

**FACTORS AFFECTING PROFITABILITY OF NEPALESE  
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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## **CERTIFICATION OF AUTHORSHIP**

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**FACTORS AFFECTING PROFITABILITY OF NEPALESE 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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## REPORT OF RESEARCH COMMITTEE

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## APPROVAL SHEET

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## ABBREVIATIONS

AD	Anno Domini
FA	Firm Age
ALICL	Asian Life insurance company Limited
BOD	Board of Directors
BS	Bikram Sambat
C.V	Coefficient of Variation
FS	Firm Size
LEV	Leverage Ratio
LICN	Life Insurance Cooperation
LIQ	Liquidity
NIL	Neco Insurance Company Limited
NLG	NLG Insurance Company Limited
NLIC	National Life Insurance Company Limited
PG	<u>Premium</u> Growth
ROA	Return on Asset
ROE	Return on Equity
SD	Standard Deviation
SICL	Shikhar Insurance Company Limited
TA	Tangibility Assets

## ABSTRACT

This study aimed to examine the factors affecting profitability in the context of Nepalese insurance companies. Out of micro variables, selected variables Leverage (LEV), premium growth (PG), Firm age (FA), Tangibility assets (TA), Liquidity (LIQ), Firm Size (FS), Return on assets (ROA) and Return on equity (ROE) are analyzed. To carry out the study, descriptive and casual comparative research design was employed based on secondary data, of study period of 2070/71 to 2079/80. The regression analysis and correlation analysis and hypothesis test were applied for data analysis. It was found that PG, LEV, FS and TA and ROA and ROE have significant positive association on profitability of Nepalese insurance companies. Accepting the null hypothesis, found that there is no significant impact of LIQ and FA on profitability of insurance companies in Nepal. Thus, it is concluded that premium growth, leverage, firm size and tangibility assets are the key determinants of profitability of insurance companies in Nepal

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

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

Insurance companies are financial institutions that provide risk management and financial protection to individuals and organizations against various uncertainties. They operate by pooling risks from multiple policyholders and collecting premiums in exchange for coverage against potential losses. Insurance companies are subject to regulatory oversight by government authorities to ensure financial stability, fair business practices, and protection of policyholders. Regulatory bodies set guidelines for capital requirements, solvency ratios, and other parameters.

The profitability is more important for financial institutions and insurance companies are the part of them. Competition, concentration, efficiency, productivity, and profitability are the various terms of expressed by the performance of insurance companies. In the financial environment, the profitability of the insurance companies is one of the hot issues. Insurance companies contribute significantly to the stability and resilience of individuals, businesses, and the economy by offering risk management tools, financial protection, and support in times of need. Their role extends beyond individual transactions to fostering economic growth and societal well-being.

Profitability serves as a key metric for assessing the performance of financial institutions worldwide, impacting both micro and macroeconomic levels, as noted by Janga Bahadur Hamal (2020). However, Hamal's study reveals an insignificant relationship between firm size, firm age, total debt, and profitability within the sector. As a result, non-life insurance companies are advised to prioritize effective liability management to bolster profitability and maintain lower leverage ratios to mitigate above-average losses. These companies play pivotal roles in risk transfer, stimulating private investment, job creation, and financing developmental projects, as highlighted by Ngwili, K. P. (2014). Despite the sector's significant contributions to the overall economy, the global non-life insurance sector's profitability currently exhibits a weak trend, as indicated by the Swiss Re Institute (2018).

Profitability stands as the most critical variable, offering insights into the performance of any business entity. It is indispensable for the long-term survival and robust growth of an enterprise, representing one of its primary objectives. Without profitability, sustaining a business becomes untenable, impeding growth prospects. Profitability hinges on the ability of a business to generate short-term funds necessary for daily operations and other requirements. Ideally, profitability should stem from the operations of the business itself rather than relying on external debts. As highlighted by Poudel (2019), profitability encapsulates the profit derived from the business's operations, reflecting its operational efficiency and financial health.

The history of insurance in Nepal spans several decades, witnessing significant evolution in the country's insurance industry. It all began with the establishment of Rastriya Beema Sansthan (National Insurance Corporation) in 1967, marking the inception of insurance in Nepal. As the first insurance company in the nation, Rastriya Beema Sansthan laid the foundation for the industry. Subsequently, in 1975, Nepal Insurance Company Ltd. was founded, becoming the first non-life insurance provider in Nepal and heralding the commencement of non-life insurance services. The regulatory framework for the insurance sector is outlined in the Insurance Act, with oversight provided by the Insurance Regulatory Authority of Nepal (IRAN), established in 1999. The IRAN ensures adherence to regulations, fair practices, and protection of policyholders' interests. Over time, Nepal's insurance landscape has witnessed growth, with a proliferation of both public and private insurance companies offering a diverse array of life, non-life, and health insurance products, thereby enriching the sector and enhancing accessibility for consumers.

The insurance sector serves as a vital pillar in bolstering financial stability within an economy. In recent years, there has been a notable rise in interactions among various stakeholders in the financial system, including insurers, financial markets, banks, and other intermediaries. These companies not only provide insurance coverage and mitigate financial risks for individuals and businesses but also play a substantial role in the functioning of financial markets, as highlighted by the European Central Bank (2009). Consequently, they play a crucial role in maintaining financial stability for households, firms, and the multitude of investors engaged in stock market transactions. As a result, profitability has emerged as a prerequisite for insurance companies, with the sector's

profitability holding significance for both micro and macro-level stability within the financial sector.

Indeed, insurance companies are intricately intertwined with the smooth functioning of the financial system, rendering them susceptible to its fluctuations. The failure of a single firm within the industry can trigger significant financial upheaval within the economy, a risk that has manifested in past occurrences, as noted by the European Central Bank (2009). Given this precarious scenario, it becomes imperative to scrutinize the factors influencing profitability in non-life insurance companies, given their substantial impact on the broader economy. Economists have devoted considerable effort to identifying such determinants, with key indicators including return on assets (ROA) and return on equity (ROE). However, as highlighted by Burca and Batrinca (2014), specific panel data techniques have revealed additional determinants of financial performance in the Romanian insurance market. These include financial leverage, company size, growth of gross written premiums, underwriting risk, risk retention ratio, and solvency margin, underscoring the multifaceted nature of profitability within the insurance sector.

## **1.2 Problem of Statement**

Profitability is foundation of the organization which is always topic of concern to evaluating the financial position (Al-Shami,2008). The survival of any insurance company is determined by this issue. Growth in profitability make the survival of insurance companies in longrun. This study is thus, conducted to identify the impacts of firm-specific variables on determining the profitability of insurance companies in Nepal. In precise, it analyzes the relationship between firm age (FA), leverage (LEV), liquidity (LIQ), tangibility assets (TA), premium growth (PG) and firm size (FS) of the firm with its profitability, which is calculated in terms of return on assets(ROA) and return on equity (ROE).

The study is expected to answer the following research questions.

- What is the current status of profitability of selected insurance companies?
- Is there any relationship between variables i.e. firm age (FA), leverage (LEV), liquidity (LIQ), tangibility assets (TA), premium growth (PG), firm size (FS) and return on assets (ROA) and return on equity (ROE) of selected insurance companies?
- How does factors (FA, LEV, LIQ, TA, PG and FS) impact profitability (ROA and

ROE) of selected insurance companies?

### 1.3 Objectives of the Study

The major objective of the study is to find the factors and evaluate the factors affecting profitability of the insurance's companies of Nepal. Thus, this study has been conducted to achieve the following objectives:

- To examine the current status of profitability of selected insurance companies.
- To analyze the relationship between variables i.e. firm age (FA), leverage (LEV), liquidity (LIQ), tangibility assets (TA), premium growth (PG), firm size (FS) and return on assets (ROA) and return on equity (ROE) of selected insurance companies.
- To examine the impact of factors (FA, LEV, LIQ, TA, PG and FS) on profitability (ROA and ROE) of selected insurance companies.

### 1.4 Hypothesis of Theory

Hypothesis refers to the assumption about the result of the study i.e., null and alternatives.

Alternative Hypothesis of the Study tested are as follows;

H1: There is significance association between factors (FA, LEV, LIQ, TA, PG and FS) and profitability (ROA and ROE) of selected insurance companies.

H2: There is significance impact of major factors (FA, LEV, LIQ, TA, PG and FS) on profitability (ROA and ROE) of selected insurance companies.

### Hypothesis for ANOVA

H<sub>0</sub>: There is no linear relationship between dependent variables (ROA) and independent variable (FA).

H<sub>1</sub>: There is no linear relationship between dependent variables (ROA) and independent variable (LEV).

H<sub>3</sub>: There is no linear relationship between dependent variables (ROA) and independent variable (LIQ).

H<sub>4</sub>: There is no linear relationship between dependent variables (ROA) and independent variable (TA).

H<sub>5</sub>: There is no linear relationship between dependent variables (ROA) and independent variable (PG).

H<sub>6</sub>: There is no linear relationship between dependent variables (ROA) and independent variable (FS).

H<sub>7</sub>: There is no linear relationship between dependent variables (ROE) and independent variable (FA).

H<sub>8</sub>: There is no linear relationship between dependent variables (ROE) and independent variable (LEV).

H<sub>9</sub>: There is no linear relationship between dependent variables (ROE) and independent variable (LIQ).

H<sub>10</sub>: There is no linear relationship between dependent variables (ROE) and independent variable (TA).

H<sub>11</sub>: There is no linear relationship between dependent variables (ROE) and independent variable (PG).

H<sub>12</sub>: There is no linear relationship between dependent variables (ROE) and independent variable (FS).

H<sub>13</sub>: There is linear relationship between dependent variables (ROA) and independent variable (FS).

H<sub>14</sub>: There is linear relationship between dependent variables (ROA) and independent variable (LEV).

H<sub>15</sub>: There is linear relationship between dependent variables (ROA) and independent variable (LIQ).

H<sub>16</sub>: There is linear relationship between dependent variables (ROA) and independent variable (TA).

H<sub>17</sub>: There is linear relationship between dependent variables (ROA) and independent variable (PG).

H<sub>18</sub>: There is linear relationship between dependent variables (ROA) and independent variable (FS).

H<sub>19</sub>: There is linear relationship between dependent variables (ROE) and independent variable (FA).

H<sub>20</sub>: There is linear relationship between dependent variables (ROE) and independent variable (LEV).

H<sub>21</sub>: There is linear relationship between dependent variables (ROE) and independent variable (LIQ).

H<sub>22</sub>: There is linear relationship between dependent variables (ROE) and independent

variable (TA).

H<sub>23</sub>: There is linear relationship between dependent variables (ROE) and independent variable (PG).

H<sub>24</sub>: There is linear relationship between dependent variables (ROE) and independent variable (FS).

### **1.5 Significance of the study**

The examination of factors influencing the profitability of Nepalese insurance companies holds significant importance in guiding managerial decisions. Every organization must continuously assess its financial performance at every stage of its operations, promotion, and expansion. Achieving an appropriate balance between earning and non-earning assets is essential for insurance companies, guided by the overarching objective of profitability. All financial decisions undertaken by insurance companies are aimed at enhancing shareholder wealth, necessitating an effective allocation of funds to mitigate the risk of losses. It is crucial to strike the right balance between risk and return, ensuring the financial stability and sustainability of insurance firms. The study seeks to determine whether insurance companies in Nepal are adequately vigilant in this regard, thereby contributing to the enhancement of their operational efficiency and long-term viability.

This study holds promise for enhancing the financial performance of the organizations under scrutiny. It offers valuable insights that can be utilized by a wide range of stakeholders, including academicians, students, teachers, and practitioners in the fields of accounting and finance. Additionally, the findings of this study will provide enlightenment to shareholders, financial agencies, stock exchanges, stock traders, customers, depositors, and debtors, enabling them to make informed decisions when engaging with insurance companies. By offering objective assessments, this study serves as a valuable resource for stakeholders seeking to identify and engage with insurance companies effectively.

### **1.6 Limitations of the study**

In the context of Nepal, problem of reliable data is the major problem for research study. There is considerable place for arguing about its accuracy and reliability. Every study has limitations due to different factors of institutions, time-period taken, reliability of statistical data, tools and variances. The following limitations are pointed out in this study of factors

affecting profitability of Nepalese insurance companies.

- The scope of study is limited within the sampled insurance companies only.
- This research study is fully based on secondary data which have been collected from books, financial statements, report and companies' websites and other publication.
- This study only focuses on specific internal variables that affect the profitability of the insurance companies such as firm age (FA), leverage (LEV), liquidity (LIQ), tangibility assets (TA), premium growth (PG) and firm size (FS) so, other variables are not focus for the study.
- The study has covered the data of past ten fiscal years (2070/71 to 2079/80 BS) only and hence the conclusion drawn confines only to the above period.
- This study is carried out to fulfill the partial requirement of MBS rather than solving the problem.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

The aim of conducting a literature review is to present the existing knowledge and ideas on a particular topic, along with their strengths and weaknesses. This chapter thoroughly examines various sources including books, dissertations, reports, handouts, and articles from journals and newspapers. It is organized into four main sections. Firstly, the theoretical review provides an overview of the current state of knowledge by comparing and contrasting different theories relevant to the topic. Secondly, the conceptual review delves into understanding and evaluating underlying ideas and concepts. Thirdly, the empirical review focuses on analyzing empirical studies and research findings within the specific field or topic, shedding light on real-world applications and outcomes. Lastly, the research gap section identifies areas of limitation or voids in current knowledge, highlighting the need for additional research to fill these gaps and address unanswered questions. This section helps researchers identify where new studies or investigations could contribute valuable insights, enhance understanding, or provide solutions to unresolved issues within the field.

#### **2.1 Theoretical Review**

##### **Theory of Risk Pooling**

The theory of risk pooling is a fundamental concept in insurance, embodying the principle that by aggregating diverse and independent risks into a collective pool, insurers can effectively manage and spread the financial impact of unforeseen events. At its core, risk pooling relies on the likelihood that not all policyholders will experience a loss simultaneously. Each policyholder contributes a premium to the insurance company, collectively forming a fund that serves as a financial reservoir. When an individual policyholder incurs a covered loss, the financial burden is borne by the pooled funds, mitigating the impact on any single policyholder. This approach enables insurers to diversify risk across a broad spectrum of policyholders, harnessing the statistical probability that the overall frequency and severity of losses can be predicted with greater accuracy. The concept of risk pooling is instrumental in providing a financial safety net for policyholders while allowing insurers to maintain stability and sustainability in the face of unpredictable events, thereby fulfilling a central role in the broader societal function of risk

management (Djamaluddin, and Herawaty, 2019).

### **Theory of Risk Transfer and Indemnification**

The theory of risk transfer and indemnification forms the bedrock of insurance, representing the contractual arrangement between policyholders and insurers to mitigate financial uncertainties arising from unforeseen events. At its essence, this theory revolves around the notion that individuals or entities can transfer the financial burden of specific risks to insurers in exchange for the payment of premiums. Policyholders seek protection against potential losses, and insurers, in turn, assume the responsibility of indemnifying them for covered claims. The process involves a mutual agreement wherein policyholders receive compensation to restore them to their pre-loss financial state. This theory operates on the premise that the collective contributions of premiums from a diverse group of policyholders create a pool of funds that insurers can draw upon to fulfill their indemnification obligations. Risk transfer and indemnification, therefore, provide a mechanism for financial security, allowing policyholders to transfer the uncertainties associated with certain risks to insurers and enabling the latter to fulfill their commitment to restoring financial stability in times of adversity.

### **Theory of Utmost Good Faith**

The theory of utmost good faith, also known by its Latin term "uberrimae fides," is a foundational principle in insurance contracts, emphasizing the highest standard of honesty, transparency, and full disclosure between the parties involved. This concept has historical roots dating back to maritime insurance practices in England during the 18th century. The Lloyd's of London insurance market, established in the late 17th century, played a significant role in shaping the principle of utmost good faith. In maritime trade, where risks were inherently uncertain, shipowners and insurers engaged in contracts based on a profound trust that each party would provide complete and accurate information about the risks involved. The concept was later enshrined in legal precedent and statutes, emphasizing the mutual obligation of the insured and the insurer to act with the utmost good faith. This theory requires the insured to disclose all material facts relevant to the insurance contract, and it places a corresponding duty on the insurer to fairly assess and underwrite the risks. Utmost good faith is not only a legal requirement but a fundamental ethical principle that fosters trust and integrity within the insurance industry, contributing to the stability and reliability of insurance contracts (Greene, and Segal, 2004).

### **Reinsurance and Risk Transfer Beyond the Company Theory**

The theory of reinsurance and risk transfer beyond the company represents a critical aspect of the insurance industry, enabling insurers to manage their exposure to large or unexpected losses by ceding a portion of their risks to other insurers. The history of reinsurance dates back centuries, with early practices seen in the coffee houses of London in the 17th century, where insurers would gather to spread risks among themselves. However, the formalization of reinsurance as a systematic practice began in the 19th century as the volume and complexity of risks increased. The theory operates on the principle that an insurer can transfer some of its risk to another insurer (the reinsurer) in exchange for a premium. This process helps the primary insurer diversify its risk portfolio, enhance solvency, and ensure it can meet its obligations to policyholders even in the face of catastrophic events. The reinsurer, in turn, assumes a portion of the risk and premium but on a larger scale, leveraging its own financial strength and risk tolerance. The theory of reinsurance not only facilitates risk transfer beyond the confines of a single company but also contributes to the stability of the entire insurance industry by distributing risk across a broader spectrum of participants. It plays a crucial role in maintaining the financial health of insurers and, by extension, the overall resilience of the insurance market.

