A COMPARATIVE STUDY ON RISK AND RETURN ANALYSIS 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 of Business Studies (MBS)

By

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"A Comparative Study no Risk and Return Analysis 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 this dissertation.

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REPORT OF RESEARCH COMMITTEE

Mr. Pritam Kumar Sah has defended research proposal entitled **"A Comparative Study on Risk and Return Analysis of Nepalese Insurance Companies"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Dr. Binita Manandhar submit the thesis for evaluation and viva-voce examination.

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APPROVAL SHEET

We, the undersigned, have examined the thesis entitled **" A Comparative Study on Risk and Return Analysis of Nepalese Insurance Companies"** presented by Pritam Kumar Sah for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

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ABBREVIATIONS

EICL : Everest Insurance Company Ltd.

HGICL : Himalayan General Insurance Company Ltd.

NEPSE : Nepal Stock Exchange

NICL : NLG Insurance Company Ltd.

PICL : Premier Insurance Company Ltd.

UICLL : United Insurance Company Ltd.

ABSTRACT

This study focuses on the common stock investment among other securities. Investors of common stock are ultimate owner of the company, who are ultimately associated with risk and return. So to maximize the share price, the finance manager must learn to assets two key determinants risk and return. In become easier when there is existence of developed and healthy stock market in the country. Risk and return is getting considerable attention in financial management.

To measure the risk and return associated with the stocks of sample insurance companies. To segregate the total risk of individual stock into systematic and unsystematic risk and scrutinize its relation with return on stock and to find their consistencies. Today each and every decision-making is based on financial, as it is an important branch of economy. As we have discussed above major target of the study is the potential investor who wants to invest in the securities market but repel due to imagination of unreal risk. So, the study will be more significant for exploring and increasing stock investment. It will also provide little contribution in the stock market development. Highest portfolio return is 6.55% which is formed from the combination of EIC & EIC. Similarly the lowest portfolio return is -3 % of EIC &UICL. The portfolio analysis indicates that forming portfolio can reduce minimum level of the risk. EIC stock has highest unsystematic risk whereas HGIC has lowest unsystematic risk among sample firm's stock.

As Beta coefficient measures the systematic risk and explains the sensitivity or volatility of the stock with market. The beta coefficient of various sample companies of PIC, EIC, HGIC, UICL and NLGIC are -0.1658, -0.1220, 0.5415, 0.9783 and 0.6788 respectively. Since beta coefficient of all companies except NLGIC is greater than 1. It indicates the share is more risky or volatile than market except NLGIC. The CAPM analysis indicated that the sample of insurance company's stocks except NLGIC is underpriced. While partitioning risk the systematic risk proportion of PIC, EIC, HGIC & NLGIC are 96.79%, 8.60%, 95.61%, 91.99% and 90.26% respectively. Stock of PIC, HGIC, and UICL has high systematic risk among five insurance companies. The stock of NLGIC has equaled both risks. This evidence indicates that while constructing a portfolio to minimize the risk EIC stock is preferable because the investors can minimize the portfolio risk.

CHAPTER -I
INTRODUCTION

1.1 Background of the Study

The total growth of a nation is intimately linked to its economic prosperity. The two main drivers of the country's economic growth are industrialization and capital formation. Making prudent financial decisions and investing in the producing sector is how industrialization is achieved. Funds that are distributed around the country might be gathered through financial institutions. One can invest in stocks or the capital markets. One financial arena that makes buying and selling stocks simple for everyone interested in doing business is the stock market. The country's overall growth is said to be aided by the rise of the financial sector, which is represented by the country's stock market. Thus, it is essential to have a healthy and active stock market, which also aids in the regulation of different industries and benefits the general people by bringing all the services and information they need under one roof, making life easier for them. Securities markets are mechanisms designed to ease the exchange of financial assets because they bring together buyers and sellers of securities.

The stock market is the financial market, the most glamorous and maybe the least understood. Many investors perceive stock market trading as a game where the primary goal is to identify winners, while some observers see it as a legalized gambling paradise.

The only structured exchange in Nepal that facilitates systematic securities trading is called NEPSE. For their securities to be traded on the secondary market, all firms need to be listed on NEPSE. NEPSE's primary goal is to give corporate and government securities unfettered marketability and liquidity by enabling trade on its trading floor via market intermediaries like brokers and market makers, among others.

Investment

To invest is to put money into something with the intention of achieving a certain profit. Stated differently, investing entails forgoing now money in favor of future ones. An investment always carries some risk and requires time. Investment also contributes to a rise in

the country's output. A financial or other resource commitment made now with the expectation of future returns is called an investment.

"An investment is the commitment of funds made in the expectation of some positive rate of return," state J. Jordan and Donald E. Fisher. The return on an investment made correctly will match the risk that the investor takes on."

The primary focus of our research is investment in the security market. Stock market investments may only be profitable if they are made after carefully weighing the benefits and drawbacks of each security. The investor's emotional goal and the quantity of money to be invested were also factors in the investment.

Investment Alternatives

The stock market offers a vast array of investing options. The options that are so offered vary depending on what they are. Prospective investors have a plethora of options from which to select the one that best fits their needs. He or she should only pursue investing alternatives after thoroughly researching them. Generally speaking, investment may be identified as:

a. Real investment i.e. investment on tangible assets such as land buildings.
b. Equity: Common stock and preferred stock.
c. Short-term debt.
d. Intermediate and long term debt.
e. Hybrid Security.
f. Warrants, convertibles and options.
g. Derivatives securities.
h. International securities.
i. Other investment alternatives.

Common Stock

The focus of this research is on investing in common stocks among the numerous types of securities that are presented. The residual owners of a firm are its common stockholders, who have the right to income and assets only after preferred stock holders and creditors have received their full payment. Because of this, the return on investment for shareholders is less guaranteed than the return for preferred or leader stockholders. Conversely, the authorization of a common equity share can occur with or without par value. The par value of shares has no

bearing on the economy; it is just a stated amount in the company charter. Verify our findings with the fact that an increasing number of insurance businesses are listed with NEPSE each year.

Risk and Return

Risk is the potential for encountering danger or experiencing damage or loss. When it comes to investments, risk entails unanticipated and undesirable results that might be detrimental to the company. Risk associated with investments is the likelihood of receiving a return that is lower than anticipated. One of the biggest risks for stock market investors is uncertainty. Common stock is seen as a dangerous investment. A company's ultimate owners are its common stockholders. Common stock investors anticipate a larger return on their investment. However, their anticipated gains could not materialize. A significant danger for stock market investors is this unpredictability. Different hazards, such as financial and business risks, are present in company and can result from both internal and external reasons.

The primary goal of investing is return, and this comes with a certain amount of risk. The primary focus of finance is financial risk and return, which has a significant impact on everyone from small businesses to huge individuals. The revenue from an investment is known as the return. Individuals invest their possessions in the hopes of recovering part of their money. The only thing they do is invest in those chances where the return is larger. Investors choose investments that offer higher returns because they want to see a positive return on their investment. The dynamic aspect of the economy is insurance, which gathers surplus money and allocates it to areas in need. It is a component of industry, trade, and commerce as well.

Portfolio

A portfolio is just a set of two or more stocks together. The calculation of future risk and return when owning different combinations of individual assets is taken into account in portfolio analysis. Investment in two or more assets is known as portfolio building or fund diversification. The goal of portfolio construction is to reduce risk and maximize profit. Building an investor's portfolio in a way that somewhat reduces risk is known as diversification. The goal of portfolio analysis is to create a portfolio with the highest possible return at the acceptable level of risk for investors.

Portfolio analysis takes into account estimating future risk and return while owning different combinations of a person's securities. Although portfolio variation might be less than a weighted average security variance, portfolio anticipated return is the weighted average of the expected returns of the individual securities. Consequently, an investor may be able to lower portfolio risk over time by adding an asset to the portfolio that has a higher individual risk than the others.

1.1.1 Profile of Sample Organization

Premier Insurance Company

Insurance firms and other institutional investors spread the risk by holding assets in inventory. In Nepal, a number of institutions assist in gathering idle funds from the general population and directing them into the productive sector. Insurance providers are included in this group as well. Insurance is a contract in which one party agrees to pay the other party a set amount of money in the case of a specific occurrence, or to protect the other party from any loss, in exchange for a monetary payment known as a premium. In both personal and professional spheres, there is risk. The insurance firms' goal is to provide protection against this kind of risk. Insurance providers exist to make up for any potential losses. An insurance firm does not eliminate risk of loss; instead, it disperses the risk around the community to make up for any losses. Insurance is actually a kind of social security. It aids in safeguarding a certain economic bracket. It has been incredibly popular in the uncertain times we live in today.

After 2025 B.S., insurance businesses in Nepal began to grow properly. Under the Insurance Company Act of 2025 B.S., insurance firms are registered. Since then, the number of insurance firms offering services to the general public has grown quickly, indicating that these businesses are significant and helpful in people's daily lives. The public has accepted this reality, as can be seen. They are now treating it with great seriousness. Life insurance allows for long-term investments, whereas non-life insurance often has a one-year expiration date. This research will concentrate on insurance businesses that are included in NEPSE. However, owing to time and data availability limits, we have not included all insurance businesses registered in NEPSE. We trust that the insurance companies we have chosen for this study will accurately reflect all other NEPSE listed insurance companies.

Everest Insurance Company

In 1992, Everest Insurance business was founded as an insurance business (2048 B.S.). NEPSE listed the office as of 12/20/51 B.S. (1995 A.D.). The company's primary goal is to do life and non-life insurance business throughout the nation. This firm has Rs. 100,000,000 in authorized capital, Rs. 30,000,000 in issued capital, and Rs. 30,000,000 in paid-up capital. According to its annual report for 2078, EIC has 300,000 shareholders and a paid-up value each share of Rs. 100, along with a par value per share of Rs. 100.

Himalayan General Insurance Company (HGIC)

In accordance with the company laws, HGIC was founded in 1988 A.D. (2044 B.S.) and went public on NEPSE on 10/13/50 (1994 A.D.). The company was founded in November 1993 A.D. with the goal of conducting non-life and reinsurance business from insurance boards in accordance with the Insurance Act of 1992.

This firm has Rs. 160000000 as authorized capital, Rs. 120000000 as issued capital, and Rs. 100800000 as paid up capital. Each share has a paid-up value of Rs. 100 and a par value of Rs. 100. Additionally, its annual report from 2078 states that it has 100800 stockholders.

United Insurance Company (UICL)

In order to provide non-life insurance in the areas of fire, machinery, vehicles, and miscellaneous insurance, United Insurance was founded in 1992 A.D. (2049 B.S.). In 1994 A.D., the firm was listed on NEPSE, or 51/01/17B.S. This firm has Rs. 150000000 as authorized capital, Rs. 120000000 as issued capital, and Rs. 72000000 as paid up capital. According to its annual report for 2021, UICL has 720000 shareholders, a paid-up value per share of Rs. 50, and a par value of Rs. 100.

National Life and General Insurance Company (NLGIC)

In accordance with the Company Act of 1964, National Life and General Insurance Company Limited was founded in 1985 A.D. offering insurance services in the life and non-life sectors is the company's primary goal. The firm has 20000000 as its authorized capital, 120000000 as its issued capital, and 19985840 as its paid-up capital. There are 3381 shareholders, the share has a par value of Rs. 100, and its paid-up value is also Rs. 100.

1.2 Problem Statement

This research attempted to examine the issue that individual investors confront as a result of incomplete knowledge and information while also attempting to address the shortcomings of those who are concerned about the stock market's improper development. The number of public limited firms is growing quickly, but the proportion of investment opportunities has not kept pace. The market capitalization has quickly increased due to the quick growth in the quantity of money generated, the number of investors in the primary market, and the growing number of listed securities. This suggests that the capital market in Nepal has a bright future.

The investors' approach to investing hasn't changed. When considering an investment, they continue to rely on word-of-mouth marketing and the advice of friends. They don't make an effort to learn more about the company whose shares they plan to buy in. According to earlier studies, the majority of Nepalese investors place their money in a single investment rather than a portfolio of securities to optimize return at the lowest possible risk.

Since investors are the primary sources of funding for businesses, corporations have been showing less care and even indifference for them in our current environment. Although common stock is considered a dangerous security for investing purposes, we may lower the associated risk by utilizing financial tools and techniques. The availability of information might boost investor confidence and make stocks an alluring investment option. Conversely, the idea of a portfolio serves to lower risk. However, the question of whether investors have access to enough information and if they are capable of evaluating the risk and return of a certain company emerges.

Simultaneously, there are no independent organizations that offer the data needed to make a logical choice that can hasten stock investment and increase market efficiency. When it comes to encouraging common stock investing, government policy is less supportive. Additionally, government policies are unable to provide an appropriate and attractive investment climate that would entice investors to make investments in this sector. The nation's sole stock market is not being seriously regulated by the government. Policies from the government also appear to benefit corporations over private investors. Due to the dearth of investment opportunities for individual investors, all responsible sectors

must work together to expand the pool of available investment options and disseminate market knowledge.

The following key concerns are the subject of the study:

- How can the risk and return of a stock investment be calculated?
- What is the overall risk of a single stock into systematic and unsystematic risk, examine how they relate to return on stock, and determine if they are consistent ?
- What are the risk structures, or parts of total risk, of insurance firms' common stock?

1.3 Objectives of the Study

Examining the risk and return of investing in insurance firms' common stock is the main goal. The following are the precise goals:

- To assess the risk and return related to listed insurance firms' stocks.
- To examine the overall risk of a single stock into systematic and unsystematic risk, examine how they relate to return on stock, and determine if they are consistent.
- To analyze the risk structures, or parts of total risk, of insurance firms' common stock.

1.4 Rationale of the Study

These days, every choice is made with the economy's finances in mind, as they constitute a significant sector. As previously mentioned, a primary focus of the research is prospective investors who desire to participate in the securities market but are dissuaded by the perception of unrealistic risk. Therefore, the study will be more important for investigating and growing stock investing. It won't make much of an impact on the growth of the stock market either. The Nepalese stock market has a lot of potential, which may be realized by improving information flow, openness, and the analytical skills of public stock investors.

This research will raise knowledge regarding the use of investors' limited resources and assist in determining the risk and return trade-off for their investment. The underlying idea and circumstances surrounding the risk and return of Nepalese investments will also be covered. Using a variety of analytical methodologies, the sampled firms' common stock's risk and return are assessed. Additionally, it won't make much of an impact on the growth of the Nepalese stock market.

In addition to helping investors, this work will be valuable to several other scholars studying investment and asset management, and it may also be advantageous to the relevant businesses.

1.5 Limitations of the Study

The following are the study's limitations:

- The focus of this study is Nepalese insurance companies' risk and return analyses.
- The following insurance companies are included in the study: Premier Insurance Company, Everest Insurance Company, Himalayan General Insurance Company, United Insurance Company, and NNG Insurance Company.
- The research is predicated upon secondary data.
- The analysis includes data spanning ten years, from 2021–2022.

CHAPTER-II
REVIEW OF LITERATURE

2.1 Introduction

Reviewing the literature entails looking into research papers or other pertinent claims made in connected fields of study in order to become aware of all previous investigations, their shortcomings, and their findings, and to plan future research. It is a necessary and essential step in the study process.

In the chapter titled "Review of Literature," scholars examine books, journals, periodicals, and other publications that are pertinent to their field of study. Reviewing the material will enable us to do our studies with the appropriate focus and depth of understanding. A review of the literature aids in issue identification, prevents unintended replication of earlier research, and facilitates the process of interpreting the importance of study findings.
There are three sections in this chapter. The conceptual framework is covered in Part I, journal article reviews are covered in Part II, and early theses on the topic are reviewed in Part III.

2.2 Theoretical Review

This section reviews a number of books that are relevant to the subject and can help readers gain a good understanding of risk and return. This section's goal is to learn about the definitions and descriptions of risk and return provided by different authors. Their primary area of interest is the relationship between risk and return while investing in common stock.

2.2.1 Investment

Investing is just giving up present money in exchange for a potential future return or profit while taking some risks. Real assets or financed assets may be invested in. Financial investment refers to an investment made on finance assets; real investment refers to an investment made on actual assets.

