IMPACT OF INTEREST RATES ON MARKET PRICE OF STOCK IN NEPSE

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

by

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"Impact of Interest Rates on Market Price of Stock in NEPSE"**. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes.

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

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REPORT OF RESEARCH COMMITTEE

Ms. Sharmila Rai has defended research proposal entitled **"Impact of Interest Rates on Market Price of Stock in NEPSE"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Asso. Prof. Dr. Khapil Khanal and submit the thesis for evaluation and viva voce examination.

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APPROVAL SHEET

We have examined the dissertation entitled **"Impact of Interest Rates on Market Price of Stock in NEPSE"** presented by **Sharmila Rai** a candidate for the degree of Master of Business Studies (MBS). We hereby certify that the dissertation is acceptable for the award of degree.

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ABBREVIATIONS

CAPM	: Capital Assets Pricing Model
DDM	: Dividend Discount Model
EMH	: Efficient Market Hypothesis
CV	: Coefficient of Variance
GDP	: Gross Domestic Product Growth
INF	: Inflation Rate
IR	: Interest Rate
MBS	: Master in Business Studies
NEPSE	: Nepal Stock Exchange
NRB	: Nepal Rastra Bank
SP	: Stock Price
SD	: Standard Deviation
SPSS	: Statistical Package for Social Science
TU	: Tribhuvan University
UR	: Unemployment Rate

ABSTRACT

This research explores the influence of important macroeconomic indicators on the Nepal Stock Exchange (NEPSE) index. These variables include the interest rate, inflation rate, unemployment rate, and inflation rate. The study makes use of a quantitative methodology, along with descriptive research methodologies, to conduct an analysis of secondary data covering the years 2003–04 to 2022–23. The data was obtained from the Nepal Rastra Bank (NRB), Nepal stock exchange (NEPSE), and economic publications. Statistical investigations, which include correlation and multiple regression, have shown that there is a positive correlation between the predictors and the NEPSE Index that is relatively high (R = 0.679). Furthermore, these factors explain 46.2% of the variation in the data. While inflation, unemployment, and GDP growth rates do not display statistically significant correlations with the NEPSE index, the interest rate does indicate a substantial positive influence on the index. The results highlight the significant influence that variations in interest rates have on Nepal's stock market performance. These findings provide investors, policymakers, and market analysts with vital information. Future studies could further understand the dynamics of the NEPSE index by investigating other factors to provide a more thorough understanding.

Keywords: *NEPSE index, interest rate, macroeconomic variables, stock market performance*

CHAPTER I
INTRODUCTION

1.1 Background of the Study

Nepal is a developing country which is striving to develop and modernize her economy. But the structure of the economy has still remained primarily agricultural with very small manufacturing base. With the change in surrounding, it is essential to divert and modify agro-based economy into capital-based economy. But it has been difficult to divert into liberalization policies as the formation and utilization of capital are shaped by various factors such as Interest rates, inflation, GDP of country, unemployment rate etc. These factors all affect the economy of a country, which leads to changes in stock price.

Interest is a payment for the use of money so when savers deposit their savings in banks that time bank pays a certain amount of interest on saving amount because of use this money to lend other customers. So, the equal amount will receive and paid by each other as per the agreement. Interest rate is a charge claimed by lender/creditor and paid by borrower/debtor. It is also applied to the amount earned at a bank or credit union from a deposit account. In other word, interest rate is a medium of collecting return amount from lender and borrower. It is cost of holding the specific amount for a specific time, (Peter, 2008).

Interest rate refers to the money paid regularly at a particular rate for the use of money lent, or for delaying the repayment of debt. Generally, interest is expressed as a percentage of principal paid annually. People must pay interest in borrowed money. Bank and financial institutions borrow money from central bank and pay interest on it and they also charge interest to the lenders for investment. A borrower that is considered low risk by the lender will have a lower interest rate whereas a loan that is considered high risk will have a higher interest rate. The interest rate is the amount charged on top of the principal by a lender to a borrower for the use of credit.

Interest rate is one of the important variables in economics and financial system of the country. Interest rates are economic tool used by the government to control inflation and boost economic development. Control of the inflation or deflation in the economy is a major role entrusted to the government. Regulating the interest charged on credit or any financial instrument is essential to managing economic trends that significantly

impact society as a whole. Central Bank controls and sets interest rates in order to stabilize the economic growth of a country. Poor decisions regarding interest rates can have a direct and profound impact on the overall economic performance, particularly within the financial sector and commercial banks. In the context of Nepal, interest rates are a monetary tool that the NRB uses for regulating the monetary policy. If the NRB signals to banks and other financial institutions (BFIs) that it is increasing its lending ratio, the BFIs will follow suit. Likewise, if central bank sets high interest rates, other financial institutions are forced to charge high rates because they are all driven by profit, (Prasai, 2015).