### **Risk Management and Loss Prevention Theory**

The theory of risk management and loss prevention is rooted in the fundamental principle of proactively identifying, assessing, and mitigating potential risks to minimize the adverse impact of uncertain events. Historically, the concept of risk management can be traced back to ancient civilizations, where seafaring communities devised strategies to protect their assets from maritime perils. However, the formalization of risk management as a systematic discipline began to emerge in the 20th century. Pioneering scholars and practitioners, such as Frank Knight and Ludwig von Mises, contributed foundational concepts to the field of risk management. Knight, in his work "Risk, Uncertainty, and Profit" (1921), distinguished between measurable risks and unmeasurable uncertainties, laying the groundwork for understanding risk in economic contexts. The theory expanded with the contributions of other scholars like Peter Drucker and Kenneth Arrow. In the realm of loss prevention, safety engineering and industrial practices have played a crucial role. Notable contributors to loss prevention theory include industrial safety pioneers like Herbert William Heinrich, who developed the influential "Heinrich's Law" in the early 20th century. Today, risk management has evolved into a multidisciplinary field, integrating

insights from finance, insurance, operations, and strategic management. The theory emphasizes a holistic approach that combines risk identification, assessment, and the implementation of strategies for loss prevention and mitigation, fostering a proactive and resilient approach to uncertainties in various domains

### **Actuarial Science and Pricing Model Theory**

Actuarial science and pricing models constitute a fundamental theory within the insurance industry, relying on mathematical and statistical methodologies to assess risk and determine appropriate premium rates. The origins of actuarial science can be traced back to the 17th century, with the emergence of life insurance and the need for a systematic approach to calculate premiums and reserves. One of the early contributors to actuarial principles was Edmond Halley, known for his work on life annuities in the late 17th century. The formalization of actuarial science gained momentum in the 19th century, with the establishment of the actuarial profession and the Institute of Actuaries in London in 1848. Notable figures like Augustus De Morgan and William Morgan played pivotal roles in shaping actuarial techniques during this period. Theoretical advancements continued into the 20th century, with the development of modern risk theory by actuaries like Emil Julius Gumbel. In terms of pricing models, the application of mathematical models to determine insurance premiums became more sophisticated in the latter half of the 20th century. Actuarial models evolved to incorporate complex statistical methods, financial mathematics, and computer technology. Writers such as Robert J. Myers and James C. Hickman contributed extensively to the development of pricing models in insurance. Today, actuarial science is a well-established discipline, and pricing models are essential tools for insurers to set premiums that reflect the expected costs of claims, administrative expenses, and the desired level of profitability. Actuaries continually refine and adapt pricing models to address the evolving landscape of risk and uncertainty in the insurance industry.

### **2.2 Conceptual Review**

A conceptual review of insurance companies involves exploring the foundational ideas and principles that underpin their existence, operations, and role in the broader economic landscape. Here's an overview of key concepts:

### **Profitability of Insurance Companies**

Profitability, a compound term derived from "profit" and "ability," encompasses the earning potential of a business entity. While profit refers to the surplus gained from operations, ability denotes the capacity or prowess of the entity to generate such profits. This includes factors such as efficiency, productivity, and overall operational performance. In essence, the term encapsulates not only the actual profit accrued but also the inherent capability of the business to consistently yield positive financial outcomes.

Profitability can be described as the capacity of a particular investment to generate returns through its utilization. Unlike profit, which represents a definitive figure, profitability is a comparative notion. Evaluating the effectiveness of capital utilization and assessing operational efficiency are key components of profitability analysis, which is widely recognized as a top-tier methodology. This approach provides valuable insights into the effectiveness of investments and operational strategies, serving as a vital tool for decision-making within various sectors of business.

Profitability in banking denotes the surplus income attained when a company's revenues surpass its expenses. This income emanates from the bank's operational activities, while expenses represent the costs incurred in generating profit. Central to a company's objectives, profitability ensures its sustainability in the market over the long term. Therefore, it's imperative for businesses to rigorously assess past, present, and projected profitability. The income statement displays revenue and expenses, serving as a gauge of a company's profitability, while the cash flow statement showcases cash inflows and outflows, offering insights into the company's liquidity position.

The efficiency of a firm is gauged and quantified through its profitability, which serves as a metric for assessing its earning potential and operational prowess. Essentially, profitability reflects the organization's capacity to generate profits from its activities and operations. In essence, the financial performance of a company directly influences its efficiency, encapsulated by its ability to yield profits.

Profit represents the financial outcome derived from the variance between revenues and expenses within a specified timeframe, typically a year. It stands as the ultimate output for any company, crucial for its continued existence and future prospects. Consequently,

financial managers must continuously assess the company's efficiency based on its profit generation. Profitability ratios serve as tools to gauge the operational effectiveness of the firm, a concern not only for management but also for creditors and owners. Creditors seek regular interest payments and principal repayments, while owners expect a satisfactory return on their investments, achievable only through sustained profitability.

Similarly, insurance companies are established with profit as a primary objective, essential for their longevity. Stakeholders, including management, investors, and depositors, place significant emphasis on profitability, as it ensures the company's viability and attractiveness for investment. A profitable track record not only satisfies stakeholders but also facilitates easier access to funds, enabling insurance companies to invest in lucrative sectors and conduct their operations smoothly.

Profitability stands as a crucial indicator, mirroring the financial robustness and longevity of insurance companies. This metric is shaped by various elements such as underwriting performance, investment returns, and adept risk management. Underwriting, which involves evaluating and pricing risks, holds particular importance as insurers strive to find the equilibrium between competitive premiums and accurately forecasting potential losses. Additionally, investment returns, stemming from judiciously managed premiums, significantly contribute to profitability. Successfully navigating unpredictable financial markets and yielding returns on investments are pivotal for insurers' financial viability.

Furthermore, it is crucial for insurers to implement effective risk management strategies to fortify their resilience against unexpected occurrences and catastrophic losses. Claims management, an integral aspect of risk mitigation, entails streamlined processing and settlement procedures, directly affecting insurers' expenditures and overall profitability. External variables such as economic circumstances, interest rate fluctuations, and regulatory frameworks also wield significant sway. Economic downturns can curtail premium expansion, whereas environments characterized by low interest rates might constrain investment yields.

In a constantly changing environment, strategic decision-making, innovation, and adaptability are paramount for insurers to maintain profitability. Embracing technological progress not only streamlines operations but also enables the introduction of inventive

products and services, catering to the changing demands of clients. Ultimately, a careful equilibrium between risk management, wise investments, adherence to regulations, and customer-focused approaches is crucial for insurance firms to attain and uphold profitability. This ensures their capacity to meet their financial commitments to policyholders over the extended term.

### **2.3 Empirical Review**

Berger et al. (1997) argued that understanding the financial performance of financial services firms can be challenging due to the intangible nature of their outputs and the opacity surrounding resource allocation decisions. The profitability of a company hinges on a combination of internal and external factors. Internally, it is influenced by metrics such as liquidity ratio, inventory turnover ratio, return on assets, return on equity, and the company's size. These internal determinants play a significant role in shaping the company's financial health and performance.

Shiu (2004) examined the factors influencing the performance of UK general insurance companies between 1986 and 1999, utilizing three primary metrics: investment yield, percentage change in shareholders' funds, and return on shareholders' funds. The research revealed that insurer performance correlates positively with interest rates, return on equity, solvency margin, and liquidity. Conversely, there is a negative correlation between firm performance and inflation, as well as reliance on reinsurance. However, profitability shows a positive relationship with leverage. Chen and Wong (2004) demonstrated that as the equity ratio increases, the profitability of insurance companies tends to decrease. The study further identified size, investment, and liquidity as critical determinants of the financial well-being of insurance firms.

Al-Shami (2008) conducted a study on insurance companies in the UAE, examining age, leverage, capital, loss ratio, and firm size as factors influencing profitability. The research found no discernible correlation between a company's age and its profitability. However, it noted a significant and positive association between firm size and capital with profitability. Conversely, the study identified a significant and negative correlation between leverage and loss ratio with profitability. Ordinary least squares regression analysis revealed that both leverage and age had significant and negative impacts on insurance firms' profitability. Conversely, firm size emerged as a

significant indicator positively affecting profitability. Additionally, the study emphasized the importance for firms to actively manage and optimize their liquidity positions.

Kozak (2011) investigated the factors influencing the profitability of 25 general insurance companies in Poland over the period of 2002–2009. Using regression analysis, the study identified that an increase in gross written premiums, reduction in operating costs, growth in GDP, and expansion of market share for companies with foreign ownership positively impacted insurance company performance. Similarly, Malik (2011) observed a positive and significant relationship between size and capital volume, a negative and significant correlation with financial leverage, and an insignificant impact of company age on profitability. Similarly, Ahmed et al. (2011) highlighted that the performance of Pakistani life insurance companies is influenced by their size, risk exposure, and leverage. Curak et al. (2011) examined the determinants of financial performance among Croatian composite insurers from 2004 to 2009 using panel data analysis. Their findings indicated that company size, underwriting risk, inflation, and return on equity significantly influence insurers' profitability. Additionally, Ikonic et al. (2011) analyzed the profitability of Serbian insurance companies employing the IMF CARMEL methodology. Their study underscored the critical importance of capital adequacy in generating satisfactory levels of profitability for insurance firms.

Almajali et al. (2012) conducted an analysis of insurance companies listed on the Amman Stock Exchange spanning from 2002 to 2007. Their findings revealed that liquidity, leverage, company size, and management competence index positively impact the financial performance of insurers. Similarly, Pervan et al. (2012) investigated the determinants of insurance company profitability over the period from 2005 to 2010. Utilizing a dynamic panel model with GMM estimator, the research highlighted a notable negative correlation between the loss ratio and profitability. Additionally, the study identified significant positive associations between age, market share, past performance, and current performance.

Ayele (2012) conducted a study exploring the internal factors influencing the profitability of insurance companies, measured by Return on Assets (ROA). Utilizing secondary data spanning from 2003 to 2011, the study focused on a sample of 9 operational insurance

companies. Descriptive statistics and regression analysis were employed to delineate the profitability trends within the insurance sector. This chapter presents the study's conclusions by summarizing its findings, discussing their implications, and offering suggestions for future research. Investigating the impact of firm-level characteristics on the performance of Ethiopia's insurance sector over a nine-year period, variables such as size, capital volume, age, leverage, liquidity, growth, and tangibility were examined, with ROA as the dependent variable. Regression analysis revealed that leverage, size, capital volume, growth, and liquidity were the most significant determinants of life insurance sector performance, while ROA exhibited a statistically insignificant relationship with age and tangibility. Additionally, Pervan et al. (2012) analyzed factors influencing insurance company profitability from 2005 to 2010, identifying a significant negative impact of the loss ratio on profitability, alongside significant positive influences of age, market share, and past performance. Charumathi (2012) defines profitability as the capacity of a developing business to efficiently utilize its assets to generate revenues.

Mehari and Aemiro (2013) conducted an investigation into the influence of Ethiopian insurance companies' characteristics on their performance. The study encompassed analysis of 9 insurance companies using panel data techniques spanning from 2005 to 2010. Findings revealed that factors such as company size, loss ratio, tangibility, and leverage exerted significant impacts on insurance companies' profitability. Conversely, variables like growth of gross written premiums, age, and liquidity demonstrated insignificant effects on profitability. Additionally, the study highlighted the significant positive effects of liquidity, leverage, company size, and management competence index on insurers' financial performance. Similarly, external determinants such as the real domestic product growth rate (GDP), national inflation rate, and interest rate were identified by Kanwal and Nadeem (2013). Boadi et al. (2013) similarly affirmed a positive correlation between liquidity ratio and insurance companies' profitability.

Burca and Batrinca (2014) conducted an analysis of the factors influencing financial performance within the Romanian insurance market over the period 2008–2012. The study's findings indicated a negative impact of underwriting risk on financial performance, suggesting that excessive underwriting risk could compromise a company's stability by leading to higher expenses. Conversely, the research revealed a positive correlation between firm size and insurers' financial performance, suggesting that larger

firms benefit from greater resources, improved risk diversification, advanced information systems, and more effective expense management. Additionally, the study highlighted the negative influence of insurance financial leverage on financial performance, reflecting the potential impact of technical reserves deficit on equity during unexpected losses. Through the application of panel data techniques, the research demonstrated the significant influence of company size, underwriting risk, inflation, and return on equity on insurers' profitability.

Gebremariyam (2014) proposed that insurance managers and policymakers should prioritize attention to firm-specific factors to improve profitability. The research revealed a positive correlation between firm size, asset tangibility, firm growth, and managerial efficiency with the profitability of insurance companies. Conversely, the study found a negative relationship between leverage ratio and loss ratio/risk with profitability. Similarly, Ngwili (2014) identified a positive association between the quick ratio and profitability of insurance companies. Additionally, the study highlighted a detrimental impact of leverage ratio and loss ratio on the profitability of insurance companies.

Lee (2014) examined the interplay between firm-specific factors and macroeconomic indicators on profitability within the Taiwanese property-liability insurance industry. The study revealed that firm-specific factors exerted a significant influence on profitability in both operating ratio and Return on Assets (ROA) models. Additionally, it found that economic growth rate significantly affected profitability in the operating ratio model but did not have a significant impact in the ROA model. Similarly, Moro and Anderloni (2014) explored the impact of specific factors on insurance performance across 198 European insurance companies spanning from 2002 to 2014. Their research concluded that asset size and diversification had a negative effect on Return on Assets (ROA), whereas reserves dimension and asset turnover positively influenced insurance company performance. Furthermore, Pradhan (2014) observed that gross domestic product and market share were positively associated with bank profitability, while inflation and liquidity demonstrated a negative relationship with bank profitability.

Ghimire (2015) explored the potential impact of efficiently mobilizing the substantial funds generated by the insurance industry, highlighting its potential for significant positive effects on the overall economy. Therefore, it emphasizes the importance of

conducting thorough research to mitigate the risk of failure among insurance companies. In Nepal, the role of non-life insurance companies is expansive, with significant growth potential despite the sector's nascent stage. To maximize profitability, it is crucial to examine various firm-specific factors and ownership structures affecting insurance companies. The study revealed a negative correlation between tangibility and liquidity with Return on Assets (ROA), while firm size, age, and leverage exhibited a positive relationship. Likewise, liquidity was negatively associated with Return on Equity (ROE), whereas firm size, age, leverage, and tangibility showed a positive relationship. Regression analysis identified firm size as the most influential factor in determining insurance company profitability. In contrast, Mwangi and Murigu (2015) argued that firm size negatively impacts insurance company profitability. Another study on non-life insurance companies in Turkey found a positive relationship between firm size and profitability, while firm age was negatively correlated with profitability (Kaya, 2015). Similarly, Pradhan and Shrestha (2015) revealed a negative impact of liquidity but a positive impact of size on firm financial performance. Additionally, Dahal et al. (2015) found that gross domestic product growth rate and inflation rate positively influenced Return on Assets (ROA) but negatively impacted Return on Equity (ROE).

Cekrezi (2015) examined the financial performance of Albanian insurance companies, considering leverage, tangibility, flexibility, size, and risk as independent variables. The findings demonstrated a significant positive correlation between tangibility and flexibility with the performance indicator return on assets. Conversely, variables such as debt ratio and risk exhibited negative and significant effects on performance. Interestingly, the size of the company did not play a significant role in performance as measured in Albania. Similarly, Nyabate's (2015) study indicated a positive but weak relationship between liquidity and financial performance, suggesting that liquidity alone does not solely determine profitability, as other contributing variables exist. Additionally, Wondwossen (2016) explored the impact of both internal and external factors on the profitability of general insurance companies in India. Internal factors such as company size, capital adequacy, liquidity ratio, and premium growth, as well as external factors like GDP and inflation rate, were found to influence profitability, with Return on Equity (ROE) serving as a proxy variable.

Similarly, Hidayat and Firmansyah (2017) investigated the impact of various factors on the performance of 15 Islamic insurance companies in Indonesia from 2011 to 2015. Their findings indicated that the board of directors had no significant influence on company performance. However, factors such as leverage, institutional ownership, and managerial ownership were found to have a significant effect on profitability. Berhe and Kaur (2017) conducted research on insurance companies in Ethiopia, identifying firm-specific factors such as size, capital, liquidity, and growth rate as significant determinants of profitability, as measured by return on assets (ROA). Conversely, factors like leverage ratio and loss ratio were found to have negligible relationships. In a study by Kramaric et al. (2017), which analyzed the influence of firm-specific, industry-specific, and macroeconomic variables on the profitability of insurance markets in central and eastern European countries, findings revealed that variables such as size, age, combined ratio, share premium, and real gross domestic product significantly influenced return on equity. Additionally, firm age emerged as a crucial factor, showing a significant and positive relationship with both return on assets and return on equity for insurance companies. Furthermore, Akhtar (2018) examined the performance of insurance companies in Saudi Arabia from 2010 to 2015, discovering that market share and profitability significantly impacted the efficiency of Saudi insurance companies.