"In its widest definition, investment is the exchange of present dollars for future ones. Usually, there are two distinct attributes: danger and time. The sacrifice is definite and occurs

in the here and now. The benefits are typically unknown in size and occur later, if at all." In Sharpe (2015).

While most investments in the current economy are financial in nature, most investments in prehistoric economics were of the real sort.

"An investment is a financial commitment with the hope of earning more money. Every investment involves some risk as it exchanges a known present loss for an unknown future gain (Francis, 2019).

Investing or speculating in the stock market has all the elements of a game, with winning being the ultimate goal. Making an investment requires emotional processing. In order to maximize their long-term profits, investors place their money into securities. An investor has access to a wide choice of investment opportunities, yet investing always includes making judgments whose outcome cannot be foreseen. One can invest in bonds, common stock, preferred stock, convertible bonds, warrants, options, and more. The current analysis solely considers investing in common stocks among other options.

Investment Portfolio

Typically, a portfolio is described as a collection of assets. It is the securities collection. A portfolio is an investor's or institution's list of securities that they possess. A portfolio is only an illustration of the practice of investors spreading their money across many assets. A portfolio is an assortment of investment assets (Weston & Brigham, 2014).

Investment Alternatives

There are various investment alternatives for investors.

Table No. 2.1: Investment Alternatives

1.	Equity securities	• Common Stock • Preferred Stock
2.	Short term debt securities	• Negotiable certificate of deposit • Commercial paper • Banker's acceptances • Treasury bills
3.	Intermediate and long term debt securities	• Government securities - Treasury notes - Treasury bonds - Saving bonds • Agency securities • Municipal securities - Revenue bonds - General obligation bonds • Corporate bonds
4.	Hybrid securities	• Convertible preferred stock • Convertible bonds
5.	Derivative securities	• Options • Community features • Financial features • Options in features • Rights • Warrants
6.	Real assets	• Precious metals • Real state • Collectibles
7.	International investment	• Multinationals corporations • Foreign stocks traded all local exchange • American depository receipts
8.	Other investments alternatives	• Pension funds • Mutual funds • Closed end companies

Sources: Weston & Brigham (2014)

Investment of Securities

A legal document demonstrating an ownership interest is called a security. It is the legal representation of the ability to purchase or sell ownership interests as well as the potential to obtain future rewards subject to certain restrictions. Common stocks, preferred stocks, warrants, convertibles, shares, debentures, and any other financial certificates that the corporations offer to the public are all considered securities. Securities certificates are transferable from one person to another and are issued at a fixed price known as par value.

just put, securities are just promissory notes that businesses issue to investors in exchange for loans or shares denominated in particular rupees. There are a tonne more types of securities that may be bought. Common stock, preferred stock, bonds, warrants, convertibles, treasury bills, and so on are a few examples. Common stocks, or equity shares, seem to be the most romantic of all the assets; nonetheless, most investors seem to be more interested in equity shares, even if fixed income investment revenue may be more valuable to them. It is understandable that equity investing is a popular topic of discussion at parties and get-togethers given the possible benefits and drawbacks of stock shares (Chandra 1996).

2.2.2 Common Stock

It has to be made explicit because the research is about insurance firms' common stock. A corporation sells shares of its stock to the public whenever it needs money for growth, hiring new employees, developing new products, and other reasons. One definition of common stock is shares in the company. In reality, common stockholders own the commercial enterprise. Bonds and preferred stocks are less risky than common equities, but common stocks still provide advantages including the ability to vote and profit sharing. Additionally, common stock can be bought and traded right away.

"A corporation that owns common stock has agreed to pay a quarterly cash dividend, as determined by the board of directors, on behalf of the company. A business may guarantee an investor's fund a portion of the company's profits. There is no irreversible guarantee made, nor anything committed. The company pays its directors whatever they think is acceptable from time to time. Nonetheless, the investor is granted the opportunity to serve on the board of directors in order to guard against grave misconduct. A share of common stock, which the investor may sell to another person so they can exercise their property rights, serves as a representation of the investor's right. Common stock holders are considered company owners and have the ability to theoretically oversee the company's operations through the board of directors (Sharpe, 2015).

A corporation's ownership position is represented by common stock. It is a residual claim in that payments to preference shareholders and creditors must be made before any payments to common stockholders are made. Because of this, the return on investment for shareholders is less assured than the return to a loan or a preferred stock holder. Because of this, common

stock has the highest risk and reward. The proposal is romantic and thrilling because of the possible rewards and penalties related to the common stock. A common stockholder may only lose their original investment in the event that the company is liquidated. Common stock, often referred to as equity, is typically referred to as risk bearing stock because it does not provide dividends in the beginning. They get payments during liquidation, but they also have the right to keep any assets that remain after creditors and preference shareholders have been paid.

A corporation's ownership interest is represented by its stock; each share of stock represents a portion of the privileges and rights enjoyed by the company's owners. A certificate of stock attests to such partial ownership. It is concrete proof. A title certificate pertaining to a portion of the business (Henderson et al., 2017).

"Common stock seems to be the most romantic type of assets out there. For the majority of investors, which fixed income investment revenue could be more significant? What primarily piques their attention is common stock. It's understandable that investing in common stock is a popular topic of conversation at parties and get-togethers given the possible rewards and penalties connected with it (Prasanna, 2016).

The corporation's owners are its common stockholders. Common stockholders have various rights as owners; the most significant being (i) the ability to vote and (ii) the ability to partake in profit distribution. Common stock is seen by the corporation as a means of raising money. From the perspective of the investor, owning stock provides prospects for profit sharing when a dividend is given, as well as for capital growth and company appreciation (Bradley, 2020).

Therefore, from a financial perspective, common stocks are riskier than both bonds and preferred stock. Owners of equity shares have a number of rights. In addition to the ability to vote, he or she also has the right to dividends, the right to receive an offer of shares, the right to a bonus issue, and the right to certain tax benefits. Common stock investments are very liquid as they may be bought and traded right away. Even when investors own a portion of the company, their responsibility is only as much as what they invested. The most prevalent and alluring investment among investors is common stock because of its many benefits.

2.2.3 Return

Return is the compensation an investor receives from an investment for giving up a specific amount of asset now. It is frequently described as compensation for taking on risk. The main motivation for every investment is return. It is the most crucial result of any financial venture. It gauges how quickly an investment is accumulating money, or how much their wealth has increased or decreased. Return is the whole profit or loss on an investment over a certain time frame. It is also known as the rise in the investment's value after taxes.

"A desired return consists of both the capital gain or loss and the dividend yield. A probability distribution for the relative frequency of a firm's yearly return is a relationship between various levels of return on their respective frequencies that is obtained by examining the firm's historical returns from the prior year. However, history seldom exactly repeats itself, as we are aware. Thus, following a review of the relative historical return frequencies for each specific firm. Based on historical data, industry studies, the forecast for the business within its industry, and other factors, we may create a probability distribution (Weston & Brigham, 2018).

The whole gain or loss incurred by the owner during a specific time period, as determined by dividing the asset's change in value plus any cash distribution made during the period by the investment value at the start of the period, is known as the return.

Returns come in a variety of forms, including capitalization, holding term return, return from speculation, return from short sales, etc. When investing for a year or less, holding period rate of return is helpful; nevertheless, for longer periods of time, rate of return works better as an investment yield. Income and price growth are the two sources of return. Investment choices influenced by future expectations. The return from holding an investment over some period- say- a year is simply cash payments received due to ownership plus the change in market price divided by the beginning price. Consequently, there are two sources of revenue return: income plus any price appreciation (or loss in price) for common stock defines one period return as:

$$R = \frac{(P_t - P_{t-1}) + Dt}{P_{t-1}}$$

where Dtis the cash dividend at the conclusion of time period t; R is the actual (Expected) return when t refers to a certain time period in the past (future); The stock price during time period t is denoted by Pt, while the price at time period t-1 is denoted by Pt-1. It should be noted that this technique may be used to calculate predicted one-period returns based on future expected prices and dividends, as well as actual one-period returns (based on historical figures). Furthermore take notice that the term included in parentheses in the equation above denotes the capital gain or loss for the given time (Van Horne and Wachowicz, 2001:94).

Because it enables us to evaluate the amount of actual or predicted gain offered by different assets, return is the most important factor when making investment selections.

Expected Return: In place of past behaviors, it may also be utilized in the decision-making process for investments. What an investor should be willing to pay for a security is determined by your projection of the stock bonds' future earnings (in terms of dividends, interest, and capital gains).

"Of all the forms of securities common stock appears to the most romantic while fixed income Investment Avenue expected return."(Page 177 of Sharp, Gordon, and Bailey, Fifth Edition)

"A normal investment yields two types of returns. The fundamental element is the regular cash reception (or income) from the investment, which might take the form of dividends or interest. The second element is the shift in asset prices, sometimes referred to as a capital gain or loss. The difference between the asset's purchase price and its sale price is the element of return that might result in a gain or loss.

One or more cash payments sent at predetermined intervals make up the income from an investment. Dividends on common stock are typically paid quarterly, although interest payments on most bonds are paid semiannually. These payments are unique in that the holder of the assets receives cash payments from the issuer.

The word "yield" is frequently used in conjunction with a price for a securities. The acquisition price of the security is the relevant price for our purposes. When purchasing a $ 950 bond with a par value of $1,000 and a 6% coupon, the yield is 6.31 percent ($601, $ 950). A common stock bought for $50 per share that pays $2 in dividends annually has a 4%

yield. It is important to keep in mind that yield is typically not the appropriate indicator of return on an asset. It is also necessary to take the capital gain or loss into account (Fisher & Jordon, 2016).

2.2.4 Risk

Risk is the unpredictability around an investment's end-of-period value. The factors that determine the securities' valuation are risk and return. However, risk implies that, although we sometimes have a clear understanding of the range of possibilities, we do not know what will really happen. Risk is the possibility of harm or loss as well as a hazard and risk. Therefore, the majority of risk relates to the possibility that an adverse occurrence would transpire; nevertheless, some see risk as a likelihood of loss associated with a specific action or event. Risk is the product of all possible outcomes and their distribution, each stated with a probability attached to it.

"The decision maker's incapacity to produce precise projections gives rise to risk. Since the future events that forecasts are based on are unpredictable, forecasts can be produced with accuracy or confidence. If we can identify a distinct cash flow sequence for an investment, then it is not considered hazardous. However, there is risk associated with investing since we cannot predict with confidence when potential future occurrences will occur. The variability that is expected to occur in the investment's future returns may be used to determine the risk associated with it. Accurately estimating future profits is impossible if an investor purchases firm shares. According to Pandey (2019), the return might be negative, zero, or a very substantial amount.

Risk is a major consideration when analyzing investments. An investor may be exposed to a variety of risks, including those related to interest rates, finances, businesses, management, markets, currencies, and asset classes. In every kind of investment, risk is almost certain to arise, but careful research may help us reduce it to some degree. "In general, risk is defined as the likelihood that adverse events may occur. However, the notion of danger varies depending on the situation. As an initial measure of return and risk, two significant innovations from the probability distribution have been used in our setting (Weston & Brigham, 2018).

Risk is essentially the possibility of suffering a financial loss. More firmly, assets with a higher probability of loss are perceived as riskier than those with a lower probability of loss; the term "risk" is used interchangeably with uncertainty to refer to the return variability associated with a particular asset. There is less fluctuation and hence less risk associated with investments whose returns are more assured (Prashan, 2016).

Risk is the possibility that an investment's actual return will differ from what was anticipated. Risk is a crucial component of investment analysis. Investors frequently want to know how much risk they will be taking on overall and whether the risk premium offered is sufficient.

Every investment has some level of risk due to the uncertainties involved. To put it plainly, risk is just uncertainty. Uncertainty is commonly defined as risk. It results from incomplete data or from inadequate information. The degree to which each individual rate of return deviates from the average rate of return can be used to characterize the return's variability. Measures of dispersion exist.

2.3 Empirical Review

Gaire (2013) used yearly data from 1997 to 2010 in an effort to examine the link between the non-agricultural sector and the insurance business in Nepal. This study set out to examine the connection between insurance in Nepal and the non-agricultural economy. Unit root testing, co-integration testing, Granger causality testing, and the ordinary least squares regression analysis approach have all been used to achieve this aim. The study's findings made use of the asymptotic technique for parameter testing and estimate related to the country's economic growth and the insurance industry's development. The empirical outcome of the co-integration tests unequivocally demonstrates that, in comparison to real GDP from non-agricultural sources, there is a long-term link between the total premium collection and the resources/liabilities of the Nepali insurance business.

Bagchi (2013) discovered a negative correlation between the profitability of enterprises and the indicators of liquidity management. According to Vodova (2013), a bank's liquidity has a positive correlation with profitability and a negative correlation with both the bank's size and interest margin. According to Al-Tamini and Obeidat (2013) and Lartey et al. (2013), profitability and liquidity management are positively correlated. Similar to this, Ericsson and

Renault (2005) created a structural bond valuation model that accounts for both credit risk and liquidity at the same time. The model suggests that the illiquidity of the distressed debt market affects renegotiation in times of financial hardship.

Ojha (2015) conducted research on Himalayan Bank Limited's (HBL) and Everest Bank Limited's (EBL) investment policies. Study goals included comparing total investments, deposits, loans and advances, net profit, and assets; assessing the liquidity, asset management, efficiency, profitability, and risk aspects of both EBL and HBL; and analyzing the deposit utilization trend and projecting it for the next five years for both HBL and EBL. The data was analyzed by the research using trend analysis, mean, CV, and financial tools including activity ratios, risk ratios, and profitability ratios. According to the results of these investigations, EBL had a relative superior liquidity situation than HBL. According to the study's findings, EBL outperformed HBL in terms of cash and bank balance to total deposit and cash and bank balance to current assets.

The study by Basaula (2015) was founded on primary data. In descriptive studies, the researcher used statistical methods to acquire quantitative data. The information derived from the quantitative data was subjectively examined in order to produce conclusions about the life insurance trend and the impact of claim settlement techniques in Nepal. Examining how life insurance companies (LICs) in Nepal handle claims was one of the study's goals. To determine how much of the overall risk is unsystematic and systematic by analyzing the maturity claim, survival benefits, and death claim settlement of LICs.

According to Purani (2017), life insurance is a contract between the policyholder and the insurance provider that ensures the greatest possible survival for the remaining family members. In the event that policyholders have taken out enough insurance to cover the value of their human lives, dreams come true. Life insurance firms provide a variety of policies, including term, endowment, pension, health, retirement, and child education plans. An individual may choose a plan depending on their future plans and age requirements.

In order to determine each insurance company's link to the industry index and determine the price of common stock using the CAPM approach, Maharjan (2018) looked at the risk and return of investing in common shares of insurance companies. The study's summary. The

projected rate of return for the insurance industry is expressed as a percentage, along with a percentage standard deviation and a percentage coefficient of variation for the insurance index. While the common stock of National Life Insurance Company Ltd (NLIC), United Insurance Company (UIC), and Surya Insurance Company (SIC) is cheap, the common stock of SICL and NLICL is overpriced. The analysis of the optimal portfolio creation between SIC and UIC indicates that the optimal portfolio is produced by investing in 50% and 50% of SICL and UIC common stock, respectively.

According to Kandel's (2018) research, risk and return have a positive correlation when taken into consideration. The majority of investors avoid taking risks. Instead of investing in a single security, it is suggested to build a suitable portfolio, which can help to lower unsystematic or diversifiable risk. Utilizing scientific methodologies, analyses, both quantitative and qualitative, have been conducted. Following a review of the sample bank's risk and return, it is determined that all commercial banks have very variable rates of return and are thus extremely dangerous. The beta coefficient of each sample bank indicates that NABIL's C.S. appears to be significantly more volatile than that of NIBL stock. It was also discovered that a significant amount of unsystematic risk exists in both of the chosen banks.

Venkatesh and Reddy (2018) came to the conclusion that the investor should use this study to get the money he invested in the market. In order to reduce risk and optimize profits, the investor should be able to analyze the range of investment possibilities that are open to him. Investors can assess a stock's riskiness by comparing the systematic risk of other equities using beta. These computations lead us to the conclusion that investors ought to be informed about market movements in order to choose the finest businesses in which to place their money.