As Interest Policy in Nepal is directly controlled and regulated by the central bank i.e. NRB whereas stock price is regulated by NEPSE. This study evaluated the impact of interest rate by NRB on NEPSE stock. The finance-economic theory argues for the developed stock market in ensuring long-term capital to promote the real economic activity of a country. So, a well-developed stock market is perceived as a yardstick of the economic health and prospect of a country.

The history of Nepal's securities market begins with the flotation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. The first government bond was issued in 1964, following the passage of the Company Act and the founding of Securities Exchange Center Ltd. There were additional noteworthy developments in the field of financial markets in 1976. The Securities Exchange Center was founded with the intention of assisting and encouraging the expansion of capital markets. It was the only capital markets organization handling brokering, underwriting, managing public issuance, market making for government bonds, and other financial services prior to its conversion into a stock exchange. Later, Nepal Government initiated reforms in capital markets and converted Securities Exchange Center into Nepal Stock Exchange in 1993. The NEPSE opened its trading floor at the beginning of 1994. 249 firms are listed for trade on the Nepalese stock exchange as of January 20, 2024. Because of this, the Nepali stock market is still developing, although interest in it has increased dramatically since it was founded, (Pathak & Gupta, 2018).

NEPSE was founded to mobilize capital as an alternative to the country's traditional banking sector in order to support economic growth and development. Change in interest rates affect borrower and investors psychology. When increase in interest

rates will decrease the purchasing power of borrower and investors which significantly cause in fall in stock price. On the other hand, when there is decrease in interest rate, borrower and investors purchasing power will increase which leads to rise in stock price. But actually, nothing has to happen to stock price in order to change in interest rate. Even before NRB announces a hike, both borrower and investors may pre-empt this potentiality and cut back on spending. These causes fall in earning as stock prices decrease and the market is expected to drop. Whilst, if people expect NRB will instead announce decrease in interest rate, it leads to increase in spending and investment which cause rise in stock price.

Shrestha & Subedi (2014) states that normally, one common indicator of the state of the economy is the stock market index. An increase in the stock index is typically interpreted favorably because it shows investors have faith in the economy's prospects. It encourages investment in the financial system. Still, there's always reason for alarm when the stock market index rises quickly. The stability of the financial system and the economy will be put in jeopardy if the index continues to climb in an unjustifiable manner without regard for the fundamentals. Therefore, it is crucial that decision-makers monitor the growth of the stock market and be prepared to act appropriately when necessary to stop bubbles from forming and the market from collapsing. Understanding the relationship between the stock market index and the variables that affect it is essential for this. Several factors may affect the stock market, such as inflation, GDP, unemployment, etc. However, which factors affect to what degree will vary from country to country, depending on the size, type and other characteristics of the economy and the market.

In addition to main variables, this study also shows the impact of interest rate on stock price of NEPSE. It is anticipated that the study's conclusions will offer some important new information on the factors influencing the Nepalese stock market's performance, information that will be helpful to investors and policymakers alike.

1.2 Problems Statement

Interest rate can be the main source of affect, but not determine the stock market (Mueller, 2006). Generally speaking, as Nepal is a developing country, people’s purchasing power is low which leads to low savings. As a result, there is a higher chance of investors borrowing capital. An increase in interest rates will make

borrowing more challenging. Due to the decreased rate of return and resulting earnings, the company will have less money to expand. Eventually, investors will be impacted by the reduction of bonuses and dividends. The stock market will then lose its allure as an investment vehicle. But there are other variables besides interest rates that have an impact on the stock market. Even with a high interest rate, the stock market index may be rising as a result of other reasons like economic expansion, political unrest, and monetary policies. As a result, the relationship between interest rates and stock price is indirectly related. They move in opposite direction i.e., when NRB increases interest rates, it causes decrease in stock price where as if NRB decrease interest rates, it leads to increase in stock price. But there is no uniform result to any given interest rate change about the study.

As financial market plays an important role in an economy, it plays vital role by channelizing investments, providing platform for exchange of financial assets with varying risk-return characteristics and acts as a marketplace for both domestic and foreign investors to engage besides improving liquidity, lowering transaction costs and providing effective risk management tools. Among all others financial markets, a stock market is regarded as very important part. It refers to a regulation and exchanges of buying, selling and issuance of shares of publicly held companies. Stock markets is a medium of channelizing savings from surplus units of the society to deficit units and enables optimum allocation and utilization of scare capital resources as a result it provides the base for long term sustainable economic growth which effects all areas such as economic, social, political, legal and technological information.

Financial activities are conducted through institutionalized formal exchanges or over-the-counter (OTC) marketplaces which operate under the defined set of regulations. There are various stock trading venues in a country or a region which allow stocks transactions, but in case of Nepal, there is only one regulator i.e. Nepal Stock Exchange (NEPSE) where its index shows the performance of the stock market. Therefore, this study is important in order to determine how interest rates affect Nepal's share price. The following are the particular problem statements:

- What is the existing trend of NEPSE index and interest rates, inflation, unemployment and GDP growth in Nepal?