Veronica and Ababio (2018) conducted a study in Ghana which revealed a positive and statistically significant correlation between profitability and debt. The research concluded that profitable insurance companies rely on long-term debt. Furthermore, it identified a positive relationship between profitability and the capital structure of these companies. However, some argue that external factors such as GDP, inflation, and interest rates in a given country also significantly impact profitability at a national level.

Zainudin et al. (2018) undertook a study focusing on firm-specific internal factors influencing profitability performance across several Asian countries, including China, Hong Kong, Taiwan, Singapore, Japan, South Korea, Thailand, and Malaysia. Their research findings demonstrated that variables such as size, capital, and underwriting risk significantly contributed to determining the Return on Assets (ROA) of insurance companies in these Asian regions. However, the model indicated an insignificant relationship between premium, tangibility, and liquidity with profitability.

Djameluddin and Herawaty (2019) conducted an analysis on the factors influencing profitability within Indonesia, focusing on 69 general insurance companies from 2012 to 2017. Employing two models, namely the Generalized Least Square (GLS) and Random Effect Model (REM), the study investigated various determinants. It revealed that leverage and underwriting risk had significant negative impacts on profitability. Conversely, company size exhibited a significant and positive effect on Return on Assets (ROA). However, liquidity and tangibility showed no discernible effect on return on assets. The study recommended that companies should aim to maintain or reduce leverage and underwriting risk ratios, as both were found to have adverse effects on profitability. Additionally, increasing company size was suggested as it was shown to have a positive impact on profitability.

A recent study undertaken in India by Hussanie and Joo (2019) unveiled that several factors including liquidity, loss ratio, investment performance, operating margin, premium growth, and tangibility play significant roles in determining profitability, as gauged by Return on Assets (ROA). Conversely, variables such as leverage, commission ratio, and size were deemed insignificant in explaining profitability based on ROA. The exploration of factors shaping the profitability of insurance companies has garnered considerable attention globally. However, as evidenced by the literature discussed above, there exists no unanimous consensus on the determinants of profitability. These determinants vary depending on the unique characteristics of financial institutions across different countries.

Mishra and Pradhan (2019) delved into the factors influencing the profitability of insurance companies in Nepal. Their research demonstrated that liquidity, leverage, company size, and management competence index exerted a significant positive impact on the financial performance of insurers. Moreover, the study highlighted a significant positive influence of age, market share, and past performance on current performance within the industry.

Bhattarai (2020) conducted an analysis on the factors impacting the profitability of Nepalese insurance companies. The study utilized panel data from 10 insurance companies spanning the period from 2012/13 to 2017/18, resulting in 50 observations over a five-year timeframe. Return on Equity (ROE) was employed as the measure of profitability, serving as the dependent variable. The study incorporated Expenses Ratio

(ER), Financial Leverage (FL), and Size of Company (LnTA) as independent variables. Data analysis was carried out using SPSS 25 Software. The findings indicated a positive relationship between expenses ratio and other independent variables. Ultimately, the study concluded that financial leverage and company size were the primary determinants of profitability in Nepalese insurance companies.

In Nepal's context, Dahal et al. (2020) conducted an examination of liquidity management and financial performance among Nepalese insurance companies. Their findings indicated that insurance premium had a positive impact on both return on assets and earnings per share, suggesting that an increase in insurance premium correlated with higher returns on assets and earnings per share. Similarly, firm size was found to have a positive influence on return on assets and earnings per share, suggesting that an increase in firm size corresponded with increased returns in these areas. Additionally, Budhathoki et al. (2020) demonstrated a positive relationship between bank size and return on assets, suggesting that larger banks tend to achieve higher returns on assets. Likewise, Upadhyaya (2020) observed a positive impact of firm size on return on assets. However, leverage ratio and liquidity ratio were found to have a negative impact on return on assets, indicating that higher levels of leverage and liquidity could lower returns on assets. Conversely, while leverage ratio was associated with a negative impact on return on assets, it had a positive impact on return on equity.

Hamal (2020) highlighted the significance of the financial performance of life insurance companies in managing revenues, assets, liabilities, and the interests of stakeholders. However, despite this importance, there is a scarcity of studies addressing the primary determinants of these companies' financial performance. To address this gap, the study aimed to assess the impact of various firm-specific factors such as firm size, liquidity ratio, short-term debt, long-term investment, and firm age on the financial performance of life insurance companies in Nepal. The study focused on two dependent variables, namely return on assets (ROA) and return on equity (ROE). Data were collected from seven life insurance companies over a decade, spanning from 2009/10 to 2018/19, using financial statements published annually by the selected companies, the Insurance Board of Nepal, and the Nepal Stock Exchange. Descriptive statistics, correlation analysis, and regression models were employed to analyze the impacts of firm-specific variables on ROA and ROE. The findings revealed a negative and statistically significant relationship between

size and long-term investment with financial performance. Additionally, the study indicated that older companies may face challenges in accumulating profits. Notably, firm size and long-term investment emerged as the most influential factors affecting the financial performance of Nepalese life insurance companies, while the impact of liquidity appeared to be weak. The study underscored the importance of cautious consideration regarding over-investment in long-term investments, as it could negatively affect future profitability. Similarly, it emphasized that increasing firm size should be approached cautiously to avoid potential diseconomies of scale and a reduction in profitability.

Hamal (2020) investigated the influence of liquidity ratio, leverage ratio, firm size, age of the firm, and total debt on the profitability of non-life insurance companies in Nepal. The study utilized return on asset (ROA) as the dependent variable to gauge profitability. Over a span of ten years, from 2066/67 to 2075/76, secondary data from nine non-life insurance companies were analyzed. These data were sourced from the annual financial statements of the selected non-life insurance companies. Descriptive statistics, correlational analysis, and regression models were employed to examine the impact and significance of the chosen independent variables on ROA. The findings indicate that the profitability of Nepalese non-life insurance companies tends to increase with higher liquidity ratios but decrease with higher leverage ratios. However, the study found no significant relationship between firm size, firm age, and total debt with profitability in the sector. Consequently, the study suggests that non-life insurance companies should prioritize effective management of liquidity to meet liabilities and enhance profitability. Additionally, maintaining a lower leverage ratio is advised to manage potential losses effectively.

Jaishi (2020) conducted an analysis to explore the relationship between capital structure and the financial performance of Nepalese insurance companies. The study utilized return on assets and earnings per share as dependent variables, while the independent variables consisted of total debt ratio, equity to total assets ratio, size, liquidity, and tangibility. Employing a descriptive and causal-comparative research design, the paper aimed to investigate the general structure of capital and financial performance and their interrelation. Data were gathered from the annual reports of listed insurance companies in Nepal, resulting in 84 observations from 14 insurance firms spanning from 2013/14 to 2018/19. Regression models were employed to assess the impact of capital structure variables on financial performance indicators such as return on assets and earnings per

share. The findings revealed that insurance companies with higher debt ratios tended to exhibit better financial performance. Specifically, an increase in debt ratio and tangibility was associated with higher return on assets, while an increase in equity, size, and liquidity was linked to lower return on assets within the industry. Moreover, the study identified a positive impact of debt ratio and tangibility on earnings per share, alongside a negative impact of equity, size, and liquidity ratio. The study's primary conclusion was that total debt ratio, equity to total assets ratio, leverage, size, liquidity, and tangibility were significant factors influencing the financial performance of Nepalese insurance companies. To enhance financial performance, insurance companies in Nepal could consider increasing their total debt ratio and tangible assets while decreasing equity, firm size, and liquidity ratio.

Risal (2020) sought to examine the relationship between financial performance and company size, liquidity, leverage, and underwriting risk within non-life insurance companies in Nepal, utilizing a decade of published data from five such companies. Employing a descriptive and analytical research design, the study aimed to elucidate the cause-and-effect dynamics through regression and correlation analyses. The dataset comprised fifty firm-years observations. Correlation, multiple regression analysis, and F-statistic were employed to ascertain the relative significance of variables in influencing financial performance. The findings suggest that the sizes of non-life insurance companies significantly impact their profitability positively, while fluctuations in liquidity have negligible effects on their performance. Moreover, non-life insurance firms with higher leverage exhibited lower financial performance. Furthermore, the study concludes that variations in benefits paid and net premium do not lead to changes in non-life insurance companies' return on assets. The dimensions of non-depository financial institutions and leverage emerge as the primary variables influencing the financial performance of non-life insurance companies in the Nepalese context. Additionally, Sasidharan et al. (2020) examined the impact of firm-specific and macroeconomic factors on insurance companies' profitability. The study analyzed how variables such as firm size, liquidity, tangibility, dividend per share, premium growth, inflation, gross domestic product, and money supply influence return on assets and return on equity.

Jaishi and Poudel (2021) conducted an examination of the composition of firm-specific factors and their impact on the financial performance of both life and non-life insurance companies in Nepal. Employing a descriptive and causal-comparative research design, the study utilized panel data from 14 insurance companies listed on the Nepal Stock Exchange (NEPSE), resulting in 140 observations spanning a decade from 2009/10 to 2018/19. The findings indicate that insurance companies with higher debt ratios tend to exhibit better financial performance. Moreover, a greater proportion of debt ratio and tangible assets was associated with increased returns on assets. Conversely, a lower proportion of equity, firm size, and liquidity was linked to decreased returns on assets for insurance companies in Nepal. The study enhances understanding of the impacts of firm-specific factors on financial performance and provides empirical evidence that total debt ratio, equity to total assets ratio, leverage, firm size, liquidity, and tangibility are significant determinants of Nepal's insurance companies' financial performance. Notably, non-life insurance companies demonstrated stronger financial performance in terms of earnings per share and return on assets. The study carries practical implications for insurance companies and regulatory bodies, suggesting that companies seeking to improve their financial performance in Nepal should consider increasing their leverage and long-term investments while decreasing the proportions of equity, firm size, and liquidity.

Pradhan and Dahal (2021) demonstrated that insurance premiums have a positive impact on both return on assets and earnings per share, indicating that an increase in premiums results in higher returns on assets and earnings per share. Similarly, they found that firm size positively influences return on assets and earnings per share, suggesting that larger firms tend to have higher returns on assets and earnings per share. Conversely, the current ratio was found to have a negative impact on return on assets, indicating that an increase in the current ratio leads to a decrease in return on assets. Likewise, the solvency ratio was found to negatively impact return on assets, signifying that an increase in the solvency ratio results in a decrease in return on assets. However, the current ratio was found to positively impact earnings per share, implying that an increase in the current ratio leads to an increase in earnings per share. Similarly, the solvency ratio was found to have a positive impact on earnings per share, indicating that a higher solvency ratio corresponds to higher earnings per share. Additionally, the study concluded that insurance premiums, followed by the current ratio and firm size, are the most influential factors

explaining liquidity management and the financial performance of Nepalese insurance companies.

Sah and Magar (2021) investigated the determinants of profitability within the Nepalese insurance sector, focusing on return on assets and return on equity as the dependent variables. Their analysis encompassed various independent variables including liquidity, tangibility, premium growth, firm age, and firm size. Drawing from secondary data sourced from 21 insurance companies, comprising a total of 168 observations spanning from 2011/12 to 2018/19, data were collected from reports published by Beema Samiti and annual reports of selected insurance companies. Regression models were employed to assess the factors influencing the profitability of Nepalese insurance companies. The findings revealed that firm size exerts a positive impact on both return on assets and return on equity, suggesting that larger firms tend to experience higher returns in both aspects. Similarly, premium growth was found to positively influence both return on assets and return on equity, indicating that higher rates of premium growth correlate with increased returns in these areas. Furthermore, firm age demonstrated a positive impact on return on assets, implying that as firms mature, they tend to achieve higher returns on assets and equity. Tangibility of assets was also positively associated with returns on assets and equity, suggesting that greater tangibility leads to enhanced returns. Conversely, the liquidity ratio exhibited a negative impact on both return on assets and return on equity, indicating that higher liquidity ratios are associated with reduced returns in these metrics.

Ahmeti and Iseni (2022) define profitability as the capacity of a company to generate earnings from its business operations, reflecting the efficiency with which management utilizes available resources to generate profit. Their study explores the impact of specific company factors—such as liquidity, company size, company age, tangible assets, leverage, company capital, and growth of the company—on profitability, as measured by return on assets (ROA) and net profit margin (NPM). The sample comprises eleven insurance companies observed over the period from 2015 to 2020. Regression analysis reveals that company size, leverage, and age significantly influence ROA, whereas for NPM in insurance companies in Kosovo, the size of the company and firm growth demonstrate significant effects.

Bogamuwa (2022) outlines the aim of this research, which is to examine the factors influencing the financial performance of Sri Lankan insurance companies operating during the period from 2016 to 2020. A significant correlation is observed between Return on Equity (ROE) and company size, highlighting its importance. The study suggests that larger insurance companies tend to be more profitable compared to micro insurance firms, emphasizing the significance of growth strategies for insurance company managers. Furthermore, the research indicates that Market Share has a notable and positive effect on the Return on Assets (ROA) of insurance companies. Companies with a higher market share are shown to achieve better financial performance than those with a lower market share, underscoring the importance for insurers to focus on enhancing their market share. Additionally, Financial Leverage and Market Share are found to have a significant and positive impact on the Return on Equity (ROE) of insurance companies. Thus, insurance company managers are advised to carefully manage financial leverage in order to maintain a balance between financial performance and leverage.

Debala et al. (2022) recognize profitability as a pivotal factor shaping a company's operational endeavors, with improvements in financial performance playing a crucial role in fostering economic development. Their study aims to delve into the determinants of profitability within the Ethiopian insurance sector, focusing specifically on non-life insurance companies. Data sourced from the audited financial statements of twelve insurers over a six-year period (2011-2016), comprising a total of 72 observations, is analyzed through panel data using Ordinary Least-Square (OLS) regression. The findings of the panel least square regression analysis reveal that the industry concentration ratio and leverage exhibit statistically significant and positive impacts on the profitability of non-life insurance companies. Conversely, factors such as diversification, underwriting risk, and reinsurance dependence display a negative and statistically significant relationship with profitability. However, there is no evidence supporting the influence of firm liquidity, real GDP growth rate, and inflation on the profitability of non-life insurance companies in Ethiopia. The study underscores the importance of addressing firm and industry-related variables, particularly through the adoption of robust risk management strategies and enhanced internal controls, to achieve sustained profitability in the non-life insurance sector.

Haddad (2024) delved into the pivotal concern of profitability within global entities, highlighting the persistent efforts of management to continually reassess financial standings and adapt strategic plans to maximize profits. This research specifically scrutinized the factors influencing profitability in Jordanian industrial companies. To accomplish this, the researcher analyzed data from 30 industrial firms listed on the Amman Stock Exchange (ASE) spanning the period from 2016 to 2020. Secondary data, drawn from published financial statements and annual reports over a five-year timeframe, provided the foundation for the study. Various factors affecting profitability were examined as independent variables, including Earnings Per Share (EPS), operating cash flow, company age, and company size, all measured against Return on Assets (ROA). Statistical tests, such as multicollinearity regression, were employed to test hypotheses. The findings revealed significant impacts of EPS, operating cash flow, and company size on the profitability, as indicated by ROA, of industrial firms listed on the ASE. The size of a company emerged as a critical factor influencing its competitiveness, with smaller businesses potentially facing greater challenges from larger competitors. Monitoring cash flow and earnings per share was identified as crucial for maintaining profitability. Future research avenues could explore integrated reporting for industrial companies, incorporating additional factors such as environmental, social, and economic aspects to further elucidate their impact on profitability.

Table 1

*Summary of Empirical Review*

S. N	Author(s)	Variables	Methodology	Findings
1	Ayele (2012)	ROA, Firm Age & Size, Tangibility Assets, Volume of Capital, Leverage	Descriptive Statistics, correlation analysis & regression analysis	There is significant relationship between ROA & Firm Age & Size, Volume of Capital & insignificant between
2	Burca and Batrinca (2014)	ROA, LEV, SIZE, AGE, Equity	Descriptive Statistics, correlation analysis & regression	The study concluded that the underwriting risk has a negative effect on financial performance. It implies that taking an excessive

			analysis	underwriting risk can affect the company's stability through higher expenses. The study also showed that there is a positive linkage between firm size and the insurers' financial performance.
3	Gebremariyam (2014).	ROA, ROE, PG, TA, LIQ, AF,FS	Hypothesis testing, correlation and regression analysis	The result shows that there is negative relation between profitability and liquidity.
4	Ngwili (2014)	ROA, LIQ, LEV, DEBT, SIZE, AGE	Descriptive statistics, correlation analysis and regression analysis	It can be interpreted that the ability of insurance companies to pay liabilities has a positive effect on their profitability. Similarly, the results showed a positive relationship of firm size with ROA and the result is consistent. Firm age & size of the firm also had a positive relationship with ROA of the company.
5	Kaya (2015)	ROA, PG, TA, AF, Liquidity, Firm Size	Descriptive Statistics, correlation analysis & regression analysis	A study conducted on the profitability of non-life insurance companies in Turkey depicted a positive relationship between firm size and profitability. However, the study found that the age of the firm is negatively related to its profitability. It has also

				concluded that the profitability and financial performance of firms are negatively influenced by their leverage.
6	Kripa and Ajasllari (2016)	ROA, Company Size, Volume of Capital, Liabilities, Fixed Assets, Liquidity, Growth Rate	Descriptive Statistics & correlation analysis.	There is positive relationship between ROA & Company Size, Volume of Capital, Fixed assets and Growth rate and has negative relationship with Liabilities and Liquidity.
7	Berhe and Kaur (2017)	ROA, Liquidity ratio, Leverage ratio, Firm Size, Loss ratio, Market Share, Inflation & GDP growth rate	Descriptive statistics, correlation analysis and regression analysis.	Results of the analysis indicated that size of insurance, capital adequacy, liquidity ratio and the real growth rate of GDP were the key determinants that significantly affect the profitability of insurance companies. However, factors such as leverage ratio, loss ratio, market share and annual inflation rate were found to have insignificant impact on profitability.
8	Guendouz and Ouassaf (2018)	ROA, Firm Age, Assets of Shareholders, Assets of Policyholders, Loss ratio	Descriptive Statistics, correlation analysis & regression analysis	There is a negative relation between loss ratio and profitability of TAWUNIA and Union Commercial, a negative relation between the Rate of Retention and Midgulf Profitability, and a positive contribution of the

				written premium growth rate into Union Commercial Profitability.
9	Islam and Akter (2018)	ROA, Liquidity, Reinsurance Dependence, Growth of Premium, Loss ratio, Leverage, Expense ratio	Quantitative Analysis with Descriptive Statistics, correlation analysis & regression analysis	The study can be concluded that ROA is positively affected by liquidity and reinsurance dependence while it is negatively affected by premium growth and leverage
10	Veronica and Ababio (2018)	Liquidity, Profitability, Growth rate, Firm size, risk, Age, Inflation, GDP	Panel Data Regression Analysis	The findings show that there is a positive and statistically significant relationship between profitability and debt. The study concluded that profitable insurance companies depend on long term debt. It also identified a positive relationship between profitability and the capital structure of the companies.
11	Zainudin, Mahdzan and Leong (2018)	ROA, Firm Size, Volume of Capital, Tangibility Assets, Premium Growth, Liquidity, Underwriting Risk	Descriptive statistics, correlation analysis and regression analysis	The study findings illustrated that size, capital and underwriting risk are significantly related to determining the ROA of Asian insurance companies.
12	Pjanić, Milenković, Kalaš and Mirović (2018)	ROA, Assets Growth, Premium Growth, Liquidity Ratio, Debt Ratio, Operating Cost, Underwriting risk,	Descriptive Statistics, correlation analysis & regression analysis	The analysis confirms the starting hypothesis that the statistically significant impact on the profitability of non-life insurance companies is achieved by

		Financial Leverage		the increase in premiums, the debt ratio, operating costs and revenue sharing. Other variables, such as company size, company growth, liquidity, underwriting risk or financial leverage, do not have a statistically significant impact on the profitability of non-life insurance companies.
13	Sharma and Kumar (2019)	Market share, profit margin, return on assets	Quantitative analysis using regression models on a dataset of 50 insurance companies over 10 years.	Market share has a significant positive effect on profitability, indicating economies of scale in the Nepalese insurance sector.
14	Mishra and Pradhan (2019)	NPM, Firm Size, Leverage, Liquidity Ratio	Correlation and Regression Analysis	The study showed that liquidity, leverage, company size and management competence index have a significant positive effect on financial performance of the insurers.
15	Poudel (2019)	ROA, ROE, PG, TA, LIQ, and AF	Descriptive statistics, correlation analysis and regression analysis	It shows the PG and TA are positively associated with ROA while AF is negatively associated with ROA.
16	Hussanie and Joo (2019)	ROA, Liquidity, Loss ratio,	Descriptive Statistics,	Its findings show that the study also depicts an

		Investment Performance, Operating Margin	correlation analysis & regression analysis	insignificant relationship between the size of the company and its profitability. Thus, debt has a negative, and size and age have a positive yet insignificant influence on determining the profitability of non-life insurance companies in Nepal.
17	Azmi, Irawan and Sasongko, (2020)	ROA, Firm Size, Liquidity Ratio, Equity Growth, Premium Growth, Return on Investment, Financial Leverage,	Panel Data Regression analysis	This study led to the conclusion that internal factors such as Firm Size, Liquidity Ratio, Equity Growth, Underwriting Result, Return on Investment, Input Cost, Claim Ratio, and Technical Ratio and economic macro factors such as Economic Growth Rates and BI Rates have a significant effect on Return on Asset (ROA). Variable Firm Size, Liquidity Ratio, Equity Growth, Underwriting Result, Return on Investment, and BI Rates have a positive effect on ROA. Whereas Input Cost, Claim Ratio, Technical Ratio and Economic Growth Rates negatively affect ROA.
18	Bhattarai	ROE, Expenses	Descriptive	There is significant

	(2020)	Ratio, Financial Leverage, Size of the company	Statistics, correlation analysis & regression analysis	relationship between ROE & expenses ratio, financial leverage & size of the company.
19	Dahal, Timalsena, Sah, and P. Sah (2020)	ROA, EPS, Insurance Premium, Firm Size,	Descriptive Statistics, correlation analysis & regression analysis	The Result showed that insurance premium and firm size has positive impact on ROA and EPS.
20	Hamal (2020)	ROA, Firm Age, Liquidity, Total Debt, Leverage, Firm Size	Descriptive Statistics, Pearson's Correlation & regression analysis	There is positive relationship between ROA & Firm Age, Liquidity, Total Debt, Firm Size & negative relationship between ROA & Leverage ratio.
21	Hamal (2020)	ROA, ROE, Firm Size, Liquidity, Short term Debt, Long term investment, Firm Age	Descriptive Statistics, correlation analysis & regression analysis	The study concludes that the most influencing factors for the financial performance in Nepalese life insurance companies are firm size and long-term investment. Along the same line, over-investment in long-term investments should be critically considered as it can have adverse effect on future profitability of life insurance companies.
22	Jaishi (2020)	ROA, EPS, TDR, ETR, Firm Size, Liquidity ratio, Tangibility assets	Descriptive Statistics, correlation analysis &	There is a positive impact of total debt ratio and assets tangibility on return on assets and negative impact

			regression analysis	on equity, firm size and liquidity ratio. Beta coefficients are negative for ETA, SIZE, and liquidity on earning per share and are positive on total debt ratio and tangibility assets.
23	Maharjan and Dutta (2020)	ROA, ROE, firm size, firm age, tangibility of assets, leverage ratio, premium growth	Quantitative correlational study using financial data from the past 8 years for 30 insurance companies.	High leverage ratios were associated with lower profitability. Tangibility of assets had a positive impact on ROE but not on ROA. Premium growth emerged as a key profitability driver.
24	Risal (2020)	ROA, Leverage, Liquidity, Underwriting Risk, Size	Descriptive & Analytical Research design, correlation analysis and regression analysis	There is significant relationship between ROA & corporate size, Liquidity & insignificant relationship between ROA & leverage, underwriting risk of financial performance of non-life insurance companies.
25	Jaishi and Poudel (2021)	ROA, EPS, Leverage, Liquidity, Tangibility Assets, Equity to Total Assets	Descriptive Statistics, correlation analysis & regression analysis	The major conclusion of this study is that the insurance companies having a high debt ratio have better financial performance. There is a greater leverage effect to increase financial performance in the insurance companies of Nepal. An increase in the

				debt ratio and tangibility increases return on assets. The impact of debt ratio and tangibility on earning per share is positive and there is a negative impact of equity, size and liquidity ratio on earning per share.
26	Koirala & Luitel (2021)	ROA, ROE, firm size, firm age, tangibility of assets, leverage ratio, premium growth	Regression analysis using a dataset of financial and non-financial metrics from 25 insurers.	Tangibility of assets was positively associated with ROE, suggesting that physical assets remain a key factor in stakeholder confidence and profitability. Firm size also positively influenced profitability metrics.
27	Pradhan and Dahal (2021)	ROA, Insurance Premium, Firm Size, EPS, Current Ratio, Solvency Ratio	Descriptive statistics, correlation analysis and regression analysis.	The study shows that insurance premium, firm size, current ratio and solvency ratio have positive impact on earnings per share. Likewise, insurance premium, firm size has positive impact with return on assets. However, current ratio, and solvency ratio have negative impact with return on assets.
28	Sah and Magar, (2021)	ROA & ROE, Liquidity, Tangibility Assets, Premium Growth, Firm Size & Age	Descriptive Statistics, correlation analysis & regression analysis	The result shows that there is positive impact between ROA & ROE with TA, Firm Size, Firm Age & PG & both ROA & ROE has negative impact on Liquidity ratio

29	Ahmeti and Iseni (2022)	ROA, Net Profit Margin, Liquidity, Leverage, Firm Growth, Company Capital, Firm Age, Firm Size, Tangibility Assets	Descriptive statistics, correlation analysis and regression analysis	In terms of econometric results, they tell us that the variables that have an impact on profitability of insurance companies in Kosovo are: leverage, company age, company growth, and the size of company.
30	Debala, Bhat and Khan (2022)	ROA, Leverage, Liquidity, Inflation, GDP, Underwriting risk, diversification, Reinsurance Dependence	Descriptive Statistics, correlation analysis & regression analysis	Findings of this study indicated that, variables of firm financial leverage, reinsurance dependency, underwriting risk, diversification and industry concentration ratio were significantly related to the profitability of the non-life insurance business in Ethiopia.
31	Shahi and Agnihotri (2022)	ROA, Tangibility, Liquidity & Size of the company	Descriptive Statistics, correlation analysis & regression analysis	The results of the study indicated that the combination of liquidity, tangibility, and business scale in terms of number of agents in all states had an impact on life insurance company profitability in India. These suggests that life insurance companies in India should offer diversified range of insurance covers to enhance their profitability.

32	Thapa and Bhandari (2022)	ROA, ROE, firm size, firm age, tangibility of assets, leverage ratio, premium growth	Quantitative analysis using a panel data model on a dataset from 35 insurance companies over a period of 10 years.	Firm size, tangibility of assets, and premium growth were found to have a positive impact on profitability (ROA and ROE), while high leverage ratios negatively affected profitability. Firm age showed no significant effect.
33	Bogamuwa (2022)	ROA, ROE, Firm Size, GWP Growth, Financial Leverage, Age of the company, Market Share, Loss ratio	Descriptive statistics, correlation analysis and regression analysis	The findings show that a correlation between ROE and the size of a company shows its significance, the Market Share has a significant and positive impact on insurance company's Return on Assets (ROA) & the Financial Leverage and Market Share have a significant and positive impact on insurance company's Return on Equity (ROE)
34	Haddad (2024)	ROA, EPS, Operating Cash Flow, Age of the company, Size	Descriptive Statistics, correlation analysis, multicollinearity & regression analysis	EPS, Operating Cash Flow & Size of the company affects the profitability measured by ROA however age of the company doesn't affect it.

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## 2.4 Research Gap

Insurance plays a crucial role in the financial sector, yet research attention towards this sector has been relatively limited compared to the banking sector. Despite being an

integral part of the financial system, the insurance sector in Nepal has received less priority from researchers, resulting in a scarcity of literature in this context. While some studies have explored the profitability of insurance companies in Nepal, there has been a notable absence of research focusing on the factors influencing their profitability. Upon reviewing previous studies, it was observed that researchers like Poudel (2019) and Mishra and Pradhan (2019) have examined common factors in their investigations. Mishra and Pradhan's (2019) study, for instance, highlighted that management competence and company size are the most significant factors impacting profitability in Nepal. Similarly, age was identified as a factor with a positive but relatively minor influence on insurance company profitability. Interestingly, during the review of previous theses, it was noted that no research had been conducted on the sample companies selected for this study, indicating a unique research gap that the current study aims to address.

The existing studies have contributed to the ongoing uncertainty surrounding the relationship between various factors and their influence on the profitability of insurance companies in Nepal. Many theories underlying these studies often assume the existence of perfect markets, a scenario seldom encountered in reality. Furthermore, it's notable that the majority of research has been conducted in developed markets, leaving a gap in understanding the dynamics within emerging markets like Nepal. This research endeavors to address these gaps by delving into the specific context of Nepal's insurance sector, aiming to provide insights that can help clarify the relationship between different factors and profitability within this market.

The majority of the aforementioned studies primarily employ technical and statistical methods such as regression analysis and correlation coefficients for their analytical purposes. Only a limited number of studies utilize fundamental analysis tools for their research endeavors. Furthermore, there is a notable lack of focus on certain key factors such as premium growth, tangible assets, and liquidity, which have been identified as significant influencers of insurance company profitability. Hence, this study seeks to fill this gap by conducting an analysis of these influential factors and their impact on insurance company profitability.

This study will serve as a valuable resource for finance students, providing them with insights into the subject matter. Additionally, it will enable insurance companies to understand their profitability standing, as well as the expectations of general stakeholders and shareholders regarding the retention or distribution of earnings, irrespective of legal provisions. The significance of this research lies in its potential to address a critical gap in the existing literature. The findings of this study can contribute to enriching the current body of knowledge and serve as a foundation for future research endeavors in this area.s

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter aims to present a basic framework of the research work. This chapter contains the research design, sample size, data collection procedure, data processing tools and techniques and variables under study that ensure validity, reliability and ethical standards in the study. This research tries to perform a well- designed quantitative research in a very clear and direct way using both financial and statistical tools.

#### **3.1 Research Design**

In this study, descriptive and casual comparative research design have been adopted to analyze the factors affecting profitability of Nepalese insurance companies. As descriptive research design helps in identification of variables, quantitative analysis, comparative analysis, data availability and practical implications as well as casual comparative also known as ex post facto research design helps in investigation of casual relationships, historical analysis and risk assessment and management.

#### **3.2 Population, Sample and Sampling Method**

As of November 2023, there are 35 insurance companies including life, non-life, micro and re-insurance operating in Nepal. All the listed insurance companies in the country are the target population. Among all the insurance companies six insurance companies are selected as a sample that are both life and non-life insurance companies that are Neco Insurance Company Limited (NIL), Shikhar Insurance Company Limited (SICL), NLG Insurance Company Limited (NLG), National Life Insurance Company Limited (NLICL), Life Insurance Corporation Nepal Limited (LICN) and Asian Life Insurance Company Limited (ALICL). Based on purposive sampling method, sample insurance are selected including three non-life insurance and three life insurance companies on the basis of profit earning as per 2023 A.D.

#### **3.3 Data Type and Sources**

This study is based on the secondary data. Data for this research was collected from annual published annual reports of selected insurance companies i.e. NIL, SICL, NLG, NLICL, LICN and ALICL. The data was taken over a period of ten years (2070/71 to 2079/80). The

data was collected from secondary sources such as published financial reports, different previous studies and related bulletins, reports and periodically published from various government bodies. The source of data is completely secondary hence, intervention in the research was negligible from the side of researcher. The independent variable for this research was factors affecting profitability and the dependent variable was profitability of selected insurance companies.

### 3.4 Data Analysis Tools

Data can be analyzed by various tools and techniques which are financial tool, statistical tool, accounting tool, mathematical tools etc. These tools and methods are applied based on the nature of the data, nature of the variable used etc. Mainly, followings are the tools and methods applied for analyzing the data for this study;

#### 3.4.1 Arithmetic Mean

The arithmetic mean, a commonly utilized metric for summarizing data, involves calculating the sum of all numerical values within a dataset and dividing it by the total number of observations. In this research, the average values of several indicators, including the current ratio, current deposit ratio, return on assets, net profit margin, and others, were computed as part of the analysis. It can be calculated as followings;

$$\text{Mean } (\bar{X}) = \frac{X_1 + X_2 + X_3 + X_4 \dots \dots \dots + X_n}{n} \text{ or, } \bar{X} = \frac{\Sigma X}{n}$$

Where:

$\bar{X}$  – Arithmetic Mean

$X_i$  – Set of Observation

$\Sigma X$  – Sum of Values of all items  $n$  – Number of item/ observations

#### 3.4.2 Standard Deviation

Dispersion refers to the degree of spread or variability of data points around the central tendency in a dataset. Standard deviation quantifies this spread by measuring the absolute dispersion. A higher standard deviation indicates greater dispersion, signifying a wider range of values from the average. Conversely, smaller standard deviations suggest a more uniform distribution of observations and homogeneity within the dataset.

In this study, standard deviation has been calculated for current ratio, current deposit ratio, return on asset, net profit margin etc. It can be expressed as following formula;

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}}$$

### 3.4.3 Coefficient of Variation

The coefficient of variation (CV) serves as another valuable metric for assessing risk. It's calculated by dividing the standard deviation by the expected return, representing risk per unit of return. This measure becomes particularly useful when comparing alternatives with different expected returns. If investors expect returns to rise with increased risk, the coefficient of variation offers a concise indication of the relative balance between expected return and risk.

$$CV = \frac{\sigma}{\bar{X}}$$

Where:

CV = Coefficient of Variation

$\bar{X}$  = Mean

$\sigma$  = Standard Deviation

### 3.4.4 Correlation Analysis

Correlational analysis is the fitting statistical method for quantitatively assessing the relationship between two or more variables. It quantifies the extent of the relationship between variables, typically represented by the square root of the coefficient of multiple determination. Correlation values range from +1 to -1, indicating positive or negative correlations respectively. In this study, a simple correlation approach has been employed to calculate the correlation between the Marginal Propensity to Save (MPS) and various financial indicators.