Pant and KC (2018) investigated how long-term investments are made possible by capital amassed from people's cumulative savings. This process facilitates risk transfer for the economic progress of a nation. This paper's primary goal is to investigate how insurance has aided Nepal's economic development by using factors such as employment, investment, life and non-life insurance premiums, and total insurance premiums. The results of this study demonstrate a favorable contribution to various investment levels and investigate the connection between insurance and economic expansion.

In order to determine the insurance industry's economic contribution to Nepal, Kharel (2019) conducted research. The study's goal is to look at the insurance industry and assess how it affects Nepal's mobilization of financial resources. The gathered data has been analyzed using basic statistical methods. The study's conclusions highlight the necessity for the financial sector to pay greater attention to the growth of the insurance industry and its role in mobilizing capital.

Some of the key ratios utilized in the insurance industry to determine the insurance leverage and capital surplus ratio of an insurance business have been addressed by Ishtiaq and Siddiqui's (2019) study. This study aims to determine the correlation between these factors. This study also uses the inflation component, which is substantial and positively correlated with profitability, to determine profitability. The impact of inflation on the company's profitability varies. Because of the benefits of inflation to the corporation, nominal revenue will decline, which will aid in the company's debt repayment. The true value of the debt will decline, which will lower the loan's payoff value and have an impact on profitability. However, it may also have a negative effect and increase demand; however, as life insurance firms offer services, this will also work to their advantage. Previous studies did not cover the whole life insurance market; however, this analysis includes all life insurance firms as of this writing.

K. Suryanarayana (2020) conducted research on the complex process of projecting future returns, given the uncertainty of the future. This involved estimating several return components, such as internal and external market circumstances. This study aims to determine the returns on different investments. The study's conclusion was that more risk equates to higher return; nevertheless, when constructing a portfolio, it is preferable to have a mix of investments with different risks and returns. The study's result aids the investor in selecting assets according to his preferences and age.

Ghimire (2020) conducted research on the state of insurance services provided by various institutions in Nepal. This research aims to investigate the prospects and difficulties faced by the insurance industry, as well as to deliberate on the regulatory and development concerns within this domain. The study's result demonstrates that the insurance sector in Nepal grew slowly over an extended period of time. The paper concludes by stating that social insurance

is crucial and that commercial insurance has a wider reach. The government should take seriously the task of drafting the nation's complete insurance and social security policies, which must be governed by an integrated framework. Along with closely collaborating with academic institutions, the Insurance Board must also give due consideration to the development of competent human resources, research-based rules, and promotion initiatives. An essential component of the financial system, insurance provides steady funding for the capital market and banking industry. The regulatory bodies and market participants need to work together well in order to maintain financial stability and sustained economic growth. The study's conclusion is that these organizations' main objective should be to guarantee the preservation of their clients' rights.

Pradhan (2021) conducted research on Nepalese insurance firms' financial performance. The study's estimated goal was to determine the impact of liquidity management on the financial performance of insurance businesses in Nepal. The outcome shows that return assets and earnings per share are positively impacted by insurance premiums. This indicates that a rise in insurance premiums raises earnings per share and the return on assets.

Joshi et al.'s study from 2023 looks at the variables affecting life insurance plans in Nepalese insurance firms' post-purchase satisfaction. After a client purchases a policy, it evaluated the correlation between agent conduct, customer service, corporate trust and image, and client satisfaction with NICs. This research uses convenience sampling to gather data from the Kathmandu Valley. This is meant to show how an organization's reputation affects policyholder happiness, agent conduct, and customer service quality.

A research by Upadhyaya et al. (2024), the non-life insurance market in Nepal has enormous potential to spur economic expansion and help the country move toward financial stability. Finding out how Nepal's non-life insurance industry may boost economic growth is the goal of this study. This study's approach use econometric modeling and quantitative analysis of financial data from 20 non-life insurance businesses in Nepal from 2013 to 2022 to evaluate the sector's influence on economic growth. The study concludes that Nepal's non-life insurance sector has the ability to contribute to the nation's economic prosperity.

Table No. 2.2

Summery of Empirical Review table

Author's Name/Year	Research Title	Objectives	Findings
Gaire , (2013)	Insurance industry and non-agriculture sector of Nepal.	To analyze the relationship between Nepalese insurance and non-agriculture sectors.	To utilized asymptotic method in estimation and testing of parameter of the development of insurance industry and economic growth of country.
Bagchi, (2013)	A negative relationship between the measure of liquidity management and firms' profitability.	To relate the positive relationship between liquidity management and profitability.	Bank's liquidity is positively related to profitability and negatively related to size of bank and interest margin
Ojha, (2015)	Investment policy of Everest bank Limited and Himalayan bank Limited.	To find out the relationship between total investment, deposits, loans and advance etc. of EBL and HBL.	The finding of this studies, the liquidity position of EBL was comparatively better than HBL.
Basaula, (2015)	Claim settlement practices of life insurance companies in Nepal.	To explore the claim settlement practices of life insurance companies in Nepal.	To analyze maturity claim, several benefits and death claim settlement.
Purani, (2017)	Life insurance-growth engine of society.	The agreement between policy holder and insurance companies provide assurance to the family member to survive best.	To fulfill the dream in the absence of policy holder when policy holder have taken sufficient insurance of their life value.
Maharjan (2018)	Risk and return on	To develop the	The common stock

	common stock investment of commercial banks.	relationship between insurance company and industry index to assess the price of ordinary stock using the CAMP technique.	of SICL and NLICL is overvalued, whereas the common stock of SIC, UIC and NLIC is undervalued.
Kandel (2018)	Risk and return analysis of commercial banks in Nepal.	To reduce unsystematic or diversifiable risk.	The C.S of NABIL is very much volatile than NIBL and both bank have high proportion of unsystematic risk.
Venkatesh and Reddy (2018)	A report on risk and return analysis of insurance sector.	To develop the capability of investor to analyze the investment option to minimize the risk and maximize return.	To provide option for investor to select best companies to invest their funds.
Pant and KC (2018)	Contribution of insurance in economic growth of Nepal.	To examine the contribution of insurance in economic growth of Nepal.	To show positive contribution to different level of investment and to examine the relationship between insurance and economic growth.
Kharel (2019)	Contribution of insurance business in Nepal.	To investigate insurance business and examine its contribution on financial resources mobilization in Nepal.	To emphasize the development of insurance business and its contribution mobilizing in financial sector.
Ishtiaq and Siddiqui (2019)	Factor affecting financial	To find the relationship between	To find the profitability which is

	performance of Life insurance sector in Pakistan.	insurance leverage and capital surplus ratio.	significant and positively related to probability.
K. Suryanarayana (2020)	A study on risk and return and their relation in various investments.	To find out the returns on various investment.	To observed that if there is more risk there is high return but while building a portfolio it is better to have a combination of investment with various returns and risks.
Ghimire (2020)	Situation analysis of insurance services in Nepal.	to explore the opportunities and challenge of insurance sector and also discuss the regulatory and development issue in insurance sector.	Shows that Nepalese insurance industry experienced slow growth over the long period.
Pradhan (2021)	Financial performance of Nepalese insurance companies.	To test the significance and importance of liquidity management on financial performance of Nepalese insurance companies.	The insurance premium has positive impact on return assets and earning per share.
Joshi et.al (2023)	Post-purchase satisfaction of life insurance policies.	To demonstrate how a company's reputation influence policy holder satisfaction, how	To assessed the relationship between agent behavior, customer service and company trust and

	agent behave and how will they treat consumers.	image.	
Upadhyaya et.al (2024)	Contribution of the non-life insurance sector to the economic growth of Nepal.	To determine how the non-life insurance sector can drive economic growth in Nepal.	To determine the potentiality of Nepal's non-life insurance industry contribution to economic growth of country.

2.3.2 Review of Thesis

In this case, many theses are reviewed Ghimire (2014) has two goals for his study. Firstly, he looks at the trend in income distribution. Its second goal is to verify whether there are any substantial differences between older and younger enterprises' financial performance and revenue structure. Methodology: For a five-year period (from 2007/08 to 2011/12), data from the financial statements of eight life insurance firms were used in this study.Results: This study shows that while a firm's age affects its income structure, it has no impact on its profitability or earnings. The study's primary contribution to our understanding of life insurance businesses' revenue structures and their link to profitability is that it sheds light on the disparities in the financial performances of younger and older organizations.

Manandher, (2015). "A Study on Risk and Return Analysis on Common Stock of Listed Commercial Bank in Nepal" . Analyzing risk return and other pertinent factors that aid in decision-making about investments in securities of listed commercial banks is the primary goal of the study. Additional specific goals of the study included assessing the risk and return of listed commercial bank common stock, comparing sectors based on market capitalization, determining whether commercial bank shares are overpriced, underpriced, or at equilibrium price, determining the relationship between commercial bank returns, building the best possible portfolio out of listed common stock, and formulating actionable suggestions and ideas according to research findings. The study's conclusions state that, of all securities, common stock is known to be the riskiest; the higher the risk, the higher the return. As a result, the majority of investors are drawn to common stock securities due to their higher

expected returns. However, it is crucial for investors to evaluate each investment carefully because, on average, the potential returns from an investment should offset the level of risk assumed.

Research on "Risk and Return Analysis of Selected Finance Companies Listed in Nepal" was carried out by Tiwari (2016) with the express goal of analyzing the risk and return related to the common stock of six finance businesses. These include Peoples Finance Co. Ltd., Ace Finance Co. Ltd., Citizen Investment Trust, Samjhana Finance Co. Ltd., National Finance Co. Ltd., and Kathmandu Finance Co. Ltd. The information gathered from the secondary source served as the foundation for his investigation. The primary source of the majority of the data used for the study is Nepal Stock Exchange (NEPSE) Ltd. He has employed a number of statistical methods, including basic liner regression, in addition to other financial instruments, to analyze the data. He discovered that all finance companies had positive expected returns and that the majority of them had returns that were close to the average. One of the most crucial factors to take into account when deciding on an investment strength is the risk-return ratio that you are comfortable with; all investments involved some risk (standard deviation), and the majority of finance companies had returns that were lower than the average. Investors should diversify their funds to lower risk with the aid of the optimal portfolio concept; it is preferable to buy rising assets and sell falling ones.

A study on "Risk and Return on Common Stock Investment of listed Commercial Banks in Nepal" was carried out by Sharma (2016). This study's main goals are to evaluate, using specific methodologies, the risks related to the return on an investment in common stock. The other specific goals of this study are to investigate the risk and return of listed commercial banks' common stock, assess the risk and return of particular portfolios, assess the relationship between an individual stock's risk and return and the market, investigate the systematic and unsystematic risks related to security, and offer recommendations and ideas for improving the chosen banks. According to the study's findings, a stock investment's return is its income, which is often reported as a percentage. EBL appears to have the highest return (81.35%), which is the largest among the chosen banks, while HBL (31.34%), the minimum among the chosen banks, appears to have the lowest return. Risk is defined as the standard deviation of returns, which varies over time. The most dangerous component of EBL is its C.S. based on Standard Deviation. Among the chosen listed commercial banks, HBL's C.S. is

the least dangerous due to its lowest S.D. (i.e., 18.12%) and maximum S.D. (110.34%). By examining the C.V., it is discovered that, out of the chosen listed commercial banks, EBL's C.V. (i.e., 135.64%) is the greatest and HBL's C.V. (i.e., 57.82%) is the lowest. We are aware that the coefficient of variation, which calculates the risk per unit of return, provides a more logical foundation for investing decisions. Out of all the banks under study, HBL's C.V. C.S. is the finest. HBL offers a risk-to-return ratio of 0.5782. However, C.S. Of EBL has a risk-to-return ratio of 1.3564. All banks have positive correlation coefficients, indicating a high level of positive association between them.

Assessing the risk and return on listed commercial banks' common stock investments is the primary goal of a research conducted by Neupane (2017) titled "Analysis of Risk and Return of Commercial banks." The study's specific goals were to analyze common stock in terms of risk and return, determine whether the stocks of particular commercial banks are overpriced, underpriced, or at equilibrium, determine the banks' ideal portfolio, and assess the banks' diversifiable and diversifiable risk. The study's main conclusion was that return, which is often stated as a percentage, is the income obtained from a stock investment. The greatest expected return on EBL's common stock is 52.97%. In a similar vein, the predicted return for NIBL is 37.95% while the C.S. of HBL is 29.52%.Risk is defined as the standard deviation of returns, which varies over time. Common stock of NIBL is the riskiest based on S.D., with a high S.D. of 0.6167. HBL's C.S. is the lowest, with a low S.D. of 0.4671. However, we know that C.V., which calculates risk per unit of return, is a more sensible foundation for making investment decisions. Out of all the banks, EBL's C.S. is the best based on C.V. For every unit of return, EBL has a risk of 1.0392 units. However, the risk per unit of return is largest for C.S. of NIBL based on an interbank market capitalization comparison, NIBL has the greatest position (Rs. 32,001.08 in million) and EBL has the lowest position (Rs. 14525.78 in million). NIBL and EBL have a higher portfolio return of 46.78%, whereas NIBL and HBL have a lesser return of 30.41%.

Maharjan (2018) looked at the return and risk of buying common stock in insurance companies. to determine the position of every insurance firm in reference to the industry index. to use the CAPM approach to evaluate the price of common stock. The study's summary. The projected rate of return for the insurance industry is expressed as a percentage, along with a percentage standard deviation and a percentage coefficient of variation for the

insurance index. While the common stock of National Life Insurance Company Ltd (NLIC), United Insurance Company (UIC), and Surya Insurance Company (SIC) is cheap, the common stock of SICL and NLICL is overpriced. The analysis of the optimal portfolio creation between SIC and UIC indicates that the optimal portfolio is produced by investing in 50% and 50% of SICL and UIC common stock, respectively.

The company's capacity to produce income, manage assets, obligations, and the financial interests of its stakeholders is assessed by the Hamal (2020) assessment. This study aims to ascertain the impact of many company-specific variables on the financial performance of life insurance businesses in Nepal, including firm age, short-term debt, long-term investments, and liquidity ratio. The study's foundation was secondary data from seven life insurance firms that were examined between 2009–10 and 2018–19. The information was gathered from the yearly financial statements released by the chosen life insurance providers, the Nepal Stock Exchange, and the Insurance Board of Nepal. The results showed that overspending on long-term investments needs to be carefully evaluated because it may negatively impact the firms' future profitability.

In their study from 2023, Ghimire and Upadhyaya investigate how financial performance metrics affect nonlife insurance businesses' Return on Equity (ROE) and Return on Assets (ROA). Thirteen nonlife insurance firms were taken into account in the study's methodology, and panel data were examined during a 14-year period (2008–2021). The E-Views software program was utilized to estimate the fixed effects model. The findings of the panel data analysis indicate a significant and positive influence on ROA, accounting for 92.75% of its variation. The findings demonstrate a robust positive correlation between ROA and the following four critical variables: combined ratio, expenditure ratio, retention ratio, and gross premium. This emphasizes how crucial it is to improve components such as the gross premium, retention ratio, expense ratio, and combination ratio in order to increase ROA. The study's conclusion offers helpful information for raising the nonlife insurance industry's competitiveness and financial performance in Nepal. This implies that by concentrating on raising gross premium, retention ratio, expense ratio, and combined ratio, nonlife insurance businesses in Nepal may increase their profitability. The results hold significant ramifications for improving the nonlife insurance sector's competitiveness and overall performance in Nepal.

The research by Gautam and Bangshi (2024) looks at how Nepalese commercial banks' profitability is affected by market capitalization, asset growth, leverage, and company age. The market capitalization, company age, assets growth rate, debt to equity ratio, debt to assets ratio, long-term debt to assets ratio, and short-term debt to assets ratio are the chosen independent variables. The study's foundation is secondary data from 11 commercial banks with 110 observations during 2012–2022 and 2021–2022. The study demonstrated that the return on equity is positively impacted by the debt to equity, debt to assets, and short-term debt to assets ratios. It suggests that a greater return on equity would result from higher debt to equity, debt to assets, and short-term debt to assets ratios.

The research employs financial and statistical instruments. The study's goals were to calculate the risk and return attached to listed insurance firms' equities. to divide the overall risk of a single stock into systematic and unsystematic risk, examine how they relate to return on stock, and determine if they are consistent.

The study's key outcome indicates that EIC's anticipated return and standard deviation are greater than those of other sample insurance firms. Among the others, NLGIC offers the lowest risk and return. However, C.V. is helpful when there are several investments with varying risk and returns. The danger is measured per unit by C.V. PIC's C.V. for common stock is lower than those of other insurance providers. The lower the risk, the lower the minimal C.V. By investing in PIC, an investor must assume 3.674 units of risk in order to receive one unit of return. As a result, PIC has the lowest C.V., or 3.674, making it the ideal option for investors.

2.4 Research Gap

While several earlier studies have undertaken theses on related subjects, there are important distinctions between those studies and the current one. Only the risk and return aspects of certain life insurance businesses were examined from the investor's point of view by the preceding 31 researchers. In order to reduce risk via portfolio creation, this research has attempted to determine the link between the returns of the life insurance firms under investigation. It has also discovered systematic and unsystematic risk for each business, which is an uncommon finding. Based on extremely restricted statistical tools and procedures, several scholars have made their conclusions and calculated the risk-returns of

assets or securities. Variables such as the market price of the stock (MPS), the holding period returns (HPR), and the dividend per share (DPS) are employed. Furthermore, a comparison analysis on life and nonlife insurance firms has been conducted by certain scholars; nevertheless, the focus of this study is solely on life insurance companies.

Out of the 19 life insurance firms registered on the Nepal Stock Exchange, five have been selected for this research. Here, six years that have passed after the previous researcher's work was completed have been analyzed. In order to give insightful analysis and interpretation, it also draws on statistical and financial tools and methodologies which this research uses both descriptive and analytical methods. The purpose of this thesis is to give investors access to more current, accurate, and dependable information so they may draw conclusions more clearly than previous researchers could.

CHAPTER –III
RESEARCH METHODOLOGY

3.1 Introduction

The methodical approach to tackling a research problem is known as research methodology. It speaks about the entire process of research that an investigator undertakes when working on a project. This chapter includes information on study design, population and sample, data sources, data gathering methods, and data analysis tools. Both primary and secondary data can be used as the foundation for research. All of the data used in this study come from secondary sources, and the relevant statistical and financial methods are used to examine the observed data.

3.2 Research Design

In order for well-defined research to achieve its goals, research design is essential. It is the setting up of parameters for data collection and analysis with the goal of balancing procedural economy with relevance to the study goal. A study can be designed in a variety of ways. It acts as the study's framework, directing the gathering and processing of data. The investigation's plan, organization, and methodology are all part of the researcher design.

The data used in this study was taken from sample insurance firms' annual reports throughout a six-year period, from 2067 to 2072. In addition to using an analytical and descriptive research approach, this study is quantitative. It examines the risk and return of five insurance businesses in Nepal and discusses the quantitative technique in further detail. In an effort to determine the ratio of diversified to undiversified risk, this study also looks at portfolio development as a separate entity.

3.3 Nature and Sources of Data

This research used secondary data mostly. Financial Statistics, Trading Reports, Annual Reports, and Statistics are provided by the Nepal Stock Exchange. Additional information provided by the Security Board of Nepal and associated businesses comes from these entities' websites, other relevant publications, and pamphlets.

3.4 Population and Sample

The insurance businesses included in the NEPSE index form the basis of this analysis. The NEPSE currently has 238 listed firms. Twenty of them are insurance providers. Five sample insurance businesses were chosen at random from among those that have been in business since 2073 for this study. Over 25% of the population is represented in the sample.

The following is a list of the names of the sample chosen for the study:

Category	**Population Size**	**Sample Size**	**Name of the Sample Companies**
Insurance Companies	20	5	i. Premier Insurance Company (PIC). ii. Everest Insurance Company (EIC). iii. Himalayan General Insurance Company (HGIC). iv. National Life and General Insurance Company (NLGIC) v. United Insurance Company (UICL)

3.5 Methods of Data Analysis

This study has made use of a number of statistical and financial approaches to meet its research goal. The following describes the relevant statistical and financial methods that have been utilized in the presentation and analysis of the data that has been gathered.

3.5.1 Market Price of Stock (MPS)

The market price of a stock is one of the main factors that determines its value. This is the crucial information needed to compute return on stock. Two approaches were employed in this study: closing price and average price (high and low). In this case, the closing price is considered the stock's market price.

3.5.2 Dividend per Share (DPS)

A dividend is the amount of earnings distributed to shareholders. It is the portion of profits that a company gives to its shareholders. The model for calculating dividends per share is shown below.

DPS = Cash Div. + Stock Div.

Cash equivalent of stock dividend = SDR× Next Year MPS

3.5.3 NEPSE Index

The NEPSE index is the market index for the Nepal Stock Exchange. It is used in the estimation of the expected return on the market. Year-end and return on market computations are considered.

3.5.4 Return on Market (Rm)

It is the percentage increase on the NEPSE index. The relationship below can be used to calculate return on market.

$$R_m = \frac{L_t - L_{t-1}}{L_{t-1}}$$

Where,

R_m = Market Return.

L_t = NEPSE Index at Time Period t.

L_{t-1} = NEPSE Index at Time Period t-1.

3.5.5 Expected Return on Market (Erm)

The expected return on the market is the average return of future expectations. It is an arithmetic mean of the return from the prior year. To calculate the expected return on market, we used the relationship below.

$$\bar{R}m = \frac{\sum R_m}{N}$$

$\bar{R}m$ = Expected Return on Market.

$\sum R_m$ = Summation of Market Return.

N = No. of Observation.

3.5.6 Return on Common Stock (Rj)

Single period rate of return is another term for return on common stock. It is calculated using this formula.

Return on Common Stock

$$= \frac{\text{Ending Price} - \text{Begining Price} + \text{Cash Dividend}}{\text{Begining Price}}$$

Symbolically,

$$= \frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$$

Where,

P_t = Price of Stock at a Time Period t.

P_{t-1} = Price of Stock at a time Period t-1.

D_t = Cash Dividend Received at a time t.

3.5.7 Expected Return on Common Stock ($\bar{R}j$)

The return that investors in a particular stock expect to get in the future is known as the expected return on common stock.

$$\bar{R}j = \frac{\sum Rj}{N}$$

Where,

$\sum$ = Sign of Summation

R_j = Expected Rate of Return on Stock j.

N = Number of Years

3.5.8 Standard Deviation

The risk of a market return is computed using the market return standard deviation. It is equivalent to the variance of the return around the mean squared.

$$\sigma_j = \sqrt{\frac{\sum (R_j - \bar{R}j)^2}{n-1}}$$

σ_j = Standard Deviation of Return on Stock j.

3.5.9 Coefficient of Variation (CV)

We may utilize the coefficient of variation to get the risk per unit of expected return. The following formula may be used to get the coefficient of variation:

$$CV_j = \frac{\sigma_j}{R_j} \times 100\%$$

CV_j = Coefficient of Variation on Stock j.

σ_j = Standard Deviation on Stock j.

R_j = Expected Rate of Return on Stock j.

3.5.10 Correlation Co-efficient

It quantifies the degree to which two variables are related to one another. The amount of liner co-movement that exits between two variables is described. The coefficient's correlation can be either positive or negative, ranging from +1 to -1. It is calculable as:

$$P_{ij} = \frac{Cov_{ij}}{\sigma_i \sigma_j}$$

Where, P_{ij}= Correlation Co-efficient for Securities i and j.

Cov_{ij} = Co-variance between Securities i and j.

$\sigma_i \sigma_j$ = Standard Deviation of Returns for Securities i and j.

Portfolio Return E (rp):

The overall return from investing in a variety of assets is known as the portfolio return. The following formula is used to calculate the specific portfolio:

$E(rp) = x_i \times E(ri) + x_j \times E(rj)$

Where, E(rp) = Portfolio Return

x_i = Proportion of Wealth invested in i^{th} assets.

X_j = Proportion of Wealth invested in j^{th} assets.

E(ri) = Expected Return on i^{th} assets.

E(rj) = Expected Return on j^{th} assets.

3.5.11 Portfolio Risk (σ_p)

It is the sum of the covariance between the securities and the risk of each individual security. The following formula may be used to determine the portfolio risk for two assets:

$$\sigma_p = \sqrt{x_i^2 \sigma_i^2 + x_j^2 \sigma_j^2 + 2x_i x_j Cov_{ij}}$$

Where,

σ_p = Portfolio Standard Deviation

Xi = the proportion of portfolio devoted by security i.

σ_i = The Standard Deviation of security i.

xj = The proportion of portfolio devoted by security j.

σ_j = The Standard Deviation of security j.

Beta Co-efficient (β)

The beta coefficient is one method for comparing the systematic risk of different assets. The beta coefficient of a particular stock will either be greater than, equal to, or less than 1.

In a symbolic sense,

$$B_j = \frac{Cov(R_j R_m)}{\sigma^2 m}$$

Where,

B_j = Beta co-efficient of Stock j.

$CovR_jR_m$ = Covariance between Return on Stock j.

$\sigma^2 m$ = Variance of Market Return.

3.5.12 Analysis of Systematic and Unsystematic Risk

Variance or standard deviation can be used to calculate the overall risk of any given asset. Systematic risk and unsystematic risk can be used to divide the overall risk.

Systematic Risk: Systematic risk is the part of overall risk brought on by market factors that impact the price of all assets at the same time and cannot be mitigated or diversified. In a symbolic sense,

(A) Systematic Risk's Proportion = $\frac{b_j^2 - \sigma_m^2}{\sigma_j^2}$

Where,

b_j^2 = Square of beta of stock j.

σ_m^2 = Variance of market return.

σ_j^2 = Variance of Stock j.

Unsystematic Risk: Unsystematic risk is the part of a stock's overall risk that can be reduced by diversification. It is computed as follows:

(B) Proportion of unsystematic risk = $\frac{\text{Unsystematic Risk}}{\text{Total Risk}} = \frac{\text{Var (re)}}{\text{Var (rj)}}$

Where, Var (re) = Residual Variance

3.5.13 Single Index Model

To create the best possible portfolio out of five insurance company stocks. The following equation has been used to apply Sharpe's single index model. Bhalla (2005), p. 605.

$$\bar{R}i - T = \alpha_i + \beta_{im}(\bar{R}m - T) + \bar{r}i \ldots\ldots\ldots\ldots \text{(i)}$$

Where,

$\bar{R}i$ = Return on Stock

T = Risk free rate of return

α_i = Y intersects of characteristic line

β = Slope coefficient or index of systematic risk

$\bar{R}m$ = Market return of based on the index number

$\bar{r}_i$ = Error term of characteristic line.

Additionally, the following calculation is used to calculate the percentage of investment made in each stock. (Bhalla, 522, 2005)

$$C_i = \frac{\sigma^2 m \sum_{i=1}^{i} \frac{(\bar{R}i - T)\beta_{im}}{\sigma^2 ei}}{1 + \sigma^2 m \sum_{i=1}^{i} \frac{\beta^2 im}{\sigma^2 ei}}$$

Where,

$\sigma^2 m$ = Variance of the market index

$\sigma^2 ei$ = variance of a security's movement of unsystematic risk.

3.5.14 Test of significance

T-test has been applied to evaluate the presumption. The null hypothesis (H0) states that there is no discernible difference between the return on insurance firms' common stock and the total market return.

The alternative hypothesis (H1) states that the return on insurance firms' common stock and the total market return differ significantly.

The t-test statistic has been used to assess this hypothesis. The T-statistic is:

$$t = \frac{\overline{X} - \mu}{\frac{S}{\sqrt{n}}}$$

Where,

t = Student's test (t) statistics.

μ = Arithmetic Mean of Population Parameter.

$\overline{X}$ = Arithmetic Mean of Sample Statistic.

S = Sample Standard Deviation.

n = Sample Size.

Once more, the test statistics (t) is as follows if the test is a test of significance of difference of means:

$$t = \frac{\overline{X} - \mu}{S^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

Where,

$\overline{X}_1$ = Arithmetic Mean of first Sample.

N_1 = Fist Sample Size.

$\overline{X}_2$ = Arithmetic Mean of Second Sample.

N_2 = Second Sample Size.

S_2 = Unbiased Sample Variance of Population n.

Test Results: If the calculated value is less than or equal to the tabulated value, the null hypothesis is accepted, and vice versa.

CHAPTER – IV
RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers the majority of the study. This chapter contains all of the facts and interpretations that were gathered. In this section of the research, the risk and return of a single stock, the return on a portfolio, the relationship between a company's market sensitivity and the percentage of systematic risk in each security are all examined. The gathered data are analyzed and presented using easy-to-understand methods. Tabular presentations of the collected data and results are created, together with a clear explanation. Charts have been utilized in this study to simplify and make the conclusions and data easier to grasp.

4.2 Results

Due to a number of limitations, five insurance firms are used as a sample in this section. Although there are sixteen insurance firms listed in NEPSE overall, I only used five of them as samples in my study. Each of these firms' risk and return analyses is shown and examined below.

The MPS, Cash Division, Stock Division, EPS, Annual Return, Expected Return, Standard Deviation, and C.V. of these companies have all been provided and examined in this research.

4.2.1 Premier Insurance Company (PIC)

Introduction:

In 1992 A.D. (2048 B.S.), Premier Insurance Company was founded under the company statute, and in 1995 A.D. (2052/05/01), it was listed with NEPSE. The office is situated in Kathmandu's Narayanchaur Naxal. This firm has Rs. 200000000 in authorized capital, Rs. 120000000 in issued capital, and Rs. 102000000 in paid-up capital. As per its annual report 2070, each share has a par value of Rs. 100, a paid-up value of Rs. 100, and 10,000,000 shareholders.

Table: 4.1

MPS Dividend and EPS of PIC

Year	High MPS	Low MPS	Closing MPS	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	210	192	210	0	0	0	25.13
2013/14	300	190	190	11	0	11	13.36
2014/15	240	155	220	9	0	9	16.25
2015/16	265	154	225	0	0	0	15.67
2016/17	240	144	235	0	0	0	17.25
2017/18	270	178	250	13	0	13	12.36
2018/19	230	154	170	10	0	10	28.73
2019/20	200	160	192	10	0	10	19.90
2020/21	195	115	170	14	0	14	21.26
2021/22	280	230	270	18	0	18	26.76

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report (2011).

Table No. 4.1 above displays the market price, dividend, and EPS of PIC's common stock. The above graphic displays the trend of the closing price and EPS. The aforementioned data demonstrates that the closing MPS of PIC decreased from 2012/13 to 2013/14, then began to decrease from Rs. 210 in 2012/13 to Rs. 190 in 2013/14, then slightly increased to 2017/18, decreased again to 2020/21, and increased in the final year of the observed year. Comparably, the EPS is trending upward, with the exception of 2012–2013. And in 2013–14, it decreased once again. The 2018/19 year had the greatest EPS of Rs. 28.73, while the 2017/18 year had the lowest EPS of Rs. 12.74.

The aforementioned data further indicates that the dividend amount remained constant in 2013–14 at Rs. 11, decreased to Rs. 9 in 2014–15, and then returned to Rs. 9 notwithstanding the observed year. further, the firm did not declare a dividend in 2013–14, 2015–16, or 2017–18.

Table: 4.2

Annual Return, Expected Rate of Return Standard Deviation and Coefficient of Variation of PIC

Year	Closing Price	Total Dividend	$R=\frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$	$(R-\bar{R})$	$(R-\bar{R})^2$
2012/13	210	0	0.0938	0.0576	0.0033
2013/14	190	11	-0.0429	-0.0791	0.0063
2014/15	220	9	0.2053	0.1691	0.0286
2015/16	225	0	0.0227	-0.0135	0.0002
2016/17	235	0	0.0426	0.0543	0.0029
2017/18	250	13	0.1256	0.2535	0.0642
2018/19	170	10	-0.1818	-0.2180	0.0475
2019/20	192	10	0.1882	0.1520	0.0231
2020/21	170	14	0.0523	0.0536	0.0028
2021/22	270	18	0.0058	0.0026	0.0006
			ΣR = 0.5116		0.4381

Expected Rate of Return ($\bar{R}$) = $\frac{\sum R}{N} = \frac{0.5116}{10} = 0.0465$

Standard Deviation (σ) = $\sqrt{\frac{\sum(R-\bar{R})^2}{n-1}} = \sqrt{\frac{0.4381}{11-1}} = 0.2093$

C.V. = $\frac{\sigma}{\bar{R}} = \frac{0.2093}{0.0465} = 4.5010$

The PIC common stock has a positive yearly rate of return in 2012–13, a negative rate in 2013–14, a positive rate of return from 2014–15 to 2017–18, a negative rate of return from 2018–19, and a positive trend from 2019–20 to the previous year, 2021/22. The year 2014–15 saw the highest PIC return of 0.2053; the year 2018–19 saw the lowest return of –0.1818. The function of the stock price movement during the sample period is this variance in stock return. Additionally, the price of stocks is influenced by both internal and external economic factors, such as political unrest, bull and bear markets, etc. The year with the highest return, 20.53%, in 2014–15 signifies a positive outcome for the investors, while the year with the lowest return, -18.18%, shows a negative outcome.