- Is there a correlation between Nepal's interest rates, inflation, unemployment, GDP growth, and NEPSE index?
- How interest rate, inflation rate, unemployment rate and GDP growth effect on NEPSE index in Nepal?

1.3 Objectives of the Study

The general objective of the study is to analyze the effect of change in interest rate on Nepalese stock market. However, the specific objectives of the study are as follows:

- To assess the existing trend of NEPSE index and interest rates, inflation, unemployment and GDP growth in Nepal.
- To examine the correlation between interest rates, inflation, unemployment, GDP growth and NEPSE index.
- To analyze the impact of interest rates, inflation, unemployment and GDP growth effect on NEPSE index in Nepal.

1.4 Hypothesis

A hypothesis is a statement that suggest a possible outcome of a phenomenon or relationship between the variables. It functions as a hypothesis that can be verified by empirical research and analysis which are developed from previous research, observations or finding, while focusing for the further investigation by offering a narrow area of study. The interest rates, inflation, unemployment, and GDP are the independent variables in this study, and the NEPSE Index is the dependent variable. Here, the possible outcomes are verified thoroughly. The hypothesis of the study are as follows:

H_1: There is no significant effect of interest rates on NEPSE index in Nepal.

H_2: There is no significant effect of inflation rates on NEPSE index in Nepal.

H_3: There is no significant effect of unemployment rates on NEPSE index in Nepal.

H_4: There is no significant effect of GDP growth on NEPSE index in Nepal.

1.5 Rationale of the Study

In this 21st century, stock price has been one of the most affecting factors for capitalization so its importance has been increasing as the time goes on. But there are various factors that has been affecting the stock market. The interest rate is among the

most important variables. Since, interest rates and stock prices are two major determinants of a nation's economic growth, essential to understand it's characteristics for policymakers, government and students. This study is an important aspect of economic development. The goal of this study is to determine whether the Nepal Stock Exchange (NEPSE) has efficient markets. This study will be useful to analyze the investment habit of people. This study states that the stock market is affected by others variables factors. As a result, this study is critical for assisting investors, brokers, students, academicians, policymakers, government officers, bankers, managers, and stock analysts in making educated decisions, implementing effective policies, and conducting additional stock price research.

1.6 Limitations of the Study

This study was conducted because the past research was done only between interest rate and share price. There was not involvement of macroeconomic factors. As, each and every research has its own advantages and disadvantages. This study is also not left untouched by the limitations. Some of them are:

- This study is based on secondary data. As data are taken from various secondary source such as financial reports, economic reports, past records and online etc.
- This study has applied the closing price of the NEPSE Index for each fiscal year, with interest rates based on the average base rate of the NRB for the year.
- This study has analyzed only last twenty years i.e from 2003/04 A.D. to 2022/23 A.D.
- There are other independent variables such as inflation rate, unemployment rate and GDP etc which are used for financial analysis.

CHAPTER II
LITERATURE REVIEW

A literature review is a comprehensive analysis or a through summary of previous academic publications that are relevant to a specific subject or research question. It emphasis to find an important themes, trends, and knowledge gaps while synthesizing and critically evaluating a broad range of literature, including academic books, journals, papers and other sources that are related to the particular field of a study. Such important research should be listed, described, summed up, impartially evaluated, and clarified in the review. It helps in finding out the methodology, conclusions and problems with recommendations and highlight the new topics that are require more study for the further investigations. It plays an essential role for formulating research questions, directing methodological decisions, and developing a work plan according to the research paper. Thus, a literature review gives the reader a complete grasp of the advancement in the topic by establishing a "landscape" for them. In this study, a literature review examines how interest rates affect stock price in according to scholars. Here, previous scholars review on the impact of interest rate on stock price has been studied and highlights its methodology with its findings. There are different types of literature view but in this study only two types of literature review have been explained.

2.1. Theoretical Review

The theoretical review is the depth study about the research frameworks, concepts and relevant models to a specific research question. In contrast to other literature review that concentrate on providing summary of empirical studies, theoretical review provides a comprehensive understanding of a theoretical framework such as concepts, assumptions, arguments and evolving viewpoints. The theoretical literature review assists in determining those already exist theories, their relationships, the extent to which existing ideas has to be studied, and testing of new hypothesis. This section underpins the theoretical foundation about the relationship between interest rates with other independent variables & stock prices. It explains how change in interest rate and other different independent variables impact on stock prices while influencing investor behavior leads to change a dynamic market. Some of the theoretical studies are explained as below:

2.1.1. Efficient Market Hypothesis (EMH)

The efficient market hypothesