Jan Kakakhel and Liaqat Ali	and Economic Factors that influence Profitability of Insurance Sector in Pakistan	effects of financial and economic factors on Profitability in the insurance sector of Pakistan	variables: Return on assets and Independent variables: size, tangibility, financial leverage, managerial efficiency and economic growth	from secondary sources. This study used fixed effects and pooled OLS models	tangibility, managerial efficiency and economic growth) have positive and statistically significantly influence on Profitability of the insurance sector. However, financial leverage and inflation rate have negative but significant effect on Profitability while liquidity and growth opportunity have insignificant effect.
2017	MingizemBirhan	Determinants of insurance company profitability in Ethiopia (case study on Nile Insurance, Dire Dawa Branch).	To assess factors affecting profitability of Nile Insurance Dire Dawa branch	Dependent variable: Return on asset and Independent variables: age of the company, liquidity, and leverage and capital volume	The study used both descriptive and inferential statistical techniques. Both interview and structured questionnaire were used to study the determinants of insurance company profitability.	The result showed size, leverage, tangibility of asset, loss ratio/ risk, firm growth and managerial efficiency are identified as significant determinants of profitability.
2019	IremHussanie and Bashir Ahmad Joo,	Determinants of profitability of life insurers in India-panel evidence	To investigate the factors that affect the profitability of life insurance companiesin India.	Dependent variables: Return on assets, and Independent variables: liquidity, tangibility, leverage, size, investment performance, premium growth, operating margin, loss Ratio, and commission ratio	Data analysis is based on descriptive analysis and regression. Regression model of ROA is tested for the presence of multicollinearity.A Hausman test is therefore employed to select either fixed or random effects for the analysis of panel regression	The results revealed that liquidity, loss ratio, investment performance, operating margin, premium growth, and tangibility are significant in determining the profitability, as measured by ROA, of Indian life insurers.
2020	Mengistu Tegegn, Leta Sera andTesfayeMelakuMerra	Factors affecting profitability of insurance companies in	To assess the effects of firm specific factors (age of company, size of company, leverage ratio, premium growth	Dependent variables: Return on assets, and Independent variables: age of company, size of company,	Secondary data obtained from the financial statements (Balance sheet and Profit/Loss account) of insurance companies, financial	The result showed that size,premium growth rate and liquidity and age are identified as most important determinant factors of profitability hence premium growth rate and size, are positively related. In contrast

		Ethiopia: panel evidence	rate liquidity ratio and tangibility of assets) on profitability proxied by ROA	premium growth rate,leverage liquidity ratio and tangibility of assets	publications of NBE are analyzed.Paneldata analyzed using Random Effect Model (FEM) after testing the appropriateness of the model with Fixed Effect and Pooled regression model..	liquidity and age negatively but significantly related with profitability. Lastly, leverage and tangibility of asset are not significantly related with profitability.
2020	Bishnu Prasad Bhattarai	Factors influencing profitability of insurance companies in Nepal	To assess the factors influencing profitability of insurance companies in Nepal	The study has been taken return on Equity (ROE) as profitability measures and as dependent variables. The study also has been employees Expenses Ratio(ER), firma age (FA), Financial Leverage (FL) and Size of Company (LnTA) factors as independent variables	The data has been processing with the help of SPSS 25 Software. The study base on 10 insurance companies panel data for 2012/13 to 2017/18 over five year period and leading to 50 observations. The study used descriptive, correlation and regression analysis.	The results of study concluded that the financial leverage and size have major determinants of the profitability in Nepalese insurance companies.

2.3 Research gap

Numerous studies have been carried out over varying time periods by various scholars to determine the elements influencing the profitability of life insurance firms in various nations. In addition to the variables employed in this study, there exist several other variables that also impact profitability. Every study that attempted to examine the factors influencing life insurance businesses' profitability based on the empirical evaluation was skewed in favor of different approaches and strategies. The goal of the study is to examine how the dependent variables—return on equity and return on assets—relate to the independent variables—firm size, book value per share, liquidity, age of the company, premium growth, and solvency.

Despite the large number of studies on the effects of various factors on life insurance businesses' profitability, the literature's results are inconsistent. As a result, it is impossible to generalize the empirical conclusion from one country to another. Nonetheless, there haven't been many attempts to look at the problems relating to how various aspects relate to the profitability of the company in Nepal.

CHAPTER III
RESEARCH METHODOLOGY

A problem can be solved systematically using research technique. It is a science that studies the best ways to do research. The goal of this study is to gain an understanding of the factors that influence profitability within a certain set of insurance businesses. The following study methodology—which comprises the research design, data collecting, processing, and analysis procedures—has been employed for this goal. It also makes use of a variety of profitability indicators.

3.1 Research design

Research design will be providing the framework of the study, guidelines for the collection and analysis of data. The research work will be study to analyze the internal factors of life insurance companies and its effects on profitability. According to the objective of the study, this study will be based on descriptive and comparative research design. The study will be used for secondary data to fulfill the objectives.

3.2 Population and sample

The insurance businesses in Nepal serve as the basis for this study. Five of the 17 life insurance companies operating in Nepal as of March 2023 have been chosen for the study. Using a sample of five life insurance firms in Nepal from 2011–12 to 2020–21, this study will evaluate the factors that influence profitability in the context of the chosen companies. The annual reports of many sample life insurance firms serve as the primary data sources. Data on the following topics are gathered: the size of the company, book value per share, liquidity, age of the company, increase in premiums, EPS, return on equity, and return on assets of certain insurance firms. Information is gathered between 2011–12 and 2020–21.

Table 2 shows the list of sample insurance companies selected for the study.

Table 2

Number of insurance companies selected for the study

S. N.	Name of the insurance companies
1	Asian Life Insurance Company Limited
2	Gurans Life Insurance Company Limited
3	National Life Insurance Company Limited
4	Prime Life Insurance Company Limited
5	Nepal Life Insurance Company Limited

3.3 Sources of data

Based on secondary data collected for five life insurance firms in Nepal during a ten-year period (2011/12–2020/21), the study was conducted. This study uses the following independent variables: firm size, book value per share, liquidity, age of the firm, premium growth, and solvency. The dependent variables are return on equity and return on assets. The chosen life insurance firms' annual reports are the source of the secondary data and information.

3.4 Data processing procedure

The goal of secondary data analysis is to examine how the variables relate to one another. This section is broken down into several subsections, the first of which covers the sample observations' descriptive statistics, such as the mean, standard deviation, minimum, and maximum values. In the second portion, correlation analyses are done. In the context of Asian Life Insurance Company Limited, Gurans Life Insurance Company Limited, National Life Insurance Company Limited, Prime Life Insurance Limited, and Nepal Life Insurance Company Limited, all observed relationships and findings are interpreted to derive meaningful conclusions regarding the relationship of different factors with the profitability of insurance firms.

3.5 Research framework

A research framework, which can be applied in various settings and variations, is an analytical instrument that explains the methodical explanation of the relationship

between the dependent and independent variables in order to shed light on the variables influencing the profitability of life insurance businesses in Nepal.

The conceptual framework for the investigation is presented in this section, along with information on the variables that were employed and their relationships. Return on equity and return on assets are the dependent variables in this study. company size, book value per share, liquidity, company age, premium growth, and solvency are the independent factors. As a result, the conceptual model that follows is structured to condense the primary goal and extent of this investigation in terms of variables included.

The conceptual framework that describes the dependent and independent variables is shown in Figure 3.1.

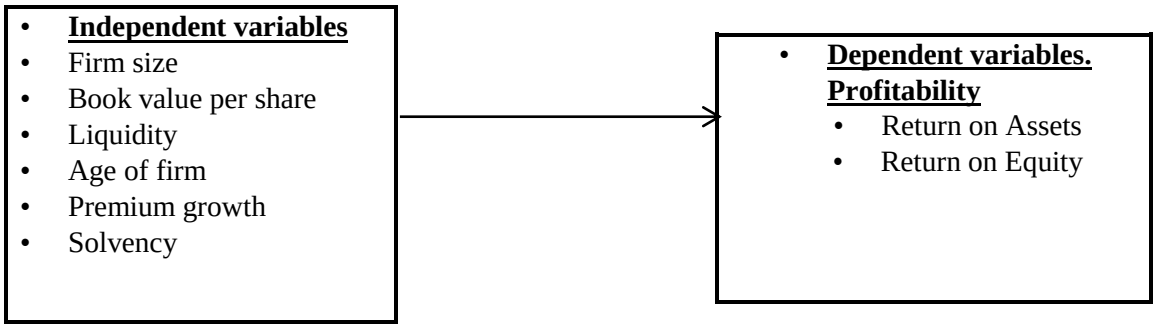

Figure 1 *Conceptual Framework*

Source: *Alomari, M. W. &Azzam, I. A.in 2017.*

Independent variables

A variable that is independent of the other variables is one that stands on its own. Psychologists can watch how it affects behavior, emotions, or other dependent variables in an experimental context since it is the source or factor that causes change. In the cause-and-effect relationships under study, it is the assumed cause. The main independent variables that were employed and included in this study are as follows:

Firm size

The total assets of the company are indicated by its size. It has always been a crucial element in figuring out a company's profitability, which raises the firms' performance. A company will thus always strive to grow. The entire assets of the insurance businesses are used in this analysis as a proxy for firm size. Malik (2011) shown that the age of the business and profitability are unrelated. Nonetheless, there is a strong

correlation between profitability and a company's size. Firm profitability and size should be positively correlated.

Age of firm

The number of years since its founding is used to calculate the company's age. Factors influencing insurance businesses' profitability from 2005 to 2010 were evaluated by Pervanet al. (2012). Firm age and profitability were found to be positively correlated by the study. Firm age and profitability are predicted to have a favorable correlation.

Premium growth

The primary source of revenue generated by insurance operations for life insurance firms is premium growth. The company's growth and an increase in its market share will be guaranteed by the premium growth rate increase. However, uncontrolled or out-of-control premium volume growth creates or exacerbates other dangers that could jeopardize the company's survival. The change in gross written premium is used in this study to quantify premium growth. Kripa (2016) came to the conclusion that the premium growth rate and the firm's profitability are positively correlated. The relationship between premium increase and company profitability is predicted to be positive.

Solvency

The amount that an insurance company's capital exceeds its anticipated obligations is known as its solvency margin, and it serves as a gauge of the soundness of its finances. Divide a company's net income after taxes (after depreciation is added back) by the total amount of its liabilities (both short- and long-term). This yields the ratio. A high solvency ratio indicates a company's long-term financial stability. According to G M Wali Ullah and Mohammed Nasrath Faisal Sadaqa Tuz Zuhra (2016), there is a noteworthy positive correlation between solvency margin and profitability (ROA).

Liquidity

The ratio of current assets to current liabilities is used in this study to quantify liquidity. By employing the listed businesses of the London Stock Exchange for four years, Lyroudi and McCarty (1993) found a negative correlation between the profitability ratios, such as the net profit ratio, return on equity, and return on assets, and the cash conversion cycle, current ratio, and quick ratio. Liquidity and company profitability should be correlated negatively.

Book value per share

The ratio of book value to the total number of shares is known as book value per share. Stock investors mostly use it to assess a company's stock price before making an investment. A stock that is undervalued will have a higher BPS than its market price at the moment. A stock that is overpriced will have a lower BPS than its present market value. In this study, the ratio of a company's common equity to the total number of outstanding shares is used to calculate book value per share. According to Tandon and Malhotra's (2013) research, there is a strong positive correlation between a company's stock price and its book value per share. The expected sign between book value per share and firm profitability is positive.

Dependent variables

In general, a variable is said to be dependent if it has an independent counterpart. The outcome or outcomes are represented by a dependent variable, which is subject to change in response to manipulations applied to the independent variable. It is the expected result in a cause-and-effect scenario. In this study, the dependent variables that were employed are:

Return on assets

Divide net income by total assets to get the ratio known as return on assets (ROA). The majority of studies that quantify a company's profitability use return on assets (ROA). The return on assets (ROA) is a measure of how well a company's management leverages its real investments to produce profits. It is calculated as the profit made per dollar of assets. The ability of a corporate organization to sustain a profit year after year is referred to as profitability (Gulet al., 2011). The percentage return on assets is calculated by dividing net income by total assets.

Return on equity

By comparing net income to total equity, the profitability ratio known as return on equity calculates the net income generated by all equity over a certain time period. It assesses how effectively management is turning a profit on the capital contributed by shareholders. Based on the equity that investors have contributed to the company, return on equity (ROE) is one of the most significant metrics for assessing the productivity and profitability of a company's management. ROE quantifies a business's profitability, indicating how much money it makes off of the capital that investors have contributed (Moscu, 2014).A company that has a higher return on equity (ROE) is generally better able to provide a higher return to its owners. The

better a company is, the higher its return on equity (ROE) relative to its rivals. Return on assets as measured by the ratio of net income to total assets, in percentage.

Regression models:

$ROA_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 AGE_{it} + \beta_3 PG_{it} + \beta_4 BVPS_{it} + \beta_5 LQ_{it} + \beta_6 SOL_{it} + e_{it}$

$ROE_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 AGE_{it} + \beta_3 PG_{it} + \beta_4 BVPS_{it} + \beta_5 LQ_{it} + \beta_6 SOL_{it} + e_{it}$

Where,

ROA = Return on assets

ROE = Return on equity

FS = Firm size

AGE = Age of the firm

PG = Premium growth

BVPS = Book value per share

LQ = Liquidity

SOL = Solvency

β_0= Constant term

$\beta_1 - \beta_3$= Coefficients

e= Error term

Based on different literatures, the study formulate following hypothesis are

Hypothesis 1 (H1): Firm sizehas a positive relationship with the firm profitability.

Hypothesis 2 (H2): Age of the firmhas a positive relationship with the firm profitability.

Hypothesis 3 (H3): Premium growthhas a positive relationship with the firm profitability.

Hypothesis 4 (H4): Book value per sharehas a positive relationship with the firm profitability.

Hypothesis 5 (H5): Liquidityhas a negative relationship with the firm profitability.

Hypothesis 6 (H6): Solvencyhas a positive relationship with the firm profitability.

3.6 Data analysis tools and techniques

The study makes use of correlation and descriptive analysis. The mean, standard deviation, minimum and maximum values of the variables that are used to explain the characteristics of the sample firms using Microsoft Excel are contained in the descriptive statistics. Using the statistical program for social science (SPSS),

correlation analysis is performed to determine the strength and direction of the relationship between dependent and independent variables. The study has used average mean. Average mean is measured as the sum of all the numbers divided by the total number of values. Likewise, the study also takes standard deviation into account. A set of values' variance or dispersion can be measured using the standard deviation. In contrast, a high standard deviation suggests that the values are dispersed throughout a larger range, while a low standard deviation suggests that the values often tend to be near the set's mean, also known as the anticipated value. Microsoft Excel is used to determine the appropriate mean values and standard deviations.