4.2.2 Everest Insurance Company (EIC)

Introduction:

In 1992, Everest Insurance business was founded as an insurance business (2048 B.S.). NEPSE listed the office as of 12/20/51 B.S. (1995 A.D.). The company's primary goal is to do life and non-life insurance business throughout the nation. This firm has Rs. 100,000,000 in authorized capital, Rs. 30,000,000 in issued capital, and Rs. 30,000,000 in paid-up capital. According to its 2014 annual report, EIC has 300,000 shareholders and a paid up value per share of Rs. 100 as well as a par value per share of Rs. 100.

Table: 4.3

MPS, Dividend and EPS of EIC

Year	High MPS	Low MPS	Closing MPS	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	651	350	350	0	0	0	57.22
2013/14	296	296	296	10	0	10	36.16
2014/15	475	414	414	20	0	20	40.56
2015/16	315	310	310	0	0	0	29.86
2016/17	620	400	610	20	0	20	65.20
2017/18	620	420	610	10	0	10	61.74
2018/19	265	154	225	0	0	0	15.67
2019/20	240	144	235	0	0	0	17.25
2020/21	270	178	250	13	0	13	12.36
2021/22	680	240	240	12	0	12	11.26

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report (2011).

The market price, dividend, and EPS for EIC's common stock are displayed in the table above. The above graphic displays the MPS and EPS trend. The closing MPS of the EIC is clearly erratic, as the above table demonstrates, given that the stock's market price is influenced by a wide range of outside variables, including political unrest, stock market trends, and stick prices, among others. The MPS of EIC has been rising over the past several years. It fell in 2013–14, climbed steadily in F/Y 2014–15 (i.e., Rs. 414), and grew once more in 2016–17 (i.e., Rs. 610). EPS also showed an upward tendency until 2010, after which it showed a downward trend for the whole year under observation. The highest profits per share

(EPS) was recorded in 2016–17 at Rs. 65.20, while the lowest EPS was recorded in 2021/22 at Rs. 11.26.

It is noteworthy that, on the one hand, EPS is found to be expanding while MPS is shown to be fluctuating or declining. It implies that MPS is less affected by EPS. greater EPS is often thought to result in greater MPS.

The table above also demonstrates that the corporation declared a dividend of Rs. 0 in 2012–13, held it at that level for two years within the monitored period, and then reduced it in 2015–16. In 2016–17, the corporation did not issue a dividend. In the two years 2014–15 and 2016–17, the greatest dividend is at 20, while the lowest is at Rs. 0.

Table: 4.4

Annual Return, Expected Rate of Return Standard Deviation and Coefficient of Variation of EIC

Year	Closing Price	Total Dividend	**R=** $\frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$	**(R-** $\bar{R}$ **)**	**(R-** $\bar{R}$ **)²**
2012/13	350	-	-0.4262	-0.4466	0.1995
2013/14	296	10	-0.1257	-0.1461	0.0213
2014/15	414	20	0.4662	0.4458	0.1987
2015/16	310	0	-0.2512	-0.2716	0.0738
2016/17	610	20	0.4318	0.4114	0.1692
2017/18	610	10	0.0164	-0.0040	0.0001
2018/19	225	0	0.0227	-0.0135	0.0002
2019/20	235	0	0.0426	0.0543	0.0029
2020/21	250	13	0.1256	0.2535	0.0642
2021/22	240	10	-0.1818	-0.2180	0.0475
			ΣR 0.1205		0.7774

Expected Rate of Return ($\bar{R}$ **)** = $\frac{\sum R}{N} = \frac{0.1205}{11} = 0.0109$

Standard Deviation (σ) = $\sqrt{\frac{\sum (R - \bar{R})^2}{n-1}} = \sqrt{\frac{0.7774}{11-1}} = 0.2788$

$$\text{C.V.} = \frac{\sigma}{\bar{R}} = \frac{0.2788}{0.0109} = 25.57$$

The data provided above shows that there are both positive and negative annual expected returns on EIC's common stock. Its highest point, 0.4662 (46.62%), is reached in 2014/15; its lowest position, a negative return of -0.4262 (42.62%), is reached in 2012/13. The findings suggests that EIC stock is more sensitive to price changes, as seen by its larger standard deviation and CV. The yearly returns for the years 2012–13, 2013–14, 2015–16, and 2021/22 are extremely low, if not negative, indicating a poor outcome for the investors. In contrast, the returns in the years 2014–15 and 2016–17 are very high. It is the fallout from volatile stock market events and how they affect the price of EIC's shares.

4.2.3 Himalayan General Insurance Company (HGIC)

Introduction:

In accordance with the company laws, HGIC was founded in 1988 A.D. (2044 B.S.) and went public on NEPSE on 10/13/50 (1994 A.D.). The company was founded in November 1993 A.D. with the goal of pursuing non-life and reinsurance business from the Insurance Board in accordance with the Insurance Act of 1992.

This firm has Rs. 160000000 as authorized capital, Rs. 120000000 as issued capital, and Rs. 100800000 as paid up capital. Each share has a paid-up value of Rs. 100 and a par value of Rs. 100. In addition, its annual report for 2071 states that it has 100800 stockholders.

Table: 4.5

MPS, Dividend and EPS of HGIC

Year	High MPS	Low MPS	Closing MPS	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	288	116	175	15	0	15	30.30
2013/14	345	345	345	10	0	10	25.36
2014/15	280	226	234	13	0	13	31.71
2015/16	234	222	222	0	0	0	11.09
2016/17	280	225	225	10	0	10	38.40
2017/18	205	175	190	10	0	10	39.87
2018/19	210	192	210	0	0	0	25.13
2019/20	300	190	190	11	0	11	13.36
2020/21	240	155	220	9	0	9	16.25
2021/22	265	154	225	0	0	0	15.67

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report (2011).

Table No. 4.5 above shows the market price, dividend, and EPS of HGIC's common stock. The MPS and EPS trend is seen in the above chart. Based on the above given information, the MPS of HGIC grew till 2012–2013 and 2013–2014. During the monitored year, it then shows a declining tendency from 2014–15 to 2017–18. The years with the greatest MPS (345) and lowest MPS (116) are 2013/14 and 2012/13, respectively.

EPS is trending downward as well through 2013–2014. It went up in 2014–15 and down again throughout the course of the year under observation. The 2017–18 EPS is the highest at 39.87, while the 2015–16 EPS is the lowest at Rs. 11.09.

Again, in the case of HGIC, EPS is observed to be expanding to some extent, whilst MPS is shown to be declining. It can be the effects of the political upheaval of the time and how the stock price was impacted.

The table above also includes the dividend. In 2012–13, its value was Rs. 15, it stayed there for a year, and then it dropped again in 2015–16.

Table: 4.6

Annual Return, Expected Rate of Return, Standard Deviation, Coefficient of Variation of HGIC

Year	Closing Price	Total Dividend	$R=\frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$	$(R-\bar{R})$	$(R-\bar{R})^2$
2012/13	175	0	-0.0789	-0.1487	0.0221
2013/14	345	10	1.0286	0.9588	0.9193
2014/15	234	13	-0.2841	-0.3539	0.1252
2015/16	222	0	-0.0513	-0.1211	0.0147
2016/17	225	10	-0.1754	-0.2452	0.0601
2017/18	190	10	-0.1111	-0.1809	0.0327
2018/19	210	0	0.2369	0.1365	0.0186
2019/20	190	11	0.0549	0.0276	0.0007
2020/21	220	9	-0.2265	-0.4485	0.2011
2021/22	225	0	0.4695	0.1534	0.0235
			ΣR = 0.8626		1.418

Expected Rate of Return ($\bar{R}$) = $\frac{\sum R}{N} = \frac{0.8626}{11} = 0.0784$

Standard Deviation (σ) = $\sqrt{\frac{\sum(R-\bar{R})^2}{n-1}} = \sqrt{\frac{1.418}{11-1}} = 0.3765$

C.V. = $\frac{\sigma}{\bar{R}} = \frac{0.3765}{0.0784} = 4.8022$

The HGIC yearly return is displayed in the above figure. The HGIC's yearly return is negative in 2012–13, positive in 2013–14, negative once more from 2014–15 to 2017–18 throughout the course of the observed year, and positive once more in the previous year. The year 2013–14 saw the largest return of 1.0286 (102.86%), while the years 2014–15 and 2017–18 saw negative returns. Investors will not be attracted to such a negative return and will find it undesirable. Investors select equities with better returns because they desire higher returns. Therefore, HGIC might not be a stock that appeals to investors. However, due to unfavorable macroeconomic conditions and political unrest, the majority of equities had price declines during this time, and the stock market was in a decreasing trend overall.

4.2.4 United Insurance Company (UICL)

Introduction

In order to provide non-life insurance in the areas of fire, machinery, vehicles, and miscellaneous insurance, United Insurance was founded in 1992 A.D. (2049 B.S.). In 1994 A.D., the firm was listed on NEPSE, or 51/01/17B.S. This firm has Rs. 150000000 as authorized capital, Rs. 120000000 as issued capital, and Rs. 72000000 as paid up capital. According to its 2014 annual report, UICL has 720000 shareholders, a paid-up value per share of Rs. 50, and a par value of Rs. 100 per share.

Table: 4.7

MPS, Dividend and EPS of UICL

Year	High MPS	Low MPS	Closing MPS Q3. `	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	132	105	105	0	0	0	12.38
2013/14	326	314	314	6	0	6	28.42
2014/15	273	184	268	0	0	0	25.22
2015/16	295	260	295	8	0	8	30.05
2016/17	240	160	190	15	0	15	15.69
2017/18	185	120	138	10	0	10	5.97
2018/19	280	226	234	13	0	13	31.71
2019/20	234	222	222	0	0	0	11.09
2020/21	280	225	225	10	0	10	38.40
2021/22	205	175	190	10	0	10	39.87

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report (2011).

The market price, dividend, and EPS of UICL's common stock are displayed in table 4.7 above. The MPS and EPS trends are displayed in the figure. The UICL MPS is trending upward until 2013–14, after which it is trending downward for the duration of the year under observation, according to the data above. The MPS ranges from Rs. 105 in the year 2012/13 to Rs. 314 in the year 2013/14. The EPS of UICL has a nearly constant fluctuating nature

during the course of the investigation. The FY 2021/22 has the greatest EPS of Rs. 39.87, while the FY 2017/18 has the lowest EPS of Rs. 5.97. According to financial theories, the situation is as follows: a rise in EPS results in a higher stock price, and vice versa.

Likewise, dividends consistently display a value of Rs. 10, with the exception of FY 2021/22 and Rs. 8 in 2015/16 and Rs. 15 in 2010. The FY 2016–17 had the highest dividend of Rs. 15, while the FY 2013–14 saw the lowest dividend of Rs. 6.

Table: 4.8

Annual Return, Expected Return, Standard Deviation and Coefficient of Variation of UICL

(The Closing MPS of 2011 = Rs. 228)

Year	**Closing Price**	**Total Dividend**	**R=** $\frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$	**(R-** $\bar{R}$ **)**	**(R-** $\bar{R}$ **)²**
2012/13	105	-	-0.2391	-0.4781	0.2286
2013/14	314	6	2.0476	1.8086	3.2710
2014/15	268	0	-0.1465	-0.3855	0.1486
2015/16	295	8	0.1306	-0.1084	0.0118
2016/17	190	15	-0.1009	-0.3399	0.1155
2017/18	138	10	-0.2211	-0.4601	0.2117
2018/19	296	10	-0.1257	-0.1461	0.0213
2019/20	414	20	0.4662	0.4458	0.1987
2020/21	310	0	-0.2512	-0.2716	0.0738
2021/22	610	20	0.4318	0.4114	0.1692
			ΣR = 1.9971		4.4502

Expected Rate of Return ($\bar{R}$ **)** = $\frac{\sum R}{N} = \frac{1.9971}{11} = 0.1815$

Standard Deviation (σ) = $\sqrt{\frac{\sum(R-\bar{R})^2}{n-1}} = \sqrt{\frac{4.4502}{11-1}} = 0.6670$

C.V. = $\frac{\sigma}{\bar{R}} = \frac{0.6670}{0.1815} = 3.6749$

The aforementioned graphic displays the UICL's yearly rate of return, which was negative in the first year, positive in 2013–14, on the decline once more, and positive in the most recent year. The years 2013–14 and 2020–21 saw the greatest and lowest returns, respectively, of 204.76% and -23.91%. Once more, HGIC is the return pattern for UICL. The return on the UICL stock appears to be highly impacted by negative stock market events. The investors' investment was lost.

4.2.5 National Life and General Insurance Company (NLGIC)

Introduction:

In accordance with the 1964 Company Act, National Life and General Insurance Company Limited was founded in 1985 A.D. Offering insurance services in the life and non-life sectors is the company's primary goal. The firm has 20000000 as its authorized capital, 120000000 as its issued capital, and 19985840 as its paid-up capital. There are 3381 shareholders, the share has a par value of Rs. 100, and its paid-up value is also Rs. 100.

Table: 4.9

MPS, Dividend and EPS of NLGIC

Year	High MPS	Low MPS	Closing MPS	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	437	270	270	0	0	0	45.13
2013/14	704	654	612	0	0	0	29.42
2014/15	609	486	486	8	0	8	20.29
2015/16	477	255	334	0	0	0	36.01
2016/17	600	375	460	10	0	10	60.53
2017/18	480	400	460	10	0	10	59.03
2018/19	240	160	190	15	0	15	15.69
2019/20	185	120	138	10	0	10	5.97
2020/21	280	226	234	13	0	13	31.71
2021/22	234	222	222	0	0	0	11.09

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report (2011)

You may see the NLGIC MPS, dividend, and EPS in table 4.9 above. The MPS data trend indicates that the NLGIC MPS increased until 2013–14, remained stable until 2014–15, and then declined once more in 2015–16. The MPS ranges from Rs. 185 in FY 2019–20 to Rs. 704 in FY 2013–14. The NLGIC's EPS exhibits variability. In the 2019–20 year, it is

reduced. NLGIC's best earnings per share (EPS) was Rs. 60.53 in 2016–17, while its lowest EPS was Rs. 5.97 in 2020–21.

Table: 4.10

Annual Return, Expected Return, Standard Deviation and Coefficient of Variation of NLGIC

(The Closing MPS of 2011 = Rs. 600)

Year	Closing Price	Total Dividend	$R=\frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$	$(R-\bar{R})$	$(R-\bar{R})^2$
2012/13	270	-	-0.4130	-0.4532	0.2054
2013/14	612	0	1.2667	1.2265	1.5043
2014/15	486	8	-0.1928	-0.2330	0.0543
2015/16	334	0	-0.3128	-0.3530	0.1246
2016/17	460	10	-0.2167	-0.2569	0.0660
2017/18	460	10	0.0217	-0.0185	0.0003
2018/19	314	6	2.0476	1.8086	3.2710
2019/20	268	0	-0.1465	-0.3855	0.1486
2020/21	295	8	0.1306	-0.1084	0.0118
2021/22	190	15	-0.1009	-0.3399	0.1155
			$\Sigma R = 2.0839$		5.5018

Expected Rate of Return ($\bar{R}$) = $\frac{\sum R}{N} = \frac{2.0839}{11} = 0.1894$

Standard Deviation (σ) = $\sqrt{\frac{\sum(R-\bar{R})^2}{n-1}} = \sqrt{\frac{5.5018}{11-1}} = 0.7417$

C.V. = $\frac{\sigma}{\bar{R}} = \frac{0.7417}{0.1894} = 3.9160$

4.3 Comparative Analysis

The results of an examination of the expected return, standard deviation, and coefficient of variation are shown in Table No. 4.11.