Correlation coefficient can be defined by following formula;

$$\text{Correlation Coefficient (r)} = \frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

Where:

r – Correlation coefficient

n – Number of observations

$\Sigma XY$  – Sum of product of two series.

$\Sigma X^2$  – Sum of squared in X series

$\Sigma Y^2$  – Sum of squared in Y series

x – Variable x

y – Variable y

### 3.4.5 Coefficient of Determination ( $R^2$ )

The coefficient of determination gauges the extent of linear correlation between two variables, one serving as the independent variable and the other as the dependent variable. Essentially,  $R$  quantifies the proportion of total variation in the dependent variable. Its value falls within the range of zero to one, with a value of one signifying that all data points in the scatterplot precisely align with the regression line, indicating no unexpected variation.

The coefficient of determination can be defined by following formula;

$$R^2 = \frac{b\Sigma xy}{\Sigma y^2}$$

Where:

$R^2$  – Coefficient of determination

b – Beta coefficient

x – Variable x

y – Variable y

### 3.4.6 Regression Analysis

Regression analysis helps us to know the relative movement in the variables. It helps to estimate the impact of causing independent variable on dependent variable.

Under this study, Regression analysis of the following variable have been calculated and interpreted;

$$Y = f(X1, X2, X3, X4, X5, X6)$$

Where:

Y – Return on asset and Return on Equity

X1 – Firm Age

X2 – Liquidity

X3 – Tangibility Assets

X4 – Premium Growth

X5 – Leverage Ratio

X6 – Firm Size

Thus, econometric model:  $Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e$

Where:

Y – Return on asset, Return on Equity

$\alpha_0$  – Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  &  $\beta_6$  – Coefficients of variables

X1 – Firm Age

X2 – Liquidity

X3 – Tangibility Assets

X4 – Premium Growth

X5 – Leverage Ratio

X6 – Firm Size

e – error term

#### 3.4.6.1 Regression Constant (a)

The constant value, also known as the intercept of the model, represents the average level of the dependent variable when the independent variable is zero. Put differently, the constant 'a' signifies the mean or average impact on the dependent variable of all the variables not included in the model. In this research, the regression constant is computed for the chosen dependent and independent variables outlined in the model.

### **3.4.6.2 Regression Coefficients ( $b_1, b_2, b_3, \dots, b_n$ )**

In a regression model, each independent variable's regression coefficient signifies the incremental association between that variable and the dependent variable, while keeping all other independent variables constant. Essentially, these coefficients elucidate how alterations in independent variables influence the estimated value of the dependent variable. They serve as numerical constants that dictate the extent of change in the dependent variable for every unit alteration in the independent variables, akin to determining the slope of the line in the model.

### **3.4.6.3 Standard Error of Estimates (SEE)**

The utilization of regression equations doesn't lead to perfect prediction due to inherent limitations. The standard error of an estimate (SEE) serves as a crucial metric for evaluating the reliability of these equations. It gauges the variability of observed data points around the regression line, essentially illustrating the degree to which actual values deviate from their predicted counterparts on this line. A smaller SEE indicates a closer alignment of data points with the regression line, thus improving the accuracy of estimates derived from the equation. When SEE approaches zero, variability around the line diminishes, resulting in a perfect correlation. Consequently, SEE enables an assessment of the regression line's effectiveness in encapsulating the average relationship between two sets of data.

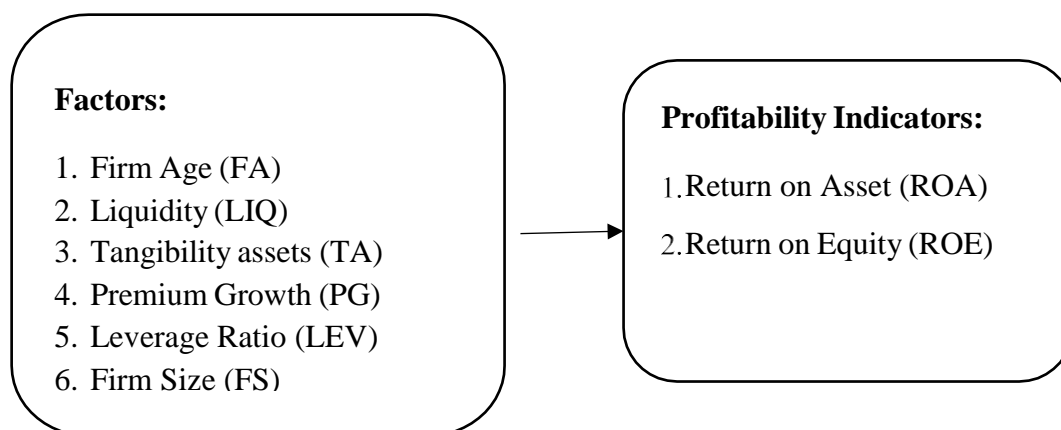
## **3.5 Conceptual Framework and Definition of Variable**

A conceptual framework serves as an analytical instrument employed to delineate conceptual distinctions or structure ideas. It establishes the theoretical context within which a study unfolds, elucidating the interplay between dependent and independent variables and how one variable influences the other. By providing a framework for understanding these relationships, it facilitates the organization and interpretation of data, guiding the entire trajectory of the study.

After reviewing the literature, the following conceptual model is formulated by the researcher under the basis of the research under taken by Sah & Magar (2021).

Independent Variables

Dependent Variables



Source: Sah & Magar, (2021)

Figure 1 *Conceptual Framework*

### **Firm Age (FA)**

The age of a company, often measured by the number of years since its incorporation, is a focal point in numerous studies investigating its impact on profitability. Research by Ilaboya and Ohiokha (2016) as well as Kramaric et al. (2017) consistently affirm a positive and noteworthy correlation between firm age and profitability. Similarly, Poudel's (2019) examination of insurance companies in Nepal arrived at a parallel conclusion, further emphasizing the beneficial influence of firm age on profitability.

*Firm Age (FA) = Age of the company is measured as natural logarithm of the number of years from the date of establishment.*

### **Liquidity (LIQ)**

Liquidity, as defined by Ghimire (2013), pertains to the ease with which an asset or security can be traded in the market at its true value. Within the realm of insurance companies, liquidity extends to the ability of insurers to meet financial obligations, encompassing operational expenses and payouts for insurance claims in a timely manner. Studies conducted by Chen, J., Chen, M., Liao, W., & Chen, T. (2009) and Ngwili (2014) have substantiated a positive correlation between liquidity ratios and the profitability of insurance companies.

Henceforth, the following hypothesis has been developed for this study:

$$\text{Liquidity (LIQ)} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

### **Tangibility assets (TA)**

Pradhan et al. (2020) conducted a study on Nepalese insurance companies and discovered a positive influence of tangible assets on their performance. Similarly, Mehari and Aemiro (2013) delved into the factors specific to firms that affect the performance of insurance companies in Ethiopia, revealing a positive association between tangibility and profitability. Cekrezi (2013) also observed a significant positive impact of tangibility on firm profitability. Furthermore, Bhutta and Hasan (2013) examined the profitability of the food sector in Pakistan, concluding that tangibility, firm growth, and inflation are positively linked to profitability. Kodongo et al. (2015) explored the financial performance of listed firms in Kenya, finding that asset tangibility, sales growth, and firm size are crucial determinants of profitability.

### *Tangibility assets (TA)*

= *Tangibility assets is measured as the total fixed assets to total assets*

### **Premium growth (PG)**

In their investigation of Nepalese insurance companies, Dahal et al. (2020) utilized a dynamic panel model with a GMM estimator to scrutinize liquidity management and financial performance. Their findings revealed a positive impact of insurance premium on return on assets and earnings per share. Similarly, Pervan et al. (2012) demonstrated a positive correlation between premium growth rate and firm profitability. Moreover, Akotey et al. (2013) assessed the financial performance of life insurance firms in Ghana, highlighting a favorable relationship between gross premiums and insurance profitability.

### *Premium growth (PG)*

= *Premium growth is measured by the % growth of gross written premiums*

### **Leverage Ratio (LEV)**

Leverage ratios, also known as capital structure ratios, provide valuable insights into a company's long-term financial health. These ratios offer a glimpse into the firm's ability to meet its long-term debt obligations. Stakeholders such as owners, creditors, and external parties are keenly interested in the company's capacity to service its debt. High leverage indicates that the company relies heavily on debt financing, which can pose challenges in raising funds both from creditors and owners. Owners may see advantages in leveraging the firm through debt, but this approach can lead to a loss of control over financial resources. In Nepal Insurance company's haven't right to collect the fund them from debt so the leverage ratio is calculated as follows:

$$\text{Leverage Ratio} = \text{Current Liabilities} / \text{Total Assets}$$

### **Firm Size (FS)**

Upadhyay and Upadhyaya (2020) discovered a positive impact of firm size on return on assets. Similarly, Poudel (2019) established a positive relationship between size and efficiency of banks in Nepal. Moreover, Budhathoki et al. (2020) revealed a positive influence of bank size on return on assets. However, Browne et al. (2001) found that company size positively correlates with the financial performance of life insurance firms. Likewise, Dey et al. (2015) identified a positive relationship between financial performance and the size of insurance companies in India. Additionally, Cooke (1992) examined the impact of size, stock market listing, and industry type on disclosure in the annual reports of Japanese listed corporations, highlighting a significant and positive association between company size and performance.

$$\text{Firm Size (FS)} = \text{Total Assets of insurance companies}$$

### **Return on Assets (ROA)**

The return on assets (ROA), also known as the firm's return on total assets, serves as a metric to assess the overall efficiency of management in generating profits with the assets at its disposal. A higher ROA signifies superior operational performance, while a lower one suggests the opposite. This ratio essentially evaluates the effectiveness of utilizing the total funds provided by both owners and creditors. It is calculated as under:

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$

**Return on Equity (ROE)**

The return on equity (ROE) is a financial metric that evaluates the return on the investment made by the owners in the firm. This investment comprises equity capital, which encompasses common stock, paid-in capital, and retained earnings. A higher ROE indicates a more favorable return for the owners, reflecting the firm's ability to generate profits from the owners' equity investment. It is calculated as under:

$$ROE = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

## **CHAPTER IV**

### **RESULTS AND FINDINGS**

This chapter is the main body part of this study. The basic objective of this study is to observe and analyze factor affecting profitability position of Neco, Shikhar, NLG, National Life, Life Insurance Corporation Nepal Limited and Asian Life Insurance Company Ltd. The result in this study has been done through the help of financial statements of the year from FY 2070/71 to FY2079/80 B.S. Data are presented in the form of tabular and diagrammatic form and are analyzed with help of widely accepted tools of financial ratios. Moreover, statistical tools such as, average mean, standard deviation, coefficient of variation, correlation coefficient, and regression analysis have been used to analyze the data. The profitability of an insurance company is of paramount importance for several reasons, reflecting its financial health, sustainability, and ability to fulfill its obligations to policyholders. This chapter has four sections. The first section analyzes on profitability position that shows descriptive analysis of profitability indicators. Similarly, the second section is correlation analysis that determine the association between the variable, the third section defines regression analysis which is useful to identify the degree of association among variable and the fourth section represents discussion that analyzes and interprets the result of the study.

#### **4.1 Analysis of Profitability Position**

Profitability of the insurance companies can be measured by the descriptive statistics like mean, median, standard deviation, range etc. Here, range, mean, and standard deviation are applied to study the profitability position. Table 2–9 represents the descriptive analysis of profitability indicators.

Table 2

*Descriptive Statistics: ROA*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	5.25	12.71	8.8790	2.65812	29.937
SICL	4.22	11.79	8.6290	2.43730	28.246
NIL	4.69	9.39	8.1210	1.55383	19.133
NLICL	1.05	4.46	1.9670	.94725	48.157
LICN	.36	2.81	1.1620	.73889	63.587
ALICL	-.21	3.06	1.0450	.85210	81.541

*Sources: SPSS based on data given on Appendix*

Table 2 represents the descriptive statistics for insurance company based on return on asset (ROA). The mean value of ROA for NLG is 8.879 in average, standard deviation 2.65812 deviated from mean and which shows volatility with 29.937 % C.V ranges from 5.25 to 12.71. Similarly, mean for SICL, NIL, NLICL, LICN and ALICL are 8.6290, 8.1210, 1.9670, 1.1620 and 1.0450 is deviated by 2.43730, 1.55383, 0.94725, 0.73889 and 0.85210 which shows volatility with 28.246 %, 19.133 %, 48.157 %, 63.587 % and 81.541 % C.V. Similarly, ROA of NLICL is highly volatile with 48.157 % C.V and ROA of NIL is least volatile with 19.133 % C.V.

Table 3

*Descriptive Statistics: ROE*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	7.92	29.09	16.8950	7.17207	42.451
SICL	6.07	27.48	17.5760	6.76456	38.487
NIL	10.64	19.77	16.1150	2.46933	15.323
NLICL	1.14	4.85	2.1140	1.03438	48.930
LICN	.38	3.01	1.2410	.79477	64.042
ALICL	-.21	3.22	1.0910	.89489	82.025

*Sources: SPSS based on data given on Appendix*

Table 3 depicts the descriptive statistics for insurance company based on return on equity

(ROE). The mean value for NLG is 16.8950, standard deviation 7.17207 with 42.451 % C.V ranges from 7.92 to 29.09. This indicates mean for NLG study period is 16.8950 in average, which deviated mean by 7.17207 and shows volatility by 42.451 % C.V within the range of 7.92 to 29.09. Similarly, mean for SICL, NIL, NLICL, LICN and ALICL are 17.5760, 16.1150, 2.1140, 1.2410 and 1.0910 deviated by 6.76456, 2.469633, 1.03438, 0.79477 and 0.89489 which shows volatility with 28.246 %, 19.133 %, 48.157 %, 63.587 % and 81.541 % C.V. Similarly, ROE of ALICL is highly volatile with 82.025 % C.V and ROE of NIL is least volatile with 15.323 % C.V.

Table 4

*Descriptive Statistics: Firm Age*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	2.20	2.89	2.5780	0.23112	8.965
SICL	2.20	2.89	2.5780	0.23112	8.965
NIL	2.94	3.38	3.1710	0.14858	4.686
NLICL	2.08	2.83	2.4970	0.25073	10.041
LICN	2.56	3.10	2.8490	0.17929	6.293
ALICL	1.79	2.71	2.3110	0.30432	13.168

*Sources: SPSS based on data given on Appendix*

Table 4 portrays the descriptive statistics for insurance company based on firm age (FA). The mean value of FA for NLG is 2.5780, standard deviation 0.23112 with 8.965 % C.V ranges from 2.20 to 2.89. Similarly, mean value of FA for SICL, NIL, NLICL, LICN and ALICL are 2.5780, 3.1710, 2.4970, 2.8490 and 2.3110 is deviated by 0.23112, 0.14858, 0.25073, 0.17929 and 0.30432 which shows volatility with 8.965 %, 4.686 %, 10.041 %, 6.293 % and 13.168 % C.V. Similarly, FA of ALICL is highly volatile with 13.168 % C.V and FA of NIL is least volatile with 4.686 % C.V.

Table 5

*Descriptive Statistics: Leverage*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	29.05	56.98	44.2260	9.29759	21.023
SICL	31.71	68.92	50.4780	11.23552	22.258
NIL	42.61	61.55	49.7620	5.75152	11.558
NLICL	5.43	8.55	6.9390	1.15907	16.704
LICN	4.14	7.86	6.3260	1.40702	22.242
ALICL	2.44	5.70	3.8190	1.32565	34.712

*Sources: SPSS based on data given on Appendix*

Table 5 express the descriptive statistics for insurance company based on leverage (LEV). The mean value of LEV for NLG is 44.2260, standard deviation 9.29759 with 21.023 % C.V ranges from 29.05 to 56.98. Similarly, mean value of LEV for SICL, NIL, NLICL, LICN and ALICL are 50.4780, 49.7620, 6.9390, 6.3260 and 3.8190 is deviated by 11.23552, 5.75152, 1.15907, 1.40702 and 1.32565 which shows volatility with 22.258 %, 11.558 %, 16.704 %, 22.242 % and 34.712 % C.V. Similarly, LEV of ALICL is highly volatile with 10.041% C.V and LEV of NIL is least volatile with 11.558 % C.V.

Table 6

*Descriptive Statistics: Liquidity*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	1.43	2.93	1.9760	0.48305	24.446
SICL	1.04	2.38	1.6130	0.40664	25.210
NIL	1.28	1.92	1.6480	0.20676	12.546
NLICL	2.72	12.47	6.2180	3.75348	60.365
LICN	2.18	16.68	6.6610	5.37619	80.712
ALICL	1.35	31.34	7.6760	9.19587	119.800

*Sources: SPSS based on data given on Appendix*

Table 6 signifies descriptive statistics for insurance company based on liquidity (LIQ). The mean of LIQ for NLG is 1.9760, standard deviation 0.48305 with 24.446 % C.V ranges from 1.43 to 2.93. This indicates mean for NLG is 1.9760 in average, which shows deviated from mean by 0.48305 and which shows volatility with 24.446 % C.V within the range of 1.43 to 2.93. Similarly, mean value for SICL, NIL, NLICL, LICN and ALICL are 1.6130, 1.6480, 6.2180, 6.6610 and 7.6760 is deviated by 0.40664, 0.20676, 3.75348, 5.37619 and 9.19587 which shows volatility with 25.210 %, 12.546 %, 60.365 %, 80.712 % and 119.800 % C.V. Similarly, LIQ of ALICL is highly volatile with 119.800 % C.V and LIQ of NIL is least volatile with 12.546 % C.V.