Correlation coefficients of different variables for Nepalese life insurance companies are analyzed and interpreted. It is reasonable to expect some kind of statistically significant relationship among these pairs of variables. It explains the direction and magnitude relationship among different pairs of these specific variables. The degree and direction of a linear relationship between dependent and independent variables are measured by correlation. Correlation analysis has been utilized in the study to demonstrate the relationship between the independent variables, firm size, book value per share, liquidity, age of the company, premium growth, and solvency, and the dependent variables, return on assets (ROA) and return on equity (ROE).

One statistical method for determining the associations between variables is regression analysis. Regression findings were estimated using the following variables: return on equity and return on assets as dependent variables, and firm size, book value per share, liquidity, age of the company, premium growth, and solvency as independent variables. To determine the proportion of change that can be attributed to the independent variables, the adjusted R square is assessed. The standard error of estimate and t values are produced to assess the significance level.

CHAPTER IV
RESULTS AND DISCUSSION

4.1 Data presentation and analysis

This chapter contains the succinct summaries of the various types of data and ratios that have been gathered and assembled for the study's benefit from the chosen five insurance firms. After that, information is tallied, examined, evaluated, and contrasted between the insurance providers that are the subject of the investigation. This chapter presents the study's organized and methodical findings in the form of secondary data interpretations, analysis, and presentation along with a number of topics related to the factors influencing the profitability of ALICL, GLICL, NLICL, PLIL, and NLIL from 2011–12 to 2020–21.

4.2 Descriptive statistics

The study employed descriptive statistics, specifically the minimum, maximum, mean, and standard deviation corresponding to the variables under investigation. Consequently, the use of descriptive statistics makes it possible to present the data in a more relevant form, making it easier to analyze the data. Table 4.9 presents the descriptive statistics of selected dependent and independent variables during the period 2011/12 to 2020/21.

Table 3

Descriptive statistics

Variables	Minimum	Maximum	Mean	Std. Deviation
ROA	0.02	10.00	4.19	3.51
ROE	0.10	18.62	9.54	4.93
Firm size	197244554.00	63018260166.00	6103282377.84	10273423371.12

Premium growth	4.20	142.00	31.20	22.18
Age	4.00	33.00	13.90	8.24
Solvency	1.40	10.76	2.88	1.68
Liquidity	1.08	106.66	23.38	32.68
BVPS	109.00	314.13	160.83	39.99

Source: SPSS

Table 3 shows the descriptive statistics of dependent and independent variables for the Nepalese life insurance companies. Return on assets obviously varies from a minimum of 0.02 percent to a maximum of 10 percent, with an average of 4.19 percent. Between a minimum of 0.10 percent to a maximum of 18.62 percent, or 9.54 percent, is the average return on equity of the Nepalese life insurance businesses throughout the researched period. With an average business size of Rs. 6103282377.84, the range of values is minimum at Rs. 197244554 and maximum at Rs. 63018260166. On the other hand, the premium growth average is 31.20 percent, with variations falling between 4.20 and 142.00 percent. In a similar vein, the age ranges from 4 years old to 33 years old, with an average of 13 years. The solvency ranges from 1.40 percent at the minimum to 10.76 percent at the maximum, resulting in an average of 2.88 percent. Similarly, the average liquidity ratio is 23.37 percent, with a minimum of 1.08 percent and a maximum of 106.66 percent. Similarly, BVPS has an average of 160.83 and varies from 109 to 314.13, the minimum and maximum values.

4.3 Correlation analysis

The relationship between company size, book value per share, liquidity, firm age, premium growth, and tangibility with return on equity and return on assets is examined using Pearson's correlation. In order to determine if two variables can be considered statistically dependent on one another, Pearson's coefficient is frequently employed as a test statistic in statistical hypothesis tests. The degree and direction of a linear relationship between dependent and independent variables are measured by correlation.

Table 4

Pearson's correlation coefficients matrix

Variables		ROA	ROE	Firm size	Premium growth	Age	Solvency	LIQ	BVPS
ROA	Pearson Correlation	1							
	Sig. (2-tailed)								
ROE	Pearson Correlation	-0.212	1						
	Sig. (2-tailed)	0.139							
Firm size	Pearson Correlation	-.290*	.310*	1					
	Sig. (2-tailed)	0.041	0.029						
Premium growth	Pearson Correlation	-0.122	-0.147	-0.189	1				
	Sig. (2-tailed)	0.398	0.308	0.189					
Age	Pearson Correlation	-.474**	.309*	0.237	-0.201	1			
	Sig. (2-tailed)	0.001	0.029	0.097	0.162				
Solvency	Pearson Correlation	-0.136	0.189	0.15	-0.054	.480**	1		
	Sig. (2-tailed)	0.347	0.189	0.299	0.709	0			
Liquidity	Pearson Correlation	-.350*	0.228	-0.048	-0.197	.888**	.410**	1	
	Sig. (2-tailed)	0.013	0.111	0.74	0.171	0	0.003		
BVPS	Pearson Correlation	-0.151	0.221	0.057	-0.232	-0.11	0.022	-0.15	1
	Sig. (2-tailed)	0.296	0.123	0.693	0.105	0.437	0.882	0.296	

Source SPSS

Note: The asterisk signs (**) and (*) indicate that the results are significant at 1percent and 5 percent levels respectively.