Table: 4.11

Expected Return Standard Deviation and Coefficient of Variation of Five Samples Insurance Company

S.N.	Companies	Expected Return	S. D.	C.V	Remarks		
					Return	Risk	C.V.
1	PIC	4.65%	20.93%	4.501%		Lowest	Lowest
2	EIC	1.09%	27.88%	25.57%	Lowest		
3	HGIC	7.84%	37.65%	4.802%			
4	UICL	18.15%	66.70%	3.674%	Highest	Highest	
5	NLGIC	18.94%	74.17%	3.9160%			Highest

This table indicates that EIC's S.D. and projected return are greater than those of other insurance firms in the sample. Among the others, NLGIC offers the lowest risk and return. However, C.V. is helpful when there are several investments with varying risk and returns. The danger is measured per unit by C.V. PIC's C.V. for common stock is lower than those of other insurance providers. The lower the risk, the lower the minimal C.V. By investing in PIC, an investor must assume 3.674 units of risk in order to receive one unit of return. As a result, PIC has the lowest C.V., or 3.674, making it the ideal option for investors.

4.4 Market Capitalization of Sample Insurance Companies

Table: 4.12

Market Capitalization of Sample Insurance Companies at FY 2078/79

Name of Company	MKT Capitalization in Million	Percentage
PIC	63.00	17.28%
EIC	105.00	28.81%
HGIC	52.50	14.40%
UICL	63.00	17.28%
NLGIC	81.00	22.22%
Total	364.50	100%

4.5 Analysis of Market Risk and Return

As far as we are aware, the Nepal Stock Exchange is the only stock market in Nepal (NEPSE). The whole market action is represented by the NEPSE index. In estimating the market return, the specific year's market risk is taken into account. Return on investment, anticipated return,

Table: 4.13

Market Return its Standard Deviation and Coefficient of Variation

Year	NEPSE Index NI	$R_m=\frac{(L_t - L_{t-1})}{L_{t-1}}$	$R_m-\bar{R}_m$	$(R_m-\bar{R}_m)^2$	Remarks
2012/13	227.5	-0.3470	-0.5422	0.2940	
2013/14	204.9	-0.0997	-0.2949	0.0870	
2014/15	222.0	0.0839	-0.1113	0.0124	
2015/16	656.4	1.9563	1.7611	3.1015	
2016/17	548.5	-0.1644	-0.3596	0.1293	
2017/18	407.1	-0.2577	-0.4529	0.2051	
2018/19	270.2	-0.4130	-0.4532	0.2054	
2019/20	612.8	1.2667	1.2265	1.5043	
2020/21	486.5	-0.1928	-0.2330	0.0543	
2021/22	334.9	-0.3128	-0.3530	0.1246	
		ΣR_m=1.1714		3.8293	

Source: SCBO, Annual Report 2015.

Expected Return ($\bar{R}_m$) = $\frac{\sum R_m}{N} = \frac{1.1714}{6}$ = 0.1952 or 19.52%

S.D. (σ_m) = $\sqrt{\frac{\sum(R_m - \bar{R}_m)^2}{n-1}} = \sqrt{\frac{3.8293}{6-1}}$ = 0.8751

C.V. = $\frac{\sigma}{\bar{R}} = \frac{0.8751}{0.1952}$ = 4.4831

Diagram 4.13 displays the Nepal Stock Exchange index for a range of years. The above picture illustrates how the NEPSE index climbed until 2013–14, then decreased until 2015–16, and then increased once again in 2017–18. The year with the greatest index is 2015–16; the year with the lowest index is 2013–14.

The above figure illustrates that the market's yearly return is both positive and negative for every three years. The year with the highest annual market return was 2015–16; the year with the lowest return was 2018–19.

4.6 Portfolio Diversification Analysis

Harry M. Markowitz developed portfolio theory, which provides the idea of risk diversification by allocating all of the capital among many stocks or assets. More predicted utility is obtained by the investor thanks to this hypothesis than through any other risk-reduction strategy. We may conceptualize it as simply as putting all of your eggs into one basket. The risk of any one investment can be decreased without significantly lowering return by spreading the entire capital over several securities. The primary goal of a portfolio is to lower unsystematic risk, from which investors may profit more from an effective portfolio.

A portfolio is an assortment of assets. As per the investing theories, there is a positive correlation between increased risk and better return, which is why this research is based on a portfolio of two assets. According to the portfolio theory, diversifying your investments can help you keep the best possible return while reducing risk. Since EIC has the highest risk and highest return, it has been chosen as a non-replacing security in the two-asset portfolio built in this section. We must compute the co-variance between two securities in order to determine the risk and return of the portfolio.

Table 4.14shows that the calculation of covariance of return of common stock of EIC and PIC.

Table: 4.14

Calculation of Cov. (R_{EIC}. R_{PIC})

FY	$(R_{EIC}-\overline{R}_{EIC})$	$(R_{PIC}-\overline{R}_{PIC})$	$(R_{EIC}-\overline{R}_{EIC})(R_{PIC}-\overline{R}_{PIC})$
2012/13	0.4114	-0.2180	-0.0897
2013/14	-0.0040	0.1520	-0.0006
2014/15	-0.4466	0.0576	-0.0257
2015/16	-0.1461	-0.0791	0.0116
2016/17	0.4458	0.1691	0.0754
2017/18	-0.2716	-0.0135	0.0037
2018/19	0.0839	-0.1113	0.0124
2019/20	1.9563	1.7611	3.1015
2020/21	-0.1644	-0.3596	0.1293
2021/22	-0.2577	-0.4529	0.2051
Total			-0.0253

[Data source table no. 4.2 & 4.4]

We have,

$$\text{Cov.}(R_{EIC}, R_{PIC}) = \frac{\sum\left[\left(R_{EIC}-\overline{R}_{EIC}\right)\left(R_{PIC}-\overline{R}_{PIC}\right)\right]}{N-1}$$

$$= \frac{-0.0253}{6-1} = -0.0051$$

We can now determine the ideal weight of stock EIC & PIC that minimizes risk with the aid of Cov.EIC, PIC.

$$W_{EIC} = \frac{\sigma^2 PIC - Cov.\left(R_{EIC}, R_{PIC}\right)}{\sigma_{EIC}^{\ 2} + \sigma_{PIC}^{\ 2} - 2Cov.\left(R_{EIC}, R_{PIC}\right)}$$

Where, W_{EIC} = Optimal weight to invest on EIC stock.

$$= \frac{0.0218. - (-0051)}{0.1325 + 0.0218 - 2 \times (-0.0051)}$$

$$= \frac{0.0269}{0.1543 + 0.0102}$$

$W_{EIC} = 0.1635$

$W_{PIC} = 1 - W_{EIC}$

Where, W_{PIC} = Optimal weight to invest in stock of PIC.

$= 1 - 0.1635$

$\therefore W_{PIC} = 0.8365$

Given that, while maintaining a portfolio of both EIC and PIC, the ideal weight of each stock is 0.1635 for EIC and 0.8365 for PIC. Since WPIC exceeds 1, WEIC is negative.

Table: 4.15

Calculation of covariance and correlation, portfolio return, portfolio risk between the stocks of EIC & HGIC

FY	$(R_{EIC} - \overline{R}_{EIC})$	$(R_{HGIC} - \overline{R}_{HGIC})$	$(R_{EIC} - \overline{R}_{EIC})(R_{HGIC} - \overline{R}_{HGIC})$
2012/13	0.4114	-0.2452	-0.1009
2013/14	-0.0040	-0.1809	0.0007
2014/15	-0.4466	-0.1487	0.0664
2015/16	-0.1461	0.9588	-0.1401
2016/17	0.4458	-0.3539	-0.1578
2017/18	-0.2716	-0.1211	0.0329
2018/19	-0.4130	-0.4532	0.2054
2019/20	1.2667	1.2265	1.5043
2020/21	-0.1928	-0.2330	0.0543
2021/22	-0.3128	-0.3530	0.1246
Total			-0.2988

Table: 4.16

Calculations of Covariance, Correlation, Portfolio Return, Portfolio Risk between the Stock of EIC and UICL

FY	$(R_{EIC}-\overline{R}_{EIC})$	$(R_{UICL}-\overline{R}_{UICL})$	$(R_{EIC}-\overline{R}_{EIC})(R_{UICL}-\overline{R}_{UICL})$
2012/13	0.4114	-0.3399	-0.1398
2013/14	-0.0040	-0.4601	0.0018
2014/15	-0.4466	-0.4781	0.2135
2015/16	-0.1461	1.8086	-0.2642
2016/17	0.4458	-0.3855	-0.1719
2017/18	-0.2716	-0.1084	0.0294
2018/19	-0.2841	-0.3539	0.1252
2019/20	-0.0513	-0.1211	0.0147
2020/21	-0.1754	-0.2452	0.0601
2021/22	-0.1111	-0.1809	0.0327
Total			-0.3312

Table: 4.17

Calculations of Covariance, Correlation, Portfolio Return, Portfolio Risk between the Stock of EIC and NLGIC

FY	$(R_{EIC}-\overline{R}_{EIC})$	$(R_{NLGIC}-\overline{R}_{NLGIC})$	$(R_{EIC}-\overline{R}_{EIC})(R_{NLGIC}-\overline{R}_{NLGICIC})$
2012/13	0.4114	-0.2569	-0.1057
2013/14	-0.0040	-0.0185	0.0001
2014/15	-0.4466	-0.4532	0.2024
2015/16	-0.1461	1.2265	-0.1792
2016/17	0.4458	-0.2330	-0.1039
2017/18	-0.2716	-0.3530	0.0959
2018/19	2.0476	1.8086	3.2710
2019/20	-0.1465	-0.3855	0.1486
2020/21	0.1306	-0.1084	0.0118
2021/22	-0.1009	-0.3399	0.1155
Total			-0.0904

4.6.1 Composition of Risk and Return on the basis of isolation and portfolio of EIC and PIC

Table: 4.18

Portfolio Risk and Return of EIC and PIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				0.0655	0.1319	2.014	0.0051	-0.095
PIC	0.0476	0.1476	3.1008					

The risk and return of EIC and PIC are displayed in the above table. According to this computation, the individual risks of PIC and EIC are 0.1476 and 0.3640, respectively, in terms of total risk. Additionally, the combined risk, or S.D., of the two firms' portfolios is just 0.1319, whereas EIC and PIC's portfolio returns total 0.0655. A portfolio's return must exceed the total return of all of its individual stocks in order for it to be chosen.

4.6.2 Comparison of Risk and Return on the Basis of Isolation and Portfolio of EIC and HGIC

Table: 4.19

Portfolio Risk and Return of EIC and HGIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				0.0293	0.2377	8.113	0.0598	0.339
HGIC	0.0546	0.4846	8.8755					

It is evident from the computation above that the portfolio return is 0.293. The portfolio risk is also 0.2377. Investors that hold both EIC and HGIC investments can receive higher returns than HGIC alone, and the risk of both firms is higher when considered separately than when considered as a portfolio. A portfolio's return must exceed the total return of each of the individual EIC and HGIC stocks in order for it to be chosen. Therefore, investing in this portfolio of HGIC and EIC is not recommended.

4.6.3 Comparison of Risk and Return on the basis of isolation and portfolio of EIC and UICL

Table: 4.20

Portfolio Risk and Return of EIC and UICL

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				-0.030	0.4157	13.86	0.0662	0.2038
UICL	0.2451	.8926	3.6418					

The portfolio risk is 0.4157 and the portfolio return for EIC and UICL is -0.030, according to the preceding data. A portfolio's return needs to be higher than the total return in order for it to be chosen. The EIC and UICL portfolios in this instance are unacceptable as portfolio returns are lower than those of isolation. Thus, it is not advantageous for investing.

4.6.4 Comparison of Risk and Return on the basis of Isolation and Portfolio of EIC and NLGIC

Table: 4.21

Portfolio Risk and Return of EIC and NLGIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				0.0203	0.3033	14.94	-0.0181	0.0795
NLGIC	0.0255	0.6253	24.5216					

The risk and return for both NLGIC and EIC are displayed in the above table. Holding interests from both EIC and NLGC can provide higher returns than investing in NLGIC alone, but there is also a higher risk associated with investing in both firms. A portfolio's return needs to exceed the return of the entire portfolio in order for it to be chosen. Therefore, investing in this portfolio of EIC and NLGIC is not recommended.

Table: 4.22

Comparative Analysis of Portfolio Risk and Return

Portfolios	Portfolio Return	Portfolio Risk	C.V.	Covariance	Remarks
EIC & PIC	0.0655	0.1319	2.014	0.0051	Lowest S.D.
EIC & HGIC	0.0293	0.2377	8.113	0.0598	Highest Return
EIC &UICL	-0.030	0.4157	13.86	0.0662	
EIC & NLGIC	0.0203	0.3033	14.94	-0.0181	

The portfolio return, portfolio risk, and covariance between the EIC, PIC, and HGIC portfolios of a chosen insurance firm are displayed in the above table. The EIC portfolio has the greatest return, 0.0655, while the PIC portfolio has the lowest S.D. and lowest C.V. The best portfolio of HGIC and EIC investments will yield the maximum return for the investor. An investor can minimize risk by maintaining an ideal portfolio consisting of both EIC and PIC.

Table: 4.23

Correlation

	EIC	PIC	HGIC	UICL	NLGIC
EIC	1	-0.095	0.339	0.2038	0.0795

The correlation between sample stocks of insurance companies is displayed in table 4.37 above. Building a positive-correlated portfolio does not yield gains for the investor.

The EIC and HGIC have a very strong correlation, or 0.339. In this case, there is a positive link between the EIC and PIC, HGIC, UICL, and NLGIC. As a result, portfolios are unable to lower risk at all due to the fact that PIC and other equities have correlation coefficients greater than -0.095. (Highly correlated positive degree).

4.7 Analysis of Market Sensitivity

The systematic risk associated with a stock, as determined by its beta coefficient, is its market sensitivity. The beta coefficient is a measure of systemic risk that diversification is unable to lower. The beta coefficient indicates the stock's level of sensitivity to the market more beta indicates more return and risk. It gauges a security's reaction to changes in the market

portfolio.

Beta may be less than, greater than, or equal to one depending on how volatile a stock's return is in relation to its market return for that particular stock.

The covariance between the market return and the stock must first be determined in order to get the beta of the stock. After that, we may use to get the beta coefficient.

$$Bj = \frac{Cov(r_j r_m)}{\sigma^2 m}$$

Beta Coefficient of Stock of PIC

Calculated Beta coefficient of selected sample insurance companies is shows in below

Table: 4.24

Beta coefficient of Sample Insurance Company

S.N.	Name of Company	Beta Coefficient
1	PIC	-0.1658
2	EIC	-0.1220
3	HGIC	0.5415
4	UICL	0.9783
5	NLGIC	0.6788

According to the computation above, Premier Insurance Company's (PIC) beta coefficient is -0.1658—that is, less than 1. It suggests that PIC's stock return is more erratic than the market return. The corporation is therefore very sensitive to the fact that a 1% drop in the market return would result in a -0.1658% risk to the return on the stocks. With a beta of -0.1220, the EIC stock return is more erratic than the market return. This implies that a 1% shift in the market return will result in a -0.1220% change in the return on EIC stock. Furthermore, UICL and HGIC have betas of 0.9783 and 0.5415, respectively. This implies that the stock returns of both companies exhibit greater volatility than the market return. For every 1% variation in the market return, the stock returns of HGIC and PIC will differ by 0.5415% and 0.9783%, respectively. However, NLGIC's beta is smaller than 1, at 0.6788. It suggests that the NLGIC stock return is less erratic than the market return. The return on NLGIC stock changed by just

0.6788% for every 1% change in the market return. Except for NLGIC, the beta coefficient from the computation above is larger than 1. As a result, although NLGIC's stock is defensive, that of PIC, EIC, HGIC, and UICL is aggressive.

The above graphic illustrates the positive beta of every insurance company that has been observed. This indicates that the stock returns of these firms follow the direction of the market returns. The market is more volatile than the beta of NLGIC alone. Among the firms under observation, HGIC has the greatest beta coefficient, while NLGIC has the lowest. According to the aforementioned finding, all sample companies' returns will increase if the market return does, and vice versa.

4.8 Price Evaluation of Common Stock of Sample Insurance Companies

One of the most crucial CAPM components is beta. The needed rate of return for a stock is equal to both its risk premium and the risk-free rate, based on the CAPM assumption where the beta coefficient is used to quantify risk. The following two presumptions can be applied to the appraisal of common stock price.

- A stock is underpriced if its required rate of return (RRR) is lower than its expected rate of return (ERR).
- The stock is overvalued if the necessary rate of return (RRR) exceeds the average expected rate of return (ERR).

Table: 4.25

RRR, ERR and Price Valuation

S.N.	Insurance Company	R_F%	Beta (β)	$\overline{R}_m$(%)	ERR (%)	RRR (%)	Price Valuation
1	PIC	3.64	-0.1658	9.90	4.76	2.60	Under Price
2	EIC	3.64	-0.1220	9.90	1.86	2.88	Under Price
3	HGIC	3.64	0.5415	9.90	5.46	7.03	Under Price
4	UICL	3.64	0.9783	9.90	24.51	9.76	Under Price
5	NLGIC	3.64	0.6788	9.90	2.55	7.89	Over Price

Required Rate of Return (RRR) = $R_F+(R_m - R_F)\beta$

Where, R_F = Risk Free Rate of Return, = 3.64%

$\overline{R}_m$ = Market Rate of Return, 9.9%

Source: (NRB Treasury bill)

The pricing position of the common stock of many example insurance firms, including where they are overpriced or underpriced, is described in the above table.

The capital assets pricing model is the foundation for this computation (CAPM). Stocks are either overpriced or underpriced based on the comparison of the needed rate of return (RRR) and the average expected rate of return (ERR). In the event where RRR is smaller than ARRR, the CAPM model says. It is believed that the stock is inexpensive, and in this case, investors should adhere to the purchasing strategy for this kind of stock. Stocks are considered overvalued and investors should sell them if the RRR exceeds the ERR.

With the exception of NLGIC shares, all of the sample firms' common stock is undervalued, according to the computation above.

Thus, it suggests that although investors profit from selling NLGIC due to overprice, they can profit from purchasing the shares of PIC, EIC, HGIC, and UICL.

4.9 Segregation of Risk

Owning stocks carries two different kinds of risk: systematic risk and unsystematic risk. The overall risk attached to a certain asset may be determined using the standard deviation or rate of return variance.

Unavoidable and originating from the system as a whole is systemic risk. Conversely, unsystematic risk may be diversified and is brought on by internal factors. That's why it's called avoidable risk.

Because diversifiable risk may be diversified at no cost, investors should be aware of the proportion of systematic and unsystematic risk. By dividing risk, investors can determine the degree to which a given stock's risk can be mitigated by maintaining an ideal portfolio.

The computation of both systematic and unsystematic risk, together with the percentage of each company's shares at risk, as required.

4.9.1 Segregation of Risk of PIC Stock

There are two categories of total risk: systematic and unsystematic, as determined by variance (2).

Variance of PIC stock's return = Total risk of PIC

$\sigma^2_{PIC} = b^2_{PIC}\sigma^2_m + Var(e)$

$(0.1476)^2 = (-0.1658)^2 \times (0.8751)^2 + Var(e)$

or, $0.0218 = 0.0275 \times 0.7658 + Var(e)$

or, $0.0218 = 0.0211 + Var(e)$

or, $0.0218 - 0.0211 = Var(e)$

$\therefore Var(e) = 0.0007$

$\therefore$ Total Risk = 0.0218

(a) Systematic Risk = 0.0211

$\therefore$ Portion of Systematic Risk on Total Risk = $\frac{\text{Systematic Risk}}{\text{Total Risk}}$

$= \frac{0.0211}{0.0218}, = 0.9679$

= 96.79%

(b) Unsystematic Risk = Var(e) = 0.0007

$\therefore$ Portion of Unsystematic Risk on Total Risk = $\frac{\text{Unsystematic Risk}}{\text{Total Risk}}$

$= \frac{0.0007}{0.0218}, = 0.0321, = 3.21\%$

As a result, 96.79% of the risk associated with PIC stock is systematic, while 3.21% is unsystematic.

Note: The coefficient of determination, or r2 of return on investment and market return, can also be used to quantify systematic risk.

4.9.2 Segregation of Risk of EIC Stock

Variance of EIC Stock = Total Risk of EIC

$\sigma^2_{EIC} = b^2_{EIC}\sigma^2_m + Var(e)$

$(0.3640)^2 = (-0.1220)^2 \times (0.8751)^2 + Var(e)$

or, 0.1325 = 0.0149 $\times$ 0.7658 +Var(e)

or, 0.1325 = 0.0114 + Var(e)

or, 0.1325 – 0.0114 = Var(e)

$\therefore$ Var(e) = 0.1211

$\therefore$ Total Risk = 0.1325

(a) Systematic Risk = 0.0114

$\therefore$ Portion of Systematic Risk on Total Risk = $\frac{\text{Systematic Risk}}{\text{Total Risk}}$

= $\frac{0.0114}{0.1325}$, = 0.0860

= 8.60%

(b) Unsystematic Risk = Var(e) = 0.1211

$\therefore$ Portion of Unsystematic Risk on Total Risk = $\frac{\text{Unsystematic Risk}}{\text{Total Risk}}$

= $\frac{0.1211}{0.1325}$, = 0.9140, = 91.40%

Hence, the total risk of EIC stock consists of 8.60% systematic risk and 91.40% unsystematic risk system.

4.9.3 Segregation of Risk of HGIC Stock

Variance of HGIC Stock = Total Risk of HGIC

$\sigma^2_{HGIC} = b^2_{HGIC}\sigma^2_m$ + Var(e)

$(0.4846)^2 = (0.5415)^2 \times (0.8751)^2$ + Var(e)

or, 0.2348 = 0.2932 $\times$ 0.7658 +Var(e)

or, 0.2348 = 0.2248 + Var(e)

or, 0.2348 – 0.2245 = Var(e)

$\therefore$ Var(e) = 0.0103

$\therefore$ Total Risk = 0.2348

(a) Systematic Risk = 0.2245

$\therefore$ Portion of Systematic Risk on Total Risk = $\frac{\text{Systematic Risk}}{\text{Total Risk}}$

= $\frac{0.2245}{0.2348}$, = 0.9561

= 95.61%

(b) Unsystematic Risk = Var(e) = 0.0103

$\therefore$ Portion of Unsystematic Risk on Total Risk = $\frac{\text{Unsystematic Risk}}{\text{Total Risk}}$

= $\frac{0.0103}{0.2348}$, = 0.0439, = 4.39%

Hence, the total risk of HGIC stock consists of 95.61% systematic risk and 4.39 % unsystematic risk system.

4.9.4 Segregation of Risk of UICL Stock

Variance of UICL Stock = Total Risk of UICL

$\sigma^2_{UICL} = b^2_{UICL}\sigma^2_m + Var(e)$

$(0.8926)^2 = (0.9783)^2 \times (0.0.8751)^2 + Var(e)$

or, 0.7967 = 0.7329 + Var(e)

$\therefore$ Var(e) = 0.0638

$\therefore$ Total Risk = 0.7967

(a) Systematic Risk = 0.7329

$\therefore$ Portion of Systematic Risk on Total Risk = $\frac{\text{Systematic Risk}}{\text{Total Risk}}$

= $\frac{0.7329}{0.7967}$, = 0.7673

= 76.73%

(b) Unsystematic Risk = Var(e) = 0.0638

$\therefore$ Portion of Unsystematic Risk on Total Risk = $\frac{\text{Unsystematic Risk}}{\text{Total Risk}}$

= $\frac{0.0638}{0.7967}$, = 0.0801, = 8.01%

Hence, the total risk of UICL stock consists of 91.99% systematic risk and 8.01% unsystematic risk system.

4.9.5 Segregation of Risk of NLGIC Stock

Variance of NLGIC Stock = Total Risk of NLGIC

$\sigma^2_{NLGIC} = b^2_{NLGIC}\sigma^2_m + Var(e)$

$(0.3910)^2 = (0.4608)^2 \times (0.7658)^2 + Var(e)$

or, 0.3910 = 0.3529 + Var(e)

$\therefore$ Var(e) = 0.0381

$\therefore$ Total Risk = 0.3910

(a) Systematic Risk = 0.3529

$\therefore$ Portion of Systematic Risk on Total Risk = $\frac{\text{Systematic Risk}}{\text{Total Risk}}$

= $\frac{0.3529}{0.3910}$, = 0.9026 = 90.26%

(b) Unsystematic Risk = Var(e) = 0.0381

$\therefore$ Portion of Unsystematic Risk on Total Risk = $\frac{\text{Unsystematic Risk}}{\text{Total Risk}}$

= $\frac{0.0381}{0.3910}$, = 0.0974, = 9.74%

Therefore, there are 9.74% unsystematic risk and 90.26% systematic risk in the overall risk of NLGIC stock.

Table: 4.26

Summary of Segregation of Total Risk of Sample Stocks

S.N.	Insurance Company	Total Risk $(\sigma)^2$	Systematic Risk	Proportion	Unsystematic Risk	Proportion
1	PIC	0.0218	0.0211	0.9679	0.0007	0.0321
2	EIC	0.1325	0.0114	0.0860	0.1211	0.9140
3	HGIC	0.2348	0.2245	0.9561	0.0103	0.0439
4	UICL	0.7967	0.7329	0.9199	0.0638	0.0801
5	NLGIC	0.3910	0.3529	0.9026	0.0381	0.0974

The above table displays the proportion of unsystematic and systematic risk. Table 4.26 summarizes the breakdown of total risk into systematic and unsystematic risk. It shows that, out of all sample stocks, the HGIC stock has the largest percentage of systematic (non-diversifiable) risk, at 96.79%, while the EIC stock has the lowest percentage, at 8.6%. This data suggests that EIC stocks are better when building a portfolio to reduce risk since investors may reduce the amount of risk.

4.10 Constructing the Optimal Portfolio (Single Index Model)

Using Sharpe's single index approach, the ideal portfolio made up of sample insurance firms' stocks may be created. As recommended by Bhalla (2001) and Elton et al. (1978), an ideal portfolio has been created here. Any security's excess return above ratio directly affects how desirable it is (Bhalla, 2005, 611). A portfolio's selection of securities is contingent upon the particular cut-off rate.

Table: 4.27

Data Needed to Find Optimal Portfolio

T = 1.64%

Security	**Mean return ($\overline{R_i}$)**	**Excess return ($\overline{R}_i - T$)**	**Beta (β_{im})**	**Unsystematic risk (σ^2_{ei})**	**Excess return over beta ($\overline{R}_i - T$)/β_{im}**
EIC	1.86	0.22	-0.1220	12.11	-1.8033
PIC	4.76	3.12	-0.1658	0.07	-18.8179
HGIC	5.46	3.82	0.5415	1.03	7.0545
UICL	24.51	22.87	0.9783	6.38	23.3773
NLGIC	2.55	0.91	0.6788	3.81	1.3406

(Data source table no. 4.11, 4.29 & 4.31)

The mean return, excess return, beta, unsystematic or unique risk, and the ratio of excess return over beta are shown in Table 4.32 above. Based on excess return over beta ratio, the five securities are rated from top to lowest.

All securities that have an excess return to risk ratio higher than the cut-off rate are approved, while those that have a ratio lower are not. Assuming for the time being that C* = 13.124, a review of the 4.36 reveals that, for securities 1 through 3, (is more than C*, and for securities 4 and 5, it has (is lower than C. Therefore, securities 1 through 3 make up the ideal portfolio.

Ci provides the array of i security.

$$Ci = \frac{\sigma^2 m \sum_{i=1}^{i} \frac{(\bar{R}i - T)\beta_{im}}{\sigma^2 ei}}{1 + \sigma^2 m \sum_{i=1}^{i} \frac{\beta^2 im}{\sigma^2 ei}}$$

Where, $\sigma^2{}_m$ =12.532

Additionally, Zi is provided by to calculate the percentage of each stock's investment in the portfolio:

$$Z_i = \frac{\beta_{im}}{\sigma^2 ei}\left[\frac{(\bar{R}i - T)}{\beta_{im}} - C^*\right]$$

Where, C* = 13.124

Table: 4.28 Calculation for Determining Cut-off rate with σ^2_m = 12.532

S. N.	Security	$(\bar{R} - T)/\beta_{im}$	$\frac{(\bar{R} - T)/\beta_{im}}{\sigma^2_{ei}}$	$\frac{\beta^2_{im}}{\sigma^2_{ei}}$	$\frac{(\bar{R} - T)\beta_{im}}{\sigma^2_{ei}}$	$\sum_{i=1}^{i} \frac{(\bar{R} - T)\beta_{im}}{\sigma^2_{ei}}$	$\sum_{i=1}^{i} \frac{\beta^2_{im}}{\sigma^2_{ei}}$	C_i	Z	Z Proportion
1	EIC	-1.8033	-0.1489	-0.0101	-0.0022	-0.002	-0.0101	7.491	0.259	24.51%
2	PIC	-18.8179	-268.8271	-2.3686	-7.3899	-7.392	-2.3787	12.489	0.440	90.26%
3	HGIC	7.0545	6.8490	0.5257	2.0083	-5.384	-1.853	13.124	0.139	16.55%
4	UICL	23.3773	3.6642	0.1533	3.5069	-1.877	-1.6997	11.610	-	-
5	NLGIC	1.3406	0.3519	0.1782	0.1621	-1.715	-1.5215	10.861	-	-

The preceding data makes it clear that the C3 acts as a cutoff rate because the ci value starts to decrease after that point. Consequently, the best portfolio is made up of EIC, PIC, and HGIC stocks. The Z percentage, which is determined by dividing the total Zi of the three stocks by their Zi, indicates that the proportions of these securities are 24.51%, 90.26%, and 16.55%, respectively, based on Sharpe's technique for developing an ideal portfolio.

It can be seen from table 4.33 that the C3 cut-off rate, which is 13.124, is utilized. The aforementioned table 4.33 illustrates how to calculate the percentage of investment in the portfolio by dividing each security's Zi by the sum of its Zi. Therefore, the best combination on the comprised of the following stocks: EIC, PIC, and HGIC, with corresponding weights of 24.51%, 90.26%, and 16.55%.

4.11 Testing of Hypothesis

The test of significance for the difference between sample and population means is the basis of this hypothesis.

The null hypothesis (H0) states that there is no discernible difference between the return on insurance firms' common stock and the total market return.

The alternative hypothesis (H1) states that the return on insurance firms' common stock and the total market return differ significantly.

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$

Where,

$\overline{X}_1$ = Average return of portfolio of insurance sector i.e. $\overline{R}_{I\&F}$ = 0.0607.

$\overline{X}_2$ = Average return of portfolio of market sector i.e. $\overline{R}_m$ = 0.1952.

$n_1 = n_2$ = number of observation = 6

S^2 = Estimated Std. Deviation of population

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2}$$

$$= \frac{6 \times (0.2717)^2 + 6 \times (0.354)^2}{6 + 6 - 2}$$

$$= \frac{0.443 + 0.752}{10}$$

= 0.1195

Where,

S_1 = Standard deviation of Insurance Sector (from 0.2717)

S_2 = Standard deviation of market return (from 0.0354)

S_1 = 0.2717

S_2 = 0.354

Now using the formula,

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$

$$= \frac{0.0607 - 0.099}{\sqrt{0.1195\left(\frac{1}{6} + \frac{1}{6}\right)}}, = -\frac{0.0383}{0.0398}, = -0.962$$

$\therefore |t| = 0.962$

Degree of freedom, n1+n2–2 = 6+6-2 = 10

From the student's-distribution, the tabulated value of 't' for 10 degree of freedom (d.f.) at 10%, 5%, 2% and 1% level of significance are 1.812, 2.228, 2.764 and 3.169 respectively. Decision: - since the calculated value of t is less than the tabulated value at all level of

significance therefore the null hypothesis is accepted i.e. average return of common stock of insurance companies and average return on overall market are equal.