Table 7

*Descriptive Statistics: Tangibility assets*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	14.74	19.35	16.5670	1.74429	10.529
SICL	16.39	26.31	22.3410	3.83817	17.180
NIL	12.92	25.73	18.9310	3.78838	20.011
NLICL	29.05	76.75	59.3370	20.41013	34.397
LICN	30.00	84.74	64.1610	19.67941	30.672
ALICL	22.20	92.54	74.9710	27.01857	36.039

*Sources: SPSS based on data given on Appendix*

Table 7 represents descriptive statistics for insurance company based on tangibility assets (TA). The mean of TA for NLG is 16.5670, standard deviation 1.74429 with 10.529 % C.V ranges from 14.74 to 19.35. Similarly, mean value for SICL, NIL, NLICL, LICN and ALICL are 22.3410, 18.9310, 59.3370, 64.1610 and 74.9710 is deviated by 3.83817, 3.78838, 20.41013, 19.67941 and 27.01857 which shows volatility with 17.180 %, 20.011%, 34.397 %, 30.672 % and 36.039 % C.V. Similarly, TA of ALICL is highly volatile with 36.039 % C.V and TA of NLG is least volatile with 10.529 % C.V.

Table 8

*Descriptive Statistics: Premium Growth*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	-7.89	28.04	5.7590	11.64833	202.263
SICL	-19.21	60.48	19.1230	25.08480	131.176
NIL	4.75	84.49	29.6410	27.71735	93.510
NLICL	5.80	35.37	22.5000	9.18625	40.828
LICN	6.39	30.59	22.5890	8.89988	39.399
ALICL	8.30	39.38	21.1240	9.68393	45.843

*Sources: SPSS based on data given on Appendix*

Table 8 illustrates descriptive statistics for insurance company based on premium growth (PG). The mean of PG for NLG is 5.7590, standard deviation 11.64833 with 202.263 % C.V ranges from -7.89 to 28.04. This indicates mean for NLG is 5.7590 in average, which shows deviated from mean by 11.64833 and which shows volatility with 202.263 % C.V within the range of -7.89 to 28.04. Similarly, mean value for SICL, NIL, NLICL, LICN and ALICL are 19.1230, 29.6410, 22.5000, 22.5890 and 21.1240 is deviated by 25.08480, 27.71735, 9.18625, 8.89988 and 9.68393 which shows volatility with 131.176 %, 93.510 %, 40.828 %, 39.399 % and 45.843 % C.V. Similarly, PG of NLG is highly volatile with 202.263 % C.V and PG of LICN is least volatile with 39.399 % C.V.

Table 9

*Descriptive Statistics: Firm Size*

<b>Insurance Companies</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>CV (%)</b>
NLG	20.92	22.11	21.6070	0.42269	1.956
SICL	20.88	22.60	21.8740	0.60454	2.764
NIL	20.25	22.63	21.5600	0.88092	4.086
NLICL	23.02	24.81	23.9040	0.62129	2.599
LICN	23.32	25.38	24.4270	0.71071	2.910
ALICL	22.13	24.34	23.2850	0.75621	3.248

*Sources: SPSS based on data given on Appendix*

Table 9 personifies descriptive statistics for insurance company based on firm size (FS). The mean of FS for NLG is 21.6070, standard deviation is 0.42269 with 1.956 % C.V ranges from 20.92 to 22.11. This indicates mean for NLG is 21.6070 in average, which shows deviated from mean by 0.42269 and which shows volatility with 1.956 % C.V within the range of 20.92 to 22.11. Similarly, mean value for SICL, NIL, NLICL, LICN and ALICL are 21.8740,

21.5600, 23.9040, 24.4270 and 23.2850 is deviated by 0.60454, 0.88092, 0.62129, 0.71071 and 0.75621 which shows volatility with 2.764 %, 4.086 %, 2.599 %, 2.910 % and 3.248 % C.V. Similarly, FS of NIL is highly volatile with 4.086 % C.V and FS of NLG is least volatile with 1.956 % C.V.

#### 4.2 Correlation Analysis

Correlation analysis is tool used to determine the association between/among the variable. In this study, correlation coefficient of various variable ROA, ROE, Firm Age (FA), Leverage (LEV), Liquidity (LIQ), Tangibility assets (TA), Premium Growth (PG), and Size of firm (FS) are calculated using SPSS software which are presented in table 10.

Table 10

##### *Correlation Coefficient*

		ROA	ROE	FA	LEV	LIQ	TA	PG	FS
<b>ROA</b>	Pearson Correlation	1							
	Sig. (2-tailed)								
<b>ROE</b>	Pearson Correlation	.973**	1						
	Sig. (2-tailed)	0.000							
<b>FA</b>	Pearson Correlation	0.138	0.092	1					
	Sig. (2-tailed)	0.293	0.483						
<b>LEV</b>	Pearson Correlation	.887**	.918**	.259*	1				
	Sig. (2-tailed)	0.000	0.000	0.046					
<b>LIQ</b>	Pearson Correlation	.633**	.709**	-0.160	.588**	1			
	Sig. (2-tailed)	0.000	0.000	0.222	0.000				
<b>TA</b>	Pearson Correlation	.653**	.577**	.364**	.705**	0.011	1		
	Sig. (2-tailed)	0.000	0.000	0.004	0.000	0.934			
<b>PG</b>	Pearson Correlation	0.013	0.064	0.041	-0.025	0.217	-.304*	1	
	Sig. (2-tailed)	0.922	0.626	0.758	0.851	0.096	0.018		
<b>FS</b>	Pearson Correlation	.653**	.604**	.586**	.747**	0.170	.791**	-0.148	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.193	0.000	0.259	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Sources: SPSS based on data given on Appendix

Table 10 shows the Karl Pearson correlation coefficient between dependent variable i.e., ROA and ROE and independent variables i.e., FA, LEV, LIQ, TA, PG, and FS. The correlation coefficient of FA, LEV, LIQ, TA, PG and FS with ROA are 0.138, 0.887, 0.633, 0.653, 0.013 and 0.653. It shows that ROA is positive and significant with LEV, LIQ, TA and FS at 0.05 level 2-tailed test. ROA is positive and insignificant with FA and PG. Similarly, the correlation coefficient of FA, LEV, LIQ, TA, PG and FS with ROE are 0.092, 0.918, 0.709, 0.577, 0.064 and 0.604. It shows that ROE is positive and significant with LEV, LIQ, TA and FS at 0.05 level 2-tailed test. ROE is positive and insignificant with FA and PG respectively.

This shows that there is positive correlation between LEV, LIQ, TA and FS with ROA and ROE and statistically significant at 0.05 level with 2-tailed test. It indicates higher the leverage, liquid assets, total assets do affect the profitability of insurance companies. There is positive correlation between FA and PG with ROA and ROE and statistically insignificant at 0.05 level with 2-tailed test. It indicates increase in premium and age in the business of insurance companies doesn't affect the profitability of insurance companies.

### **4.3 Regression Analysis**

Regression coefficients is useful to identify the degree of association between/among the variables. Under this study, regression analysis for ROA, ROE, FA, LEV, LIQ, TA, PG and FS are conducted based on data given on appendix. Result of regression analysis conducted using SPSS software is presented in Table 11.

Table 11

*Regression Coefficient: ROA*

Model	Unstandardized		Standardized		Sig.	Remarks
	Coefficients	Std. Error	Beta	t		
1 (Constant)	11.753	8.506		1.382	0.173	
FA	2.041	0.808	0.182	2.527	0.015	Significant
LEV	0.158	0.011	0.887	14.662	0.000	Significant
LIQ	0.293	0.076	0.379	3.859	0.000	Significant
TA	0.087	0.018	0.627	4.807	0.000	Significant
PG	0.024	0.012	0.108	2.019	0.049	Significant
FS	2.400	0.235	0.802	10.216	0.000	Significant

**a. Dependent Variable: ROA***Sources: SPSS based on data given on Appendix*

Table 11 represents the regression coefficient of selected variable for ROA. The result show that FA, LEV, LIQ, TA, PG and FS are significant. Since the t ratio is 2.527, 14.662, 3.859, 4.807, 2.019 and 10.216 respectively and the p value are less than 0.05 for FA, LEV, LIQ, TA, PG and FS which are significant at 5% level of significance. It means that Rs. 1 increase in FA, LEV, LIQ, TA, PG and FS leads to Rs. 0.182, 0.887, 0.379, 0.627, 0.108 and 0.802 respectively in ROA.

Similarly, considering the effect of FA, LEV, LIQ, TA, PG and FS in above table the Unstandardized coefficient of B is equal to 2.041, 0.158, 0.293, 0.087, 0.024 and 2.400, this means that there is a positive relationship between FA, LEV, LIQ, TA, PG and FS with ROA and for every increase in firm age, leverage, liquidity, tangibility assets, premium growth and firm size there is increase in ROA.

Based on the above figures, the regression line/ model is given as following equation;

$$Y = 11.75 - 2.041X_1 + 0.049X_2 - 0.293X_3 - 0.087X_4 + 0.024X_5 + 0.080X_6 + e$$

Where:

Y – Return on Asset (ROA)

X1 – Firm Age (FA)

X2 – Leverage (LEV)

X3 – Liquidity (LIQ)

X4 – Tangibility Assets (TA)

X5 – Premium Growth (PG)

X6 – Firm Size (FS)

e – Error Term

This implies that a unit change in the FA, LEV, LIQ, TA, PG and FS leads to 2.041, 0.158, 0.293, 0.087, 0.024 and 2.400 and point change in ROA of insurance companies in Nepal.

Table 12

*Model Summary*

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.928 <sup>a</sup>	0.862	0.846	1.55856

**a. Predictors: (Constant), FS, PG, FA, LIQ, TA, LEV**

*Sources: SPSS based on data given on Appendix*

Table 12 illustrates the summary of regression model. Table shows R square value is 0.862 i.e., 86.2 % which indicates that variation in ROA can be explained 86.2 % by the selected independent variable and remaining is caused by extraneous variable that are not considered in the study. Similarly, the adjusted R square is 0.846 which shows the model explanatory power with exclusion of constant variable in the regression model. In addition, coefficient for R is 0.928 which refers the correlation between independent selected variable and ROA. Since the coefficient 0.928 depicts that there is strong positive correlation between dependent and independent variable. The standard error of estimate 1.55856 shows the average deviation from the linear of best among the variable under the study.

Table 13

*ANOVA Test*

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	804.784	6	134.131	55.218	.000 <sup>b</sup>
Residual	128.742	53	2.429		
Total	933.526	59			

**a. Dependent Variable: ROA****b. Predictors: (Constant), FS, PG, FA, LIQ, TA, LEV**

*Sources: SPSS based on data given on Appendix*

The F statistic is used as a test for model goodness of fit,  $F = 55.218$ ,  $p$  value  $< 0.05$  shows that there is significant relationship between selected independent variable i.e., FA, LEV, LIQ, TA, PG, FS and ROA respectively of insurance companies in Nepalese scenario. The regression sum of squares shows that the sum of the squared deviation from the line of bestfit to respective observed variable, residual sum of square shows the sum of squared deviation which cannot be explained by the model while total sum of square shows the sum of squared deviation which has been explained and unexplained by the regression model. The degree of freedom (df) for the regression model is 6 corresponding with the number of independent variables and 59 in overall corresponding with response rate minus 6 while degree of freedom for residual is 53. The F statistic is ratio between regression mean sum of square and residual sum of square.

Table 14

*Regression Coefficient: ROE*

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Sig.</b>	<b>Remarks</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>		
1 (Constant)	12.518	17.041		0.735	0.466	
FA	5.360	1.618	0.217	3.313	0.002	Significant
LEV	0.278	0.062	0.712	4.515	0.000	Significant
LIQ	0.324	0.152	0.190	2.123	0.038	Significant
TA	0.081	0.036	0.267	2.244	0.029	Significant
PG	0.061	0.024	0.127	2.594	0.012	Significant
FS	0.311	0.489	0.825	3.111	0.000	Significant

**a. Dependent Variable: ROE**

*Sources: SPSS based on data given on Appendix*

Table 14 signifies the regression coefficient of selected variable for ROE. The result show that FA, LEV, LIQ, TA, PG and FS are significant. Since the t ratio is 3.313, 4.515, 2.123, 2.244, 2.594 and 3.111 respectively and the p value are less than 0.05 for FA, LEV, LIQ, TA, PG and FS which are significant at 5% level of significance. It means that Rs. 1 increase in FA, LEV, LIQ, TA, PG and FS leads to Rs. 0.217, 0.712, 0.190, 0.267, 0.127 and 0.825 respectively in ROE.

Similarly, considering the effect of FA, LEV, LIQ, TA, PG and FS in above table the Unstandardized coefficient of B is equal to 5.360, 0.278, 0.324, 0.081, 0.061 and 0.311, this means that there is a positive relationship between FA, LEV, LIQ, TA, PG and FS with ROE and for every increase in firm age, leverage, liquidity, tangibility assets, premium growth and firm size there is increase in ROE.

Based on the above figures, the regression line/ model is given as following equation;

$$Y = 12.518 - 5.360X_1 + 0.278X_2 - 0.324X_3 - 0.081X_4 + 0.061X_5 + 0.311X_6 + e$$

Where:

Y – Return on Equity (ROE)

X<sub>1</sub> – Firm Age (FA)

X<sub>2</sub> – Leverage (LEV)

X<sub>3</sub> – Liquidity (LIQ)

X<sub>4</sub> – Tangibility Assets (TA)

X<sub>5</sub> – Premium Growth (PG)

X<sub>6</sub> – Firm Size (FS)

e – Error Term

This implies that a unit change in the FA, LEV, LIQ, TA, PG and FS leads to 5.360, 0.278, 0.324, 0.081, 0.061 and 0.311 and point change in ROE of insurance companies in Nepal.

Table 15

*Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.941 <sup>a</sup>	0.886	0.873	3.12256

**a. Predictors: (Constant), FS, PG, FA, LIQ, TA, LEV**

*Sources: SPSS based on data given on Appendix*

Table 15 represents the summary of regression model. Table shows R square value is 0.886 i.e., 88.6 % which indicates that variation in ROE can be explained 88.6 % by the selected independent variable and remaining is caused by extraneous variable that are not considered in the study. Similarly, the adjusted R square is 0.873 which shows the model explanatory power with exclusion of constant variable in the regression model. In addition, coefficient for R is 0.941 which refers the correlation between independent selected variable and ROE. Since the coefficient 0.941 depicts that there is strong positive correlation between dependent and independent variable. The standard error of estimate 3.12256 shows the average deviation from the linear of best among the variable under the study.

Table 16

*ANOVA Test*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4000.369	6	666.728	68.380	.000 <sup>b</sup>
	Residual	516.770	53	9.750		
	Total	4517.139	59			

**a. Dependent Variable: ROE**

**b. Predictors: (Constant), FS, PG, FA, LIQ, TA, LEV**

*Sources: SPSS based on data given on Appendix*

The F statistic is used as a test for model goodness of fit,  $F = 68.380$ ,  $p$  value  $< 0.05$  shows that there is significant relationship between selected independent variable i.e., FA, LEV, LIQ, TA, PG, FS and ROE respectively of insurance companies in Nepalese scenario. The

regression sum of squares shows that the sum of the squared deviation from the line of best fit to respective observed variable, residual sum of square shows the sum of squared deviation which cannot be explained by the model while total sum of square shows the sum of squared deviation which has been explained and unexplained by the regression model. The degree of freedom (df) for the regression model is 6 corresponding with the number of independent variables and 59 in overall corresponding with response rate minus 6 while degree of freedom for residual is 53. The F statistic is ratio between regression mean sum of square and residual sum of square.

### **Major Findings**

The study has major objective of evaluating the factors affecting profitability of insurance companies in Nepal. Based on calculation from the SPSS, followings are the key findings for this study;

- Analysis of ROA shows that mean of ROA for Shikhar Insurance is 8.6290 with standard deviation 2.43730 and ranges from 4.22 to 11.79. Similarly, mean value of ROA for NLG and NIL are 8.8790 and 8.1210 with standard deviation of 2.65812 and 1.55383 and ranges from 5.25 to 12.71 and 4.65 to 9.39.
- The mean value of ROA for NLICL, LICN and ALICL are 1.9670, 1.1620 and 1.0450 with standard deviation of 0.94725, 0.73889 and 0.85210 and ranges from 1.05 to 4.46, 0.36 to 2.81 and -0.21 to 3.06 respectively.
- The mean value of ROE for Shikhar insurance is 17.5760 with standard deviation of 6.76456 and ranges from 6.07 to 27.48. Similarly, mean value of NLG and NIL insurance are 16.8950 and 16.1150 with standard deviation of 7.17207 and 2.46933 and ranges from 7.92 to 29.09 and 10.64 to 19.77.
- The mean value of NLICL, LICN and ALICL insurance are 2.1140, 1.2410 and 1.0910 with standard deviation of 1.03438, 0.79477 and 0.89489 and ranges from 1.14 to 4.85, 0.38 to 3.01 and -0.21 to 3.22.
- The correlation coefficient of FA, LEV, LIQ, TA, PG and FS with ROA are 0.138, 0.887, 0.633, 0.653, 0.013 and 0.653 respectively. Among them FA and PG are positive and insignificant at 5 % level of confidence.
- The correlation coefficient of FA, LEV, LIQ, TA, PG and FS with ROE are 0.092, 0.918,

0.709, 0.577, 0.064 and 0.604 respectively. Among them FA and PG are positive and insignificant at 5 % level of confidence.