The result shows that premium growth has a negative relationship with return on assets. It indicates that increase in premium growth leads to decrease in return on

assets. In a similar vein, there is a negative correlation between firm age and return on assets, meaning that as a firm gets older, its value declines. Additionally, the conclusion demonstrates a negative association between solvency and return on assets, indicating that a higher degree of tangibility results in a lower return on assets. The outcome does, however, also show that the liquidity ratio and return on assets are negatively correlated. It suggests that a rise in the liquidity ratio causes the return on assets to fall. Similarly, there is a negative correlation between book value per share and return on assets, meaning that a rise in book value per share results in a fall in return on assets. Furthermore, firm size also has negative relationship with return on assets which indicates that increase in assets size leads to decrease in return on assets.

Additionally, the outcome demonstrates that premium increase and return on equity are negatively correlated. It suggests that a rise in premium growth is associated with a fall in return on equity. Similarly, there is a positive correlation between firm age and return on equity, meaning that as a firm gets older, so does the return on equity. Additionally, the study demonstrates a positive correlation between solvency and return on equity, suggesting that increased tangibility raises return on equity. The outcome also shows that there is a positive correlation between return on equity and the liquidity ratio. It suggests that a higher liquidity ratio results in a higher return on equity. Similarly, there is a positive correlation between book value per share and return on equity, meaning that an increase in book value per share corresponds to an increase in return on equity. Additionally, there is a positive correlation between business size and return on equity, meaning that a larger asset base translates into a higher return on equity.

4.4 Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been computed and results are presented in Table 3 and Table 4. More specifically, Table 3 shows the regression results of firm size, book value per share, liquidity, age of firm, premium growth and solvency on return on assets of Nepalese life insurance companies.

Table 5

Estimated regression results of firm size, book value per share, liquidity, age of firm, premium growth and solvency on return on assets

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	12.927	2.323		5.564	0.000
	Firm size	-7.85E-11	0.000	-0.230	-1.523	0.135
	Premium growth	-0.055	0.020	-0.346	-2.724	0.009
	Age	-0.245	0.140	-0.576	-1.758	0.086
	Solvency	0.369	0.280	0.177	1.320	0.194
	Liquidity	-0.004	0.034	-0.035	-0.110	0.913
	BVPS	-0.026	0.011	-0.292	-2.363	0.023
	R square	0.414				
	Standard error of estimate	2.867				

Source: SPSS

As can be seen in Table 5, the beta coefficient for company size decreases as return on assets increases. The data suggests that there is a negative correlation between firm size and return on assets. In a similar vein, premium growth has a negative beta correlation with return on assets. It suggests that the rising of premiums is negatively affecting return on assets. Similarly, solvency's beta coefficient increases with return on assets. The data suggests that tangibility positively affects return on assets. Likewise, the liquidity ratio's beta coefficient decreases as return on assets increases. It suggests that the relationship between the liquidity ratio and return on assets is unfavorable. In addition, the beta coefficient for book value per share decreases as return on assets increases. The return on assets is shown to be negatively impacted by book value per share. The study finds that when return on assets is taken into account, the beta coefficient for company age is negative. The data suggests that there is a negative correlation between business age and return on assets. According to the study, variations in the chosen independent variables account for 2.867 percent of changes in the return on assets, with a R square of 0.414.

Table 6 shows the regression results of firm size, book value per share, liquidity, age of firm, premium growth and tangibility on return on equity of Nepalese insurance companies.

Table 6

Estimated regression results of firm size, book value per share, liquidity, age of firm, premium growth and solvency on return on equity

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.991	3.772		0.528	0.600
	Firm size	1.359E-10	0.000	0.283	1.625	0.112
	Premium growth	0.005	0.033	0.022	0.153	0.879
	Age	0.058	0.227	0.097	0.255	0.800
	Solvency	0.050	0.454	0.017	0.111	0.912
	Liquidity	0.029	0.055	0.191	0.522	0.604
	BVPS	0.031	0.018	0.250	1.749	0.087
	R square	0.217				
	Standard error of estimate	4.651				

Source: SPSS

The beta coefficient for business size is positive in relation to return on equity, as Table 6 illustrates. It suggests that return on equity is positively impacted by the size of the company. In a similar vein, premium growth's beta coefficient increases with return on equity. It suggests that return on equity is positively impacted by the premium growth. Similarly, when it comes to return on equity, the beta coefficient for solvency is positive. It suggests that return on equity is positively impacted by tangibility. In a similar vein, the liquidity ratio's beta coefficient increases with return on equity. It suggests that return on equity is positively impacted by the liquidity ratio. Additionally, book value per share has a positive beta coefficient in relation to return on equity. It suggests that return on equity is positively impacted by book value per share. The study finds that when return on equity is taken into account, the beta coefficient for company age is positive. It suggests that return on equity is positively impacted by the firm's age. The analysis also reveals that a R square of 0.217 suggests that variations in the chosen independent variables account for 4.651 percent of variations in the return on equity.

4.5 Discussion

As per the first objective's result, the average firm size falls between the minimum and maximum values of Rs 197244554.00 and Rs 63018260166.00, resulting in an average of Rs 6103282377.84. The average premium growth, however, is only 31.20 percent, with variations ranging from 4.20 percent to 142.00 percent. In a similar vein, the age ranges from 4 years old to 33 years old, with an average of 13 years. The solvency varies from 1.40 percent at the minimum to 10.76 percent at the maximum, resulting in an average of 2.88 percent. Similarly, the average liquidity ratio is 23.38 percent, with a low of 1.08 percent and a maximum of 106.66 percent.

The Pearson's correlation coefficients matrix of Nepalese life insurance companies, as a result of the second aim, indicates that premium growth and return on assets are negatively correlated. In a similar vein, return on assets is negatively correlated with business age. The outcome further demonstrates the inverse link between solvency and return on assets. The outcome does, however, also show that the liquidity ratio and return on assets are negatively correlated. Similarly, there is a negative correlation between return on assets and book value per share. Moreover, there is a negative correlation between firm size and return on assets. Additionally, the outcome demonstrates that premium increase and return on equity are negatively correlated. In a similar vein, return on equity positively correlates with business age. Additionally, the outcome demonstrates that solvency and return on equity are positively correlated. The outcome also shows that there is a positive correlation between return on equity and the liquidity ratio. Similarly, there is a positive correlation between return on equity and book value per share. Additionally, there is a positive correlation between firm size and return on equity.

Finally working on the third objective, after the entire analysis of data, it can be concluded that the firm size has a negative relationship with the firm profitability for ROA which is not match the study of HifzaMalik(2011), Charumathi (2012), WaliUllah,MohammedNasrath Faisal SadaQaTuzZuhra (2016) and Dorina Kripa(2016) and positive relationship with ROEwhich is not match the study of HifzaMalik(2011),B.Charumathi(2012), GM WaliUllah,MohammedNasrath Faisal SadaQaTuzZuhra(2016) and Dorina Kripa(2016)

Similarly, age of the firm has a positive relationship with the firm profitability has been rejected from the study of HifzaMalik(2011),.Mengistu Tegegn,Leta Sera and TesfayeMelakuMerra(2020) when profitability is measured by ROA.

Likewise, the study foundpremium growth has a negative relationship with the firm profitability which is not match the study of Charumathi(2012), IremHussanie and Bashir Ahmad Joo(2019).

In addition, book value per share has a positive relationship with the firm profitability when the profitability is measured by ROE.

Further, liquidity has a negative relationship with the firm profitability has been accepted for the findings of DorinaKripa (2016), Wondwossen Jerene Daare (2016) and has been rejected the findings of B.Charumathi(2012) when the profitability is measured by ROA.

Moreover, solvency has a positive relationship with the firm profitability has been accepted when the profitability is measured by ROE which is match the findings of Shams Ur Rahman,Shahid Jan Kakakhel and Liaqat Ali(2017).

CHAPTER V
SUMMARY AND CONCLUSION

The factors influencing the life insurance companies' profitability in Nepal are the subject of this study. A summary conclusion and a recommendation are presented in this chapter. The data gathered from the analysis is the basis for all of the summary and conclusion. There have been recommendations made that the management of insurance firms and other stakeholders would find advantageous.

5.1 Summary

A country's socioeconomic development and progress are greatly influenced by its financial institutions. Particularly, insurance businesses enable a country's countless economic transactions by means of effective and efficient processes for financial intermediation, indemnity, risk transfer, and savings mobilization. It is indisputable that financial institutions like banks, insurance, credit and savings unions, cooperatives, and the like are crucial to a modern economy. These organizations are very important in supporting and lubricating national economies. As to Saunders and Cornett's (2004) findings, financial institutions play a crucial role in facilitating the transfer of funds from individuals who have excess funds (suppliers of funds) to others who need cash (users of funds). Financial institutions have an impact on daily life as well as massive financial flows that have an impact on corporate earnings, the output of goods and services, and even the economic health of nations.