4.12 Major Findings of the Study

The majority of the data used in this study came from appropriate secondary sources. Financial and statistical tools are used in the analysis. Standard deviation, coefficient of variation, portfolio return, portfolio risk, and correlation coefficient have been used in statistical tools to analyze the financial activities of chosen companies. In financial tools, percentage, market price of stock, dividend, expected return on common stock, and return of common stock investment analysis have been used.

The following summarizes the study's main conclusions:

I. UICL has the largest market capitalization and EIC has the lowest, according to a sample analysis of the stocks of five insurance firms. For every stock in the dataset, the average holding term return was positive. EIC has the greatest observed average return of 24.51%, while NLGIC has the lowest recorded average return of 1.86%. Nevertheless, in the most recent years (2013, 2014, and 2015), the majority of the sample enterprises had negative returns. Due to a falling economic trend and political upheavals throughout those years, the stock market declined, revealing the negative return.

II. For PIC, EIC, HHGIC, UICL, and NLGIC, respectively, the standard deviation of return on stock is 14.76%, 36.40%, 48.46%, 89.26%, and 62.53%. Out of five insurance firms, EIC has the lowest S.D. and the highest S.D. Greater standard deviation denotes increased volatility in stock return, whereas smaller standard deviation denotes decreased volatility.

III. In a similar vein, the NLGIC's CV (risk) is 24.5216, while the PIC's CV is the lowest at 3.10206. A lower CV is thought to be less dangerous, and vice versa, as CV measures the ratio of risk to reward. Consequently, NLGIC's stock is riskier while PIC's stock is less dangerous.

IV. Based on the NEPSE Index, the sample period market return is 19.52% with an 87.51% standard deviation. The market's coefficient of variation is 4.4831, which is extremely high since the NEPSE index is unstable.

V. When the two asset portfolio was built for the sample insurance businesses, the combination of EIC and PIC produced the maximum portfolio return of 6.55%. It

suggests that building a portfolio of those equities can be advantageous to investors. Likewise, the portfolio with the lowest return is -3% of EIC and UIC.

VI. PIC, EIC, HGIC, UICL, and NLGIC have, in that order, beta coefficients of -0.1658, -0.1220, 0.5415, 0.9783, and 0.6877. Since PIC's beta coefficient is less than 1, it is the case for all other corporations. If the beta coefficient is more than 1, the stocks are considered aggressive as a minor change in the market return will result in a significant change in the stock's return.

VII. Every stock in the CAPM study is judged to be undervalued, with the exception of NGLIC. Because the projected rate of return on the equities is higher than the needed rate of return, the stocks are undervalued.

VIII. PIC, EIC, HGIC, and NLGIC had systematic risk proportions of 96.79%, 8.60%, 95.61%, 91.99%, and 90.26%, in that order. Among the five insurance firms, the stocks of PIC, HGIC, and UICL have the most systematic risk. The larger percentage of systematic risk suggests that these risks—which are referred to as non-diversifiable risks—cannot be reduced by portfolio construction.

IX. Using the Sharpe single index model and the Elton et al. (1978) concept to create the ideal portfolio, it is discovered that the sample insurance firms' ideal portfolio is made up of 24.51% investments in security EIC, 90.26% in security PIC, and 16.55% in security HGIC.

X. The null hypothesis is accepted in the t-test since the computed value is smaller than the tabulated value. This indicates that, at all levels of importance, the expected return on the insurance company's common stock is equal to the market return.

CHAPTER –V
SUMMARY AND CONCLUSION

5.1 Summary

Among other securities, the common stock investment is the main subject of this research. Common stock investors have the ultimate responsibility for the company's success and are thus linked to both risk and reward. Therefore, in order to effectively manage the share price, the finance manager has to be able to identify the two primary factors that influence risk and return. These factors are receiving a lot of attention in financial management and are simpler to identify when the nation has a developed and robust stock market.

A nation's total economic development greatly depends on the involvement of its citizens in the dynamic trading and investing of securities. The availability of investment options is hampered by the current investment climate. The trade-off between risk and return is the main subject of this research, and the way in which investors participate in risk and demand compensation helps to explain the link between risk and return. Before taking on any risk, an investor will only want to invest in assets that they are confident will yield a sufficient return. Therefore, risk is essential to the appraisal of investments. Investors frequently want to know how much risk they will be taking on overall and whether the risk premium offered is sufficient. A linear connection between risk and risk premium is assumed in the trade-off between the two, with more risk commanding a higher premium.

When investing in stocks, the average investor looks for two types of returns: capital gains and dividends. In order to get a better return with less risk, rational investors carefully consider the behavior of stock return and the final risk connected with it before allocating their funds to an efficient portfolio. However, it is discovered that the majority of investors in Nepal place their money in a single security when they may profit from investing in a portfolio through risk diversification.

The primary goal of the study was to assess the risk and return of investing in common stock of Nepali insurance firms. The study's primary goals are to evaluate the risk and return of common stocks in the Nepalese market, with a particular emphasis on common equities held by insurance firms. To examine the risk and return, five listed firms are considered. A brief

overview of relevant research has been carried out during the risk and return analysis process. Data has been analyzed using research technique, and the results are presented simply and quickly with the use of tables, graphs, and diagrams. It is only supported by secondary data. The NRB, SEBO/N, Nepal Stock Exchange, and the financial records of the enterprises under study are the sources of the secondary data.

5.2 Conclusion

This study examined historical data spanning 10 years, from 2069/70 to 2078/79, using a sample of five insurance companies: PIC, EIC, HGIC, UICL, and NLGIC. EIC is the highest and HGIC is the lowest on the basis of market capitalization size of five samples, according to the individual analysis of risk and return patterns of the sample businesses.

All insurance firms have positive expected returns in terms of return patterns. The biggest expected return, 24.51%, is for EIC's common stock, while the lowest, 1.86%, is for EIC.EIC is the finest insurance company out of the five because of its greatest return.

The percentages of PIC, EIC, HHGIC, UICL, and NLGIC that have common stock that carries risk are 17.76%, 36.40%, 48.46%, 89.26%, and 62.53%, respectively. Out of five insurance firms, EIC has the highest S.D. while NLGIC has the lowest. Coefficient of variation (CV), commonly referred to as a relative measure of risk, is a tool used to quantify risk because Standard deviation is not the only one available. The minimal CV of the PIC is 3.1007, whereas the highest CV (risk) of the NLGIC is 24.5216.

NEPSE as a single stock market: the index increased until 2069, then decreased until 2071–072, rising once more in 2071–72. The total market return is 19.52%, the risk on the market's common stock (i.e., S.D.) is 87.51%, and the market's coefficient of variation is 4.4831.

When the two asset portfolio was built for the sample insurance businesses, the combination of EIC and EIC produced the maximum portfolio return of 6.55%. Likewise, the portfolio with the lowest return is -3% of EIC and UIC. According to the portfolio analysis, creating a portfolio can lower risk to a minimum. Of the stocks of the example firm, HGIC has the lowest unsystematic risk and EIC stock the highest.

The beta coefficient describes the sensitivity or volatility of the stock to changes in the market and assesses systematic risk. The beta coefficients for the different PIC, EIC, HGIC, UICL, and NLGIC sample firms are, in that order, -0.1658, -0.1220, 0.5415, 0.9783, and 0.6788. Since every company's beta coefficient—aside from NLGIC—is bigger than 1. Except for NLGIC, it suggests that the share is riskier or more volatile than the market.

The sample of stocks from insurance companies, with the exception of NLGIC, is undervalued, according to the CAPM study.
The systematic risk proportions of PIC, EIC, HGIC, and NLGIC, when risk is partitioned, are 96.79%, 8.60%, 95.61%, 91.99%, and 90.26%, in that order. Among the five insurance firms, the stocks of PIC, HGIC, and UICL have the most systematic risk. NLGIC's stock has matched each of these concerns. This data suggests that EIC stocks are better when building a portfolio to reduce risk since investors can lower portfolio risk.

The process of creating an optimal portfolio using the Sharpe single index model and the Elton et al. (1978) concept reveals that the sample insurance companies' optimal portfolio is comprised of 24.51% investments in security EIC, 90.26% in security PIC, and 16.55% in security HGIC.

The null hypothesis is accepted since the computed value from the t-test is smaller than the tabulated value. This indicates that, at all levels of importance, the expected return on the insurance company's common stock is equal to the market return.

5.3 Implications

The primary goal of this study is to evaluate risk and return for investors, institutions, and the general public. The recommendations that follow are derived from the data analysis, conclusions, and findings.

- An adventurous investor may choose EIC stock because it has the highest average return and risk.
- Due to NLGIC's lowest average return and risk, investors who are risk averse (i.e., do not want to take on risk) may consider investing in this product.

- Out of all the sample stocks, EIC and NLGIC have greater unsystematic risk than UICL, PIC, and HGIC; thus, they ought to make an effort to reduce the risk by appropriate management.
- The sample equities' correlation coefficients are high—more than 0.683—meaning that building a portfolio of strongly positively linked stocks will lower some risk, when a result, even when their portfolio grows, investors might not be able to considerably lower risk.
- The defensive beta (i.e., 0.7030) of NLGIC's stock is the lowest among the sample, suggesting that it would be better to build a portfolio of several firms. This stock can be added by investors to reduce portfolio risk.
- Based on the results of the CAPM research, investors stand to gain from purchasing PIC, EIC, HGIC, and UICL stocks at discounted prices and selling NLGIC shares at an increased price.
- An investor can benefit from the Sharpe's Index Model by building an ideal portfolio of EIC, PIC, and HGIC stocks in the appropriate ratios (weight). Thus, the ideal portfolio would include 24.51% invested in EIC security, 90.26% in PIC security, and 16.55% in HGIC security. That may, however, alter if the time horizon does.

For further Research Avenue some additional recommendations are as follows:

- To get more dependable and legitimate results, one might extend the sample size and duration.
- This kind of investigation need to be carried out periodically. Periodic reviews are necessary to ensure the results are stable over the long run.
- A thorough investigation on risk return viewpoints using more potent statistical and financial instruments is anticipated.

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Appendix

MPS Dividend and EPS of PIC

Year	High MPS	Low MPS	Closing MPS	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	210	192	210	0	0	0	25.13
2013/14	300	190	190	11	0	11	13.36
2014/15	240	155	220	9	0	9	16.25
2015/16	265	154	225	0	0	0	15.67
2016/17	240	144	235	0	0	0	17.25
2017/18	270	178	250	13	0	13	12.36
2018/19	230	154	170	10	0	10	28.73
2019/20	200	160	192	10	0	10	19.90
2020/21	195	115	170	14	0	14	21.26
2021/22	280	230	270	18	0	18	26.76

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report.

Annual Return, Expected Rate of Return Standard Deviation and Coefficient of Variation of PIC

(The Closing MPS of 2068 = Rs. 220)

Year	Closing Price	Total Dividend	$R=\frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$	$(R-\bar{R})$	$(R-\bar{R})^2$
20123/13	210	0	0.0938	0.0576	0.0033
2013/14	190	11	-0.0429	-0.0791	0.0063
2014/15	220	9	0.2053	0.1691	0.0286
2015/16	225	0	0.0227	-0.0135	0.0002
2016/17	235	0	0.0426	0.0543	0.0029
2017/18	250	13	0.1256	0.2535	0.0642
2018/19	170	10	-0.1818	-0.2180	0.0475
2019/20	192	10	0.1882	0.1520	0.0231
2020/21	170	14	0.0523	0.0536	0.0028
2021/22	270	18	0.0058	0.0026	0.0006
			ΣR = 0.5116		0.4381

Expected Rate of Return ($\bar{R}$) = $\frac{\sum R}{N} = \frac{0.5116}{10} = 0.0465$

Standard Deviation (σ) = $\sqrt{\frac{\sum(R-\bar{R})^2}{n-1}} = \sqrt{\frac{0.4381}{11-1}} = 0.2093$

C.V. = $\frac{\sigma}{\bar{R}} = \frac{0.2093}{0.0465} = 4.5010$

MPS, Dividend and EPS of EIC

Year	High MPS	Low MPS	Closing MPS	Cash Dividend	Stock Dividend	Total Dividend	EPS
2012/13	651	350	350	0	0	0	57.22
2013/14	296	296	296	10	0	10	36.16
2014/15	475	414	414	20	0	20	40.56
2015/16	315	310	310	0	0	0	29.86
2016/17	620	400	610	20	0	20	65.20
2017/18	620	420	610	10	0	10	61.74
2018/19	265	154	225	0	0	0	15.67
2019/20	240	144	235	0	0	0	17.25
2020/21	270	178	250	13	0	13	12.36
2021/22	680	240	240	12	0	12	11.26

Source: Trading Report, Financial Statistics of Security Board and Company's Annual Report.

Expected Return Standard Deviation and Coefficient of Variation of Five Samples Insurance Company

S.N.	Companies	Expected Return	S. D.	C.V	Remarks		
					Return	Risk	C.V.
1	PIC	4.65%	20.93%	4.501%		Lowest	Lowest
2	EIC	1.09%	27.88%	25.57%	Lowest		
3	HGIC	7.84%	37.65%	4.802%			
4	UIC	18.15%	66.70%	3.674%	Highest	Highest	
5	NLGIC	18.94%	74.17%	3.9160%			Highest

Portfolio Risk and Return of EIC and PIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				0.0655	0.1319	2.014	0.0051	-0.095
PIC	0.0476	0.1476	3.1008					

Portfolio Risk and Return of EIC and HGIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				0.0293	0.2377	8.113	0.0598	0.339
HGIC	0.0546	0.4846	8.8755					

Portfolio Risk and Return of EIC and UIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				-0.030	0.4157	13.86	0.0662	0.2038
UIC	0.2451	.8926	3.6418					

Portfolio Risk and Return of EIC and NLGIC

Company	In Isolation			In Portfolio				
	Return	S.D.	C.V.	Return	S.D.	C.V.	Cov.	Corr.
EIC	0.0186	0.3640	19.5699					
				0.0203	0.3033	14.94	-0.0181	0.0795
NLGIC	0.0255	0.6253	24.5216					

Comparative Analysis of Portfolio Risk and Return

Portfolios	Portfolio Return	Portfolio Risk	C.V.	Covariance	Remarks
EIC & PIC	0.0655	0.1319	2.014	0.0051	Lowest S.D.
EIC & HGIC	0.0293	0.2377	8.113	0.0598	Highest Return
EIC & UIC	-0.030	0.4157	13.86	0.0662	
EIC & NLGIC	0.0203	0.3033	14.94	-0.0181	

Correlation

	EIC	PIC	HGIC	UIC	NLGIC
EIC	1	-0.095	0.339	0.2038	0.0795

A COMPARATIVE STUDY ON RISK AND RETURN ANALYSIS...

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CHAPTER -I INTRODUCTION 1.1 Background of the Study The total growth **of** a nation **is** intimately linked to **its economic** prosperity. **The** two main drivers **of the country**

's economic growth are industrialization and capital formation. Making prudent financial decisions and investing in the producing sector is how industrialization is achieved. Funds that are distributed around the country might be gathered through financial institutions. One can invest in stocks or the capital markets. One financial arena that makes buying and selling stocks simple for everyone interested in doing business is the stock market. The country's overall growth is said to be aided by the rise of the financial sector, which is represented by the country's stock market. Thus,

it is essential to have a healthy **and active stock market** , which **also**

aids in the regulation of different industries and benefits the general people by bringing all the services and information they need under one roof, making life easier for them. Securities markets are mechanisms designed to ease the exchange of financial assets because they bring together buyers and sellers of securities. The stock market is the financial market, the most glamorous and maybe the least understood. Many investors perceive stock market trading as a game where the primary goal is to identify winners, while some observers see it as a legalized gambling paradise. The only structured exchange in Nepal that facilitates systematic securities trading is called NEPSE. For their securities to be traded on the secondary market, all firms need to be listed on NEPSE. NEPSE's primary goal is to give corporate and government securities unfettered marketability and liquidity by enabling trade on its trading floor via market intermediaries like brokers and market makers, among others. Investment To invest is to put money into something with the intention of achieving a certain profit. Stated differently, investing entails forgoing now money in favor of future ones. An investment always carries some risk and requires time. Investment also contributes to a rise in the country's output. A financial or other resource commitment made now with the expectation of future returns is called an investment. "An investment is