- The estimated regression coefficient for PG on ROA is 0.024 which is positive and significant at 5 % confidence level.
- The estimated regression coefficient for FA, LIQ and TA on ROA are 2.041, 0.293 and 0.087 which are positive and significant at 5 % level. The estimated regression coefficient of LEV and FS are 0.158 and 2.400 which are significant at 5 % level.
- The estimated coefficient for FA, LEV, LIQ, TA, PG and FS on ROE are 5.360, 0.278, 0.324, 0.081, 0.061 and 0.311 which are all significant at 5 % level.
- The R squared values for regression model are 86.2 % and 88.6 % for ROA and ROE respectively.

#### **4.4 Discussion**

The study has major objective of evaluating factors affecting profitability of insurance companies in Nepal. Many studies revealed that the factors have a significant relation with profitability measured by the dependent variables (ROA and ROE) and independent variables (FA, LEV, LIQ, TA, PG and FS).

The regression analysis shows that firm age, liquidity ratio, tangibility assets and premium growth have significant relationship with ROA and is consistent with Xuezhui and Dickson (2012), Kleff and Weber (2008), Bektas (2014) which reveals that insurance profitability has positive relationship with liquidity and firm age, premium growth is positively correlated to the return on assets and tangibility assets and profitability of insurance companies have a positive relationship. This may be because ROA on firm age, tangibility assets, premium growth, and liquidity ratio reflects the fundamental relationship between profitability and various operational, financial, and market factors within insurance companies. These factors collectively contribute to the overall financial performance and success of insurance firms.

The regression analysis also showed that there is positive and significant relationship between leverage and firm size with ROA. This study is reliable by the study of Bhattarai (2020), Upadhyaya (2020), Browne et al. (2001) stating that there is positive relationship

between profitability and firm size and suggest that non-life insurance companies should focused on proper management and capabilities to pay liabilities to enhance profitability and also try to maintain a smaller value of leverage ratio to handle the above-average loss, firm size have positive impact on return on assets and the company size has a positive relationship with the financial performance of life insurance companies. This can be because larger insurance companies and those with higher leverage tend to exhibit higher profitability. This could be due to factors such as economies of scale, market dominance, diversification, access to capital, and efficiency, all of which contribute to the ability of these firms to generate higher returns on their assets.

Similarly, the result of regression analysis shows that firm age, leverage ratio, liquidity ratio, tangibility assets and premium growth have significant relationship with ROE and significant between firm size and ROE. ROE measures a company's profitability which reveals how much profit a company generates with the money shareholders have invested. This result is supported by the study of Arbiyan and Safari (2009), Mohd-Zaid et al. (2014), Shil et al. (2015) articulating a positive relationship between premium growth, liquidity ratio, tangibility assets and profitability (ROE), insurance premium and firm age have significant relationships with ROE and revealed that there is positive significant relationship between liquidity and leverage with financial performance (ROE) as well as there is significant relationship of tangibility and premium with financial performance (ROE). The contradiction in result may be because various aspects of company size, financial structure, liquidity management, business maturity, asset composition, and revenue growth play crucial roles in determining insurance company profitability in the Nepalese market.

Meanwhile, the result of correlation coefficient also shows that there is significant of 5 % 2-tailed test between LEV, LIQ, TA and FS with ROA and ROE and is persistent with the findings of Sah et al. (2021), Pradhan *et al.* (2020), Cekrezi (2013), Kodongo *et al.* (2015) which reveals that TA, PG, FS, LEV have positive impact on ROA and TA, PG, FA and LIQ have positive impact on ROE. The study concluded that leverage followed by liquidity is the most influencing factor that explains the changes in the return on equity. Likewise, the study also concluded that liquidity followed by firm size and tangibility assets is the most

influencing factor that explains the changes in the return on assets in the context of Nepalese insurance companies. Similarly, the relationship between leverage and the financial performance of listed firms in Kenya are positively significant. The results showed that asset tangibility, sales growth and firm size are important determinants of profitability. This may be due to larger firms, optimal leverage, sufficient liquidity, and tangible assets that have positive impact on profitability by enhancing operational efficiency, financial stability, and risk management. This understanding can inform strategic decisions aimed at maximizing profitability within the Nepalese insurance sector.

There is significance positive association between premium growth (PG) and ROE and also significant positive association between liquidity (LIQ) and ROE. This implies that PG and ROE change in same direction either positive or negative. This result is consistent with the study of Sah & Magar (2021), Hamal (2020).

## **CHAPTER V**

### **SUMMARY AND CONCLUSION**

In this final chapter summery, conclusion and implication are given based on the results and analysis of data collected from the field. The suggestions of the possible solutions to the research problem are also given in this chapter. Finally, study suggests the area for further study in order to assist others who will be in a position to conduct studies by referring this study.

#### **5.1 Summary**

This study concern in the topic of "Factors Affecting Profitability of Nepalese Insurance Companies". The research has followed these objectives: (i) To examine the current status of profitability of selected insurance companies. (ii) To analyze the relationship between variables of selected insurance companies. (iii) To examine the impact of factors (FA, LEV, LIQ, TA, PG, FS) on profitability (ROA and ROE) of selected insurance companies. To meet the desired objectives, it utilizes the ten years (2070/71 to 2079/80) sample of Nepalese insurance companies. For this purpose, descriptive and casual comparative research design has adopted. Out of the total population, six insurance companies were taken as sample using Purposive Sampling Method. Secondary data have been used in the study. Analysis of Absolute Data, Analysis of Financial Ratios, and Statistical Analysis is carried out to fulfill the objective of the study. The findings are drawn after analyzing the ten years data of sample companies. Different ratios were calculated to get the results for conclusions. Since the topic of the study revolves around the factors affecting profitability of Nepalese insurance companies.

This study has taken six variables as independent variables i.e. FA, LEV, LIQ, TA, PG and FS after reviewing the previous study. As per the review of literature, these independent variables are important factors for affecting performance of abroad countries such as Kenya insurance companies, Indian insurance companies, Srilanka insurance companies, Pakistan

insurance companies and soon. In context of Nepal, many studies have conducted as on topic related with factors affecting profitability on banking sectors. But only few research works focused on factors affecting profitability of insurance companies of Nepal is found. After Keeping in view, the research gap, Researcher has taken sample of six insurance companies listed in NEPSE, which predict the relationship between Firm Age (Natural logarithm of number of years from the date of establishment), LEVERAGE (Current Liabilities/ Total Assets) in percentage, Liquidity (Total Current Assets / Total Current Liabilities), tangibility assets (Total Fixed Assets / Total Assets) in percentage, premium growth (Percentage growth of gross written premiums) in percentage and Firm Size (Natural logarithm of total assets of insurance companies) with ROA as well as ROE by using data from the period 2070/71-2079/80 B.S.

This study has studied the patterns of the Net income, Shareholder Equity, Current Assets, Current Liabilities, Total Assets in absolute term before financial and statistical analysis to find the objective of the studies. The pattern of Net income, Shareholder Equity, Current Assets, Current Liabilities, and Total Assets are increasing trend. LICN, NLICL, ALICL has highest absolute figure in Net income, Shareholder Equity, Current Assets, Current Liabilities, and Total Assets in terms of life insurance and NLG, SICL and NIL has highest absolute figure in Net income, Shareholder Equity, Current Assets, Current Liabilities, and Total Assets in terms of non-life insurance.

## **5.2 Conclusion**

It can conclude during the study period of the concerned sample Insurance companies, certain conclusion has been derived after the financial as well as statistical tools have been measured on behalf of different aspect of factors affecting profitability of Nepalese insurance companies. Six variables (Age , LEV, Liquidity, Tangibility, Premium Growth and Size) are considering studying impact on performance of insurance companies through descriptive and casual comparative research design.

The correlation result shows that LEV, LIQ, TA and FS with ROA and ROE have positive significant correlation. Likewise, FA and PG has positive insignificant correlation with ROA

and ROE. Based on regression analysis (ROA as dependent variable) ANOVA table shows that the F-value is 55.218 of ROA and 68.380 of ROE, which implies that if independent variables increase by 1%, and ROA increases by 55.218% and ROE by 68.380%. P-value is 0.000(Significant). P-Value indicates the combined effect of the result is significant or insignificant. That means result is significant at a 5% level. On the other hands the regression coefficient table shows that there is a positive relation between ROA and ROE with FA, LEV, LIQ, TA, PG and FS.

From the result, it can be concluded that there is significance positive association between selected key financial indicators and profitability of Nepalese insurance companies. Hence, these factors can be considered while analyzing the profitability of insurance companies.

### **5.3 Implications**

Knowledge of factors affecting profitability of any company is the major concern for the investor, policy maker and manager. This study also has several implications pointing to interesting avenues for future research. Some implications and suggestions are discussed here;

#### **General Implication**

- This study examined the internal factor that affect the profitability of insurance companies in Nepal. The variable chosen were firm specific variables and may not be the only variables that affect the profitability of insurance company. It is recommended that further research could be conducted to establish whether macro-economic variables affect profitability of insurance companies in Nepal.
- Based on the findings of the study, investors and policymakers can use the information regarding the factors they should consider for their profitability metrics to access the financial health and stability of insurance companies. The result of this study suggests investors should pay their attention on leverage ratio, tangibility assets before making any decision regarding the investment based on profitability.
- This study shows relation between factors affecting profitability of insurance companies that will help management to prepare better strategies to increase the profit of organization.

- There is positive relationship between Leverage with ROA & ROE. Thus, insurance companies should use more sources of short-term liabilities as possible. But high levels of obligation could lead to bankruptcy due to inability to pay these liabilities. Companies should be careful to use of fund from these liabilities.
- All insurers should find an area they capitalize on it to get a competitive edge while trying to upgrade factors to impact positively on the ROA and ROE in which they are weak. This would place them ahead of competition. In addition, this would enhance their financial performance after analysis the different factors which not included in this study may affect to their performance.

### **Implication for future studies**

- The research solely relies on secondary data and does not incorporate the preferences of diverse investors and other stakeholders. Thus, forthcoming studies could consider utilizing primary data exclusively or a combination of primary and secondary data sources. This approach would offer a more comprehensive understanding of the subject matter by capturing the perspectives and insights of various stakeholders, potentially enriching the depth and breadth of research findings.
- In subsequent research, the incorporation of advanced statistical methodologies is suggested. For instance, future investigations could explore the application of non-linear statistical techniques and bidirectional causality tools. By employing these sophisticated analytical approaches, researchers may uncover deeper insights and nuances within the data.
- Furthermore, the present study is confined to sampled insurance companies in Nepal over a ten-year period, constrained by data availability. In the future, researchers can overcome this limitation by utilizing larger sample sizes and examining additional variables and sectors. This expanded scope would provide a more comprehensive understanding of the subject matter and facilitate broader insights into the dynamics of the insurance industry.
- Future research could explore additional issues such as the effectiveness and efficiency of insurance companies in indemnifying risks and enhancing their

performance in a fair and equitable manner. Investigating these aspects would provide valuable insights into the operational practices and effectiveness of insurance companies, ultimately contributing to the advancement of the industry and the fulfillment of stakeholders' needs.

- To obtain a more accurate result and to generalize the result, future researchers could use probability sampling technique, random sampling technique, systematic sampling technique etc. instead of convenience sampling technique.

## REFERENCES

- Ahmed, N., Ahmed, Z., & Usman, A. (2011). Determinants of performance: A case of life insurance sector of Pakistan. *International Research Journal of Finance and Economics*, 61(1), 123-128.
- Ahmeti, Y. & Iseni, E. (2022). Factor Affecting Profitability of Insurance Companies: Evidence from Kosovo. [https:// www. sciencegate. app/source/271526](https://www.sciencegate.app/source/271526)
- Akhtar, M. H. (2018). Performance analysis of Takaful and conventional insurance companies in Saudi Arabia. *Benchmarking: An International Journal*, 25(2), 677–695.
- Akotey, J., Sackey, F., Amoah, L., & Manso, R. (2013). The financial performance of life insurance companies in Ghana. *The Journal of Risk Finance*, 14(3), 286-302.
- Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian Insurance Companies listed at Amman Stock Exchange. *Journal of Management Research*, 4(2), 266-289.
- Al-Shami, H. A. (2008). *Determinants of insurance company's profitability in UAE* (Unpublished master's thesis). College of Business, University of Utara Malaysia.
- Antoniou, A., Guney, Y., & Paudyal, K. (2008). The determinants of capital structure: Capital-market oriented versus bank-oriented institutions. *Journal of Financial and Quantitative Analysis*, 43(2), 59- 92.
- Ayele, A.G. (2012). Factors Affecting Profitability of Insurance Companies in Ethiopia: Panel Evidence. *International Research Journal of Account and Finance*, 41(1), 133-127.
- Azmi, F., Irawan, T.& Sasongko, H. (2020). Determinants of Profitability of General Insurance Companies in Indonesia. *JIMFE (Jurnal Ilmiah Manajemen Fakultas Ekonomi)*. <https://journal.unpak.ac.id/index.php/jimfe>
- Batool, A., & Shahi, A. (2019). Determinants of financial performance of insurance companies of USA and UK during global financial crisis (2007–2016).

- International Journal of Accounting Research*, 7(1), 194-218.
- Berger, A. N., and R. DeYoung (1997). Problem loans and cost efficiency in commercial banks. *Journal of Banking and Finance*, 21(6), 849-870.
- Berhe, T. A., & Kaur, J. (2017). Determinants of insurance companies' profitability: Analysis of insurance sector in Ethiopia. *International Journal of Research in Finance and Marketing*, 7(4), 124-137.
- Bevan, N., Alan, A., & Danbolt, J. (2002). Capital structure and its determinants in the United Kingdom: A decomposition analysis. *Applied Financial Economics*, 12(3), 159-170.
- Bhutta, N. T., & Hasan, A. (2013). Impact of firm specific factors on profitability of firms in food sector. *Scientific Research*, 2(2), 113-1119.
- Bhattarai, B.P. (2020). Factors Influencing Profitability of Insurance Companies In Nepal. *International Journal of Management (IJM)*.
- Boadi, E. K., Antwi, S., & Lartey, V. C. (2013). Determinants of profitability of insurance of insurance firms in Ghana. *International Journal of Business and Social Research*, 3(3), 43-50.
- Bogamuwa, S. (2022). Factors Affecting the Financial Performance of Insurance Companies in Sri Lanka. *Department of Insurance and Valuation, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka*.
- Browne, M. J., Carson, J. M., & Hoyt, R. E. (2001). Dynamic financial models of life insurers. *North American Actuarial Journal*, 5(2), 11-26.
- Budhathoki, A., Syangtan, A., Shah, A. K., Aryal, A., & Prajapati, A. (2020). Impact of non-performing loans on bank's profitability of Nepalese commercial banks. *Nepalese Journal of Business*, 7(3), 116-127.
- Burca, A. M., & Batrinca, G. (2014). The determinants of financial performance in the Romanian insurance market. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(1), 299-308.
- Cekrezi, A. (2013). Impact of firm level factors on capital. *European Journal of Sustainable Development*, 2(4), 135– 148.

- Cekrezi, A. (2015). Determinants of financial performance of the insurance companies: A case of Albania. *International Journal of Economics, Commerce and Management*, 3(4), 1-10.
- Charumati, B. (2012). On the determinants of profitability of Indian life insurers: An empirical study. *Proceedings of the World Congress on Engineering 2012, London, 1*. <https://www.researchgate.net/publication/282319928>.
- Chen, J., Chen, M., Liao, W., & Chen, T. (2009). Influence of capital structure and operational risk on profitability of life insurance industry in Taiwan. *Journal of Modelling in Management*, 4(1), 7-18.
- Chen, R., & Wong, K. A. (2004). The determinants of financial health of Asian insurance companies. *The Journal of Risk and Insurance*, 71(3), 469- 499.
- Cooke T. E. (1992). The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations. *Accounting and Business Research*, 22(8), 229-237.
- Curak, M., Pepur, S., & Poposki, K. (2011). Firm and economic factors and performance: Croatian composite insurers. *The Business Review Cambridge*, 19(1), 136-142.
- Dahal, P., P. Timalena, P. Sah, and P. Sah (2020). Liquidity management and financial performance of Nepalese insurance companies. *Nepalese Journal of Business*, 7(3), 137-146.
- Dahal, S., S. Timilsina, and U. Paudel (2015). Impact of macro-economic factors on Nepalese firm performance. *Nepalese Journal of Finance*, 2(6), 52-63.
- Debala, G., Bhat, M.A. & Khan, S.G. (2022). Profitability of Non-Life Insurance and its Driving Dynamic in Ethiopia. *Pacific Business Review (International)*.
- Djamaluddin, S., and A. Herawaty (2019). Determinants of profitability of general insurance companies in Indonesia. *International Journal of Innovative Research and Development*, 8(7), 82-94.
- Gebremariyam, M. M. (2014). Determinants of insurance companies' profitability in Ethiopia (Unpublished master's thesis). Addis Ababa University, Ethiopia.
- Ghimire, R. (2013). Financial efficiency of non-life insurance industries in Nepal. *Lumbini Journal of Business and Economics*, 3(2), 1-14.