The problem statement of the sampled life insurance businesses in Nepal was presented by the researcher in this study. Analyzing the variables influencing Nepalese life insurance companies' profitability is the study's main goal. The study aims to examine the correlation between the profitability of Nepalese life insurance firms and several factors such as firm size, solvency, age of the company, book value per share, liquidity, and premium growth. In a similar vein, the study makes an effort to characterize the circumstances surrounding the solvency, increase in premiums, firm age, book value per share, liquidity, return on assets, and return on equity of a subset of Nepali life insurance businesses. The study also looks at how Nepalese life insurance businesses' return on equity and return on assets are affected by factors such

firm size, liquidity, age of the company, book value per share, premium growth, and solvency.

The researcher made an effort to include detailed literature on the study's topic. Thus, the researcher reads a wide range of materials, such as thesis, books, journals, and articles.

Descriptive and causal comparative research designs will be used in this study to address the variables influencing the profitability of life insurance businesses in Nepal. In the context of Gurans Life Insurance Company Limited, Asian Life Insurance Company Limited, National Life Insurance Company Limited, Prime Life Insurance Limited, and Nepal Life Insurance Company Limited, the descriptive research design has been used to acquire sufficient information and establish facts regarding the fundamental problems related to the factors affecting the profitability. A causal comparative research design was also employed in the study in an effort to determine a relationship between an independent and dependent variable. In the same way, this design has been used to determine and comprehend the patterns, strengths, and orientations of the observed relationships between the study's variables of interest.

To be more precise, the study examines how firm size, book value per share, liquidity, age of the company, premium growth, solvency, and return on equity relate to each other and to Gurans Life Insurance Company Limited, Asian Life Insurance Company Limited, National Life Insurance Company Limited, Prime Life Insurance Limited, and Nepal Life Insurance Company Limited between 2011–12 and 2020–21. The annual reports of several representative life insurance firms are the source of the secondary data and information. The analysis techniques employed in the study are correlational and descriptive.

Based on the data, the average firm size is Rs. 6103282377.84, with a minimum of Rs. 197244554.00 and a maximum of Rs. 63018260166.00. But premium growth ranges from 4.20 percent at least to 142.00 percent at maximum, resulting in an average of 31.20 percent. The age range also varies, with an average of 13 years and a minimum of 4 years to a maximum of 33 years. The average solvency is 2.88 percent, with a range of minimum 1.40 percent to maximum 10.76 percent. In a similar vein, the liquidity ratio has an average of 23.38 percent and a range of 1.08 percent to

106.66 percent. The Pearson's correlation coefficient matrix pertaining to life insurance businesses in Nepal indicates a negative link between premium growth and return on assets. In a similar vein, return on assets is negatively correlated with business age. The outcome further demonstrates the inverse link between solvency and return on assets. The outcome does, however, also show that the liquidity ratio and return on assets are negatively correlated. Similarly, there is a negative correlation between return on assets and book value per share. Moreover, there is a negative correlation between firm size and return on assets. Additionally, the outcome demonstrates that premium increase and return on equity are negatively correlated. In a similar vein, return on equity positively correlates with business age. Additionally, the outcome demonstrates that solvency and return on equity are positively correlated. The outcome also shows that there is a positive correlation between return on equity and the liquidity ratio. Similarly, there is a positive correlation between return on equity and book value per share. Additionally, there is a positive correlation between firm size and return on equity.

5.2 Conclusion

Numerous investigations have been carried out about the variables impacting the financial success of insurance firms in Nepal. This study examines the impact of fundamental variables on ROA and ROE of selected life insurance companies in Nepal and to what extent the selected factors affect the profitability during the study period. The research question of the study was to find out the relationship between premium growth, firm size, solvency, book value per share with ROA and ROE. Key explanatory variables are determined by the researcher based on previous local and international investigations.

The investigation was done through a review of relevant theoretical and empirical literature. By using descriptive and statistics, correlation and regression analysis. The study's main finding is that factors that positively affect return on assets include book value per share, firm size, premium growth, and solvency. On the other hand, the return on assets is negatively impacted by both company age and the liquidity ratio. Additionally, the study demonstrated the beneficial effects of firm age and premium increase on return on equity. It was also demonstrated by the fact that return on equity is negatively impacted by solvency, liquidity ratio, book value per share, and firm

size. The study's main finding is that book value per share significantly affects return on equity and return on assets.

Finally, the results of this study uncovered new evidence in Nepalese perspective, which are considered to be valuable to market participants. Thus, findings of study seem to be particularly useful for the share investors, fund manager and economy as well, as they can take a view for these significant factors while estimating determinants and predicting profitability of the market.

5.3 Implications

The following implications have been sent in light of the study's findings:

1. The study found that there is a negative relationship between premium growth and return on assets. Therefore, insurance companies willing to increase return on assets should decrease excess premium growth.
2. The study found that solvency has positive relationship with return on equity. Hence, the insurance companies willing to increase return on equity should focus on increasing solvency ratio.
3. The study found that liquidity ratio has negative relationship with return on assets. Hence, the insurance companies willing to increase return on assets should focus on reducing the excess liquidity ratio.
4. The study observed that firm size has a positive relationship with return on equity. Hence, the insurance companies willing to increase return on equity should focus on increasing the assets size.
5. The study revealed that book value per share has a positive relationship with return on equity. Hence, the insurance companies willing to increase return on equity should focus on increasing the book value per share.

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Appendix

Companies	Year	ROA	ROE	Firm size	Premium growth	Age	Solvency	Liquidity	BVPS
PLICL	2011/12	8.8	9	940,171,000.00	40.29	4	2.6	1.31	159.17
	2012/13	6	18	1,120,000,000.00	19.17	5	1.9	1.52	165.89
	2013/14	4	15	1,220,000,000.00	15	6	1.4	1.2	191.82
	2014/15	1.7	12	1,370,000,000.00	25.63	7	1.74	1.08	314.13
	2015/16	3	11	1,720,000,000.00	19.38	8	2.08	1.09	261.12
	2016/17	3.7	13	2,040,000,000.00	18.6	9	2.8	1.12	245.85
	2017/18	2.3	17	1,210,000,000.00	40	10	1.73	1.1	153.82
	2018/19	2.5	7	2,950,000,000.00	142	11	2.11	1.11	139.42
	2019/20	2.09	10.4	16,006,566,576	11.96	12	1.86	2.77	127.66
	2020/21	1.55	11.19	24,835,820,000	22.86	13	3.94	1.8	128.13
NLICL	2011/12	2	13	3,200,000,000.00	62	10	6.78	1.87	195.93
	2012/13	5.5	18	3,900,000,000.00	21.8	11	3.17	2.87	208.14
	2013/14	3.2	4	5,680,000,000.00	45	12	3	2.68	171.1
	2014/15	3.9	4	8,090,000,000.00	42	13	3.17	1.99	136.04
	2015/16	5.2	4	10,260,000,000.00	26	14	2.74	13.02	149.16
	2016/17	2.1	3	12,220,000,000.00	19	15	3.5	15.96	250.83
	2017/18	1.9	15	16,170,000,000.00	32	16	3.13	15.64	198.45
	2018/19	2.09	14.61	24,953,788,770	35	17	3.48	13.21	144.27
	2019/20	0.7	12.01	23,115,320,000.00	42	18	2.72	10.44	176.92
	2020/21	0.6	17.79	63018260166	4.2	19	2.62	11.47	181.02
ALICL	2011/12	10	8.28	1037610301.00	10	5	2.05	15.44	174

	2012/13	9.99	6.15	1152392940.00	11	6	3.18	14.51	204
	2013/14	10	4.14	1381682706.00	19.9	7	1.65	31.34	158
	2014/15	10	3.26	1651309464.00	19.5	8	1.53	7.43	132
	2015/16	10	1.22	2003363807.00	21	9	1.56	6.34	147
	2016/17	10	10	2293953491.00	15	10	2.36	2.25	128
	2017/18	10	6	3019113009.00	32	11	1.81	1.26	117
	2018/19	10	9	4220166912.00	40	12	4	2.66	128
	2019/20	10	9	4590793625.00	9	13	3.83	1.97	147
	2020/21	10	10	5533951000.00	29	14	4.26	2.13	167
GLICL	2011/12	6	8	197,244,554	59	4	1.8	4.35	109
	2012/13	10	9	320,490,678	45	5	2.32	10.37	121
	2013/14	5	8	356,824,432	58	6	3.06	13.39	126
	2014/15	2	7	477,170,912	46	7	1.58	11.9	129
	2015/16	2.75	6	691,743,927	71	8	1.6	14.06	137
	2016/17	1	5.12	969,405,674	67.35	9	2.73	12.17	135.73
	2017/18	1.16	7.98	1,213,167,519	14.19	10	1.82	13.88	155.42
	2018/19	1.17	6.64	1,533,387,540	26.51	11	1.72	11.5	141.94
	2019/20	0.02	0.11	1,939,954,758	26.4	12	2.07	13.94	152.35
	2020/21	0.02	0.1	1,975,585,000	25.15	13	1.63	15.95	139.18
NLIL	2011/12	1.95	11.2	1,606,705,932	15.12	24	3.4	85.54	135.38
	2012/13	1.32	13.5	2,181,992,836	23.46	25	2.5	65	126.86
	2013/14	2.07	9.5	2,273,109,583	26.1	26	3.22	88.2	172.3
	2014/15	2	7.2	2,677,262,954	22.9	27	2.87	75	154.58
	2015/16	2.1	6	3,171,475,944	22.53	28	3.1	86.92	143.38
	2016/17	1.62	14	384,856,242	22.35	29	2.16	66.7	149.45
	2017/18	1.7	16.2	5,060,128,261	31.47	30	2.2	99.39	143.18
	2018/19	1.95	18.62	6,447,635,019	27.42	31	2.45	87.98	170.64
	2019/20	1.86	18.09	8,050,523,540	24.86	32	8.22	106.66	144.37
	2020/21	1.1	8.8	9,267,483,642	15.12	33	10.76	97.27	153.67