- Ghimire, R. (2015). *Life insurance companies in Nepal: A critical appraisal* (Doctoral dissertation). Banaras Hindu University, India.
- Greene, W. H., and D. Segal (2004). Profitability and efficiency in the US life insurance industry. *Journal of Productivity Analysis*, 21(3), 229-247.
- Guendouz, A.A. & Ouassaf, S. (2018). Determinants of Saudi Takaful Insurance Companies Profitability. *Academy of Accounting and Financial Studies Journal*.
- Haddad, H. (2024). Factors Affecting the Profitability of Industrial Companies Listed in Amman Stock Exchange. *Montenegrin Journal of Economics*, Vol. 20, No. 1, pp. 137-147.
- Hamal, J.B. (2020). Factors Affecting Profitability of Nepalese Non-Life Insurance Companies. *The Journal of Nepalese Business Studies Vol. XIII*.
- Hamal, J.B. (2020). Impact of Firm Specific Factors on Financial Performance of Life Insurance Companies in Nepal. *Interdisciplinary Journal of Management and Social Sciences*.
- Hidayat, I. P., and I. Firmansyah (2017). Determinants of financial performance in the Indonesian Islamic Insurance Industry. *Journal of Etikonomi*, 16(1), 1–12.
- Hussanie, I., & Joo, B. A. (2019). Determinants of profitability of life insurers in India-panel evidence. *International Journal of Management Studies*, 6(1), 58-65.
- Ikonic, D., Arsic, N., & Milosevic, S. (2011). Growth potential and profitability analysis of insurance companies in the Republic of Serbia. *Chinese Business Review*, 10(11), 998-1008.
- Islam, M.N. & Akter, A. (2018). Factors Influencing The Insurance Companies' Profitability In Bangladesh. *Journal of Jessore University of Science and Technology*. 10 (12), 2521-5493.
- Jaishi, B. (2020). Capital structure and its impact on financial performance in insurance companies of Nepal. *Journal of Nepalese Business Studies*, 13(1), 89-106.

- Jaishi, B., & Poudel, R. L. (2021). Impact of firm specific factors on financial performance: A comparative study of life and non-life insurance companies in Nepal. *Prithvi Academic Journal*, 4(2), 39-55.
- Kanwal, S., & Nadeem, M. (2013). The impact of macroeconomic variables on the profitability of listed commercial banks in Pakistan. *European Journal of Business and Social Sciences*, 2(9), 186-201.
- Kaya, K. O. (2015). The effects of firm-specific factors on the profitability of non-life insurance companies in Turkey. *International Journal of Financial Studies*, 3(4), 1- 20.
- Kodongo, O., Mokoaleli-Mokoteli, T., & Maina, L. N. (2015). Capital structure, profitability and firm value: Panel evidence of listed firms in Kenya. *African Finance Journal*, 17(1), 1-20.
- Koirala, N. & Luitel, S. (2021). Asset Tangibility and Its Effects on Insurance Firm Profitability in Nepal. *Management Research Studies Journal*.
- Kozak, S. (2011). Determinants of profitability of non-life insurance companies in Poland during integration with the European financial system. *Electronic Journal of Polish Agricultural Universities*, 14(1), 1-9.
- Kramaric, T. P., Miletic, M., & Pavic, I. (2017). Profitability determinants of insurance markets in selected central and eastern European countries. *International Journal of Economic Sciences*, 6(2), 100-123.
- Kripa, D. & Ajasllari, D. (2016). Factor Affecting the Profitability of Insurance Companies in Albania. *European Journal of Multidisciplinary Studies ISSN 2414-8385*.
- Lee, Chen-Ying. (2014). The effects of firm specific factors and macroeconomics on profitability of property-liability insurance industry in Taiwan. *Asian Economic and Financial Review*, 4(50), 681-691.
- Maharjan, D. & Dutta, R. (2020). Impact of Leverage and Asset Structure on Nepalese Insurers' Performance. *Journal of Insurance and Financial Management*, 15(2), 34-58.
- Malik, H. (2011). Determinants of Insurance Companies Profitability: An Analysis of Insurance Sector of Pakistan. *Academic Research International*, Vol. 1 Issue 3, 315-321. Available: [http://www.savap.org.pk/journals/ARInt./Vol.1\(3\)/2011\(1.3-32\)](http://www.savap.org.pk/journals/ARInt./Vol.1(3)/2011(1.3-32)).

- Mehari, D., & Aemiro, T. (2013). Firm specific factors that determine insurance companies' performance in Ethiopia. *European Scientific Journal*, 9(10), 857-881.
- Mishra & Pradhan (2019). Determinants of Profitability of Insurance Companies in Nepal. *Nepalese Journal of Business*, 4(3), 17-31.
- Moro, O., and L. Anderloni (2014). Non-life insurance economic performance: An empirical investigation. *Journal of Economics and Management*, 18(1), 159–177.
- Molyneux, P., & Thornton, J. (1992). Determinants of European bank profitability: A note. *Journal of Banking and Finance*, 16(6), 1173-1178.
- Mwangi, M., & Murigu, J. W. (2015). The determinants of financial performance in general insurance companies in Kenya. *European Scientific Journal January*, 1(11), 288-297.
- Ngwili, K. P. (2014). *The relationship between liquidity and profitability of insurance companies in Kenya* (Unpublished master's thesis). University of Nairobi, Kenya.
- Nyabate, O. J. (2015). *Effect of liquidity on the financial performance of financial institutions listed in the Nairobi securities exchange* (Unpublished master's thesis). University of Nairobi, Kenya.
- Ojha, P. R. (2018). Macroeconomics and bank-specific factors affecting liquidity: A study of Nepali commercial banks. *Journal of Business and Social Sciences*, 2(1), 79-87.
- Omondi, M. M., & Muturi, W. (2013). Factors affecting the financial performance of listed companies at the Nairobi Securities Exchange in Kenya. *Research Journal of Finance and Accounting*, 4(15), 99-104.
- Pantha, B., B. Thapa, D. Bohara, D. Pantha, and I. Shrestha (2022). Effect of corporate governance mechanism and corporate social responsibility on financial performance of Nepalese insurance companies. *Nepalese Journal of Finance*, 9(2). 99-115.
- Pervan, M., Curak, M., & Mariajnovic, I. (2012). Dynamic panel analysis of BandH insurance companies' profitability. *Recent Researches in Business and Economics*, 1(1), 158-163.
- Pjanić, M., Milenković, N., Kalaš, B. & Mirović, V. (2018). Profitability Determinants of Non-life insurance company in Serbia DOI:[10.5937/EKOPRE1806333P](https://doi.org/10.5937/EKOPRE1806333P)

- Poudel, B. (2019). Impact of ownership structure on the profitability of Nepalese insurance companies. *Nepalese Journal of Business*, 6(3), 52-65.
- Pradhan, R. S. (2014). Bank specific and macroeconomic determinants of bank profitability: A case of Nepal. *Nepalese Journal of Finance*, 1(1), 1-11.
- Pradhan, S., and P. Dahal (2021). Financial performance of Nepalese insurance companies. *Nepalese Journal of Insurance and Social Security*, 4(1), 100-111.
- Pradhan, R. S., & Shrestha, P. (2015). Impact of bank specific and macroeconomic variables on the performance of commercial banks of Nepal. *Nepalese Journal of Business*, 2(1), 73-84.
- Risal, N. (2020). Determinants of Insurance Company Profitability: Analysis of Non-Life Insurance Companies in Nepal. *Elk Asia Pacific Journal Of Finance And Risk Management*, 11 (3), 2349-2325.
- Sah, L.K. & Magar, M.R. (2021). Factor affecting the profitability of Nepalese Insurance Companies. *Nepalese Journal of Insurance & Social Security*.
- Sakhuja, S. K. (2003, August). An untouched market for insurance. *The Nepali Times*. Retrieved from <http://archive.nepalitimes.com/news.php?id=3785#.XeIb4iN94nU>.
- Sasidharan, S., V. Ranjith, and S. Prabhuram (2020). Micro-and macro-level factors determining financial performance of UAE insurance companies. *The Journal of Asian Finance, Economics and Business*, 7(12), 909-917.
- Shahi, A. & Agnihotri, M. (2022). Impact of Liquidity, Tangibility and Size of a firm on the Life Insurance Companies Profitability in India. *Stallion Journal for Multidisciplinary Associated Research Studies ISSN (Online): 2583-3340* <https://doi.org/10.55544/sjmars.1.1.2>
- Sharma, D. & Kumar, K. (2019). Impact of Market Share on the Profitability of Nepalese Insurance Companies. *Nepalese Journal of Account & Finance*.
- Shiu, Y. (2004). Determinants of United Kingdom general insurance company performance. *British Actuarial Journal*, 10(5), 1079-1110.
- Sorensen, B., & Stuart, E. (2000). Age, obsolescence, and organizational innovation. *Academy of Management Journal*, 25(6), 121 - 132.
- Thapa, A. & Bhandari, S. (2022). Comprehensive Analysis of Profitability Factors in Nepalese Insurance Sector. *Insurance Studies Quarterly*, 8(4), 201-219.

- Upadhyaya, S. (2020). Relationship between cash flow and financial performance of Nepalese commercial banks. *Nepalese Journal of Economics*, 4(2), 124-139.
- Veronica, M., & Ababio, C. K. (2018). *The effect of capital structure on profitability of insurance companies in Ghana* (Unpublished doctoral dissertation). Kwame Nkrumah University of Science and Technology, Ghana.
- Wondwossen, J. D. (2016). Factors Affecting General Insurance Companies Profitability: Empirical Study in India. *International Journal of Marketing, Financial Services & Management Research* ISSN 2277-3622.
- Zainudin, R., Mahdzan, N., & Leong, E. S. (2018). Firm-specific internal determinants of profitability performance: An exploratory study of selected life insurance firms in Asia. *Journal of Asia Business Studies*, 12(4), 533-550.

## APPENDIX

### NLG INSURANCE COMPANY LIMITED

Fiscal Year	ROA	ROE	FIRM AGE	LIQUIDITY	Leverage Ratio	Tangibility Assets	PREMIUM GROWTH	Firm Size
2079/80	5.99	8.44	25	2.93	29.05	14.85	2.51	3984439417
2078/79	5.25	7.92	24	2.53	33.66	14.96	6.39	3914115529
2077/78	7.12	11.22	23	2.31	36.55	15.67	7.89	3687349524
2076/77	6.87	11.78	22	1.94	41.67	19.35	1.47	2946091600
2075/76	9.17	16.31	21	1.95	43.74	14.74	1.38	2701454747
2074/75	10.01	18.13	20	1.86	44.77	16.77	13.10	2307095927
2073/74	11.06	21.86	19	1.71	49.40	15.49	28.04	2075309304
2072/73	8.06	18.70	18	1.44	56.29	18.66	3.60	1895621424
2071/72	12.71	25.50	17	1.66	50.15	16.52	21.19	1359473246
2070/71	12.55	29.09	16	1.43	56.98	18.66	4.42	1212132615

### SHIKHAR INSURANCE COMPANY LIMITED

Fiscal Year	ROA	ROE	FIRM AGE	LIQUIDITY	Leverage Ratio	Tangibility Assets	PREMIUM GROWTH	Firm Size
2079/80	4.22	6.07	19	1.23	62.31	23.32	8.28	6523453035
2078/79	5.77	8.45	18	2.38	31.71	24.67	2.64	5396416326
2077/78	8.05	12.92	17	2.02	37.66	23.82	11.09	5062113758
2076/77	8.49	15.60	16	1.68	45.58	23.25	19.21	4728739612
2075/76	9.38	18.38	15	1.70	48.98	16.83	12.49	4256961274
2074/75	10.47	20.31	14	1.73	48.47	16.39	37.00	3439003132
2073/74	11.52	21.53	13	1.77	46.52	17.74	60.48	2661597433
2072/73	11.79	27.48	12	1.30	57.13	25.62	43.07	1862658358
2071/72	9.52	22.36	11	1.28	57.50	26.31	34.15	1376835806
2070/71	7.08	22.66	10	1.04	68.92	25.46	23.42	1165184754

**NECO INSURANCE LIMITED**

Fiscal Year	ROA	ROE	FIRM AGE	LIQUIDITY	Leverage Ratio	Tangibility Assets	PREMIUM GROWTH	Firm Size
2079/80	8.06	14.77	29	1.92	45.42	12.92	4.75	6758915161
2078/79	8.50	15.98	28	1.81	46.81	15.28	29.95	5937232694
2077/78	9.39	17.56	27	1.81	46.51	15.87	10.97	4982834392
2076/77	8.56	16.07	26	1.71	46.70	19.96	16.21	4142466683
2075/76	8.85	15.43	25	1.83	42.61	21.99	31.92	3416339138
2074/75	8.87	16.97	24	1.68	47.72	19.71	74.72	2350208213
2073/74	9.15	19.77	23	1.48	53.74	20.55	84.49	1328791424
2072/73	9.19	18.55	22	1.47	50.51	25.73	14.15	1002877613
2071/72	4.69	10.64	21	1.49	56.05	16.38	10.82	782803293
2070/71	5.95	15.41	20	1.28	61.55	20.92	18.43	621242515

**NATIONAL LIFE INSURANCE COMPANY LIMITED**

Fiscal Year	ROA	ROE	FIRM AGE	LIQUIDITY	Leverage Ratio	Tangibility Assets	PREMIUM GROWTH	Firm Size
2079/80	1.24	1.31	18	4.27	5.83	75.09	14.63	59816517112
2078/79	1.36	1.46	17	4.07	6.77	72.46	35.37	50572043191
2077/78	1.73	1.87	16	3.19	7.50	76.05	15.72	40986883528
2076/77	1.05	1.14	15	3.04	8.40	74.46	27.21	33516779403
2075/76	1.82	2.00	14	2.72	8.55	76.75	28.06	25992247710
2074/75	1.97	2.10	13	4.22	6.40	73.02	34.02	20810065070
2073/74	2.05	2.17	12	11.20	5.43	39.20	24.71	17035224112
2072/73	1.86	1.97	11	12.47	5.69	29.05	20.49	14188427735
2071/72	2.13	2.27	10	10.57	6.63	29.95	18.99	11881488612
2070/71	4.46	4.85	9	6.43	8.19	47.34	5.80	9926277166

**LIFE INSURANCE CORPORATION NEPAL LIMITED**

Fiscal Year	ROA	ROE	FIRM AGE	LIQUIDITY	Leverage Ratio	Tangibility Assets	PREMIUM GROWTH	Firm Size
2079/80	0.74	0.80	23	2.58	7.63	80.30	6.39	105272015110
2078/79	0.86	0.93	22	3.18	7.25	76.94	14.90	90504575199
2077/78	0.95	1.02	21	2.18	6.99	84.74	11.18	75643412738
2076/77	0.51	0.55	20	3.19	6.81	78.26	28.25	60785514339
2075/76	2.81	3.01	19	3.63	6.58	76.13	22.10	47888039056
2074/75	0.36	0.38	18	4.84	7.02	66.02	22.50	37902499687
2073/74	1.10	1.15	17	16.68	4.20	30.00	30.59	29264203612
2072/73	1.10	1.16	16	13.86	4.78	33.79	29.61	22564609777
2071/72	1.13	1.18	15	12.08	4.14	49.96	30.48	17211666674
2070/71	2.06	2.23	14	4.39	7.86	65.47	29.89	13473178163

**NATIONAL LIFE INSURANCE COMPANY LIMITED**

Fiscal Year	ROA	ROE	FIRM AGE	LIQUIDITY	Leverage Ratio	Tangibility Assets	PREMIUM GROWTH	Firm Size
2079/80	0.88	0.93	16	1.35	5.54	92.54	17.02	37032950444
2078/79	1.18	1.26	15	1.76	5.70	89.95	29.12	30944987009
2077/78	0.97	1.02	14	2.10	4.69	90.14	8.30	24761355696
2076/77	1.10	1.13	13	3.02	3.36	89.84	39.38	20018247283
2075/76	0.21	0.21	12	3.04	3.68	88.81	31.49	15025328007
2074/75	0.45	0.46	11	5.87	2.70	84.16	13.95	11338685364
2073/74	1.18	1.22	10	6.34	2.50	84.14	21.83	8952904343
2072/73	0.45	0.46	9	7.43	2.44	81.88	19.27	6908855883
2071/72	1.39	1.42	8	31.34	2.48	22.20	19.80	5406805603
2070/71	3.06	3.22	7	14.51	5.10	26.05	11.08	4097518684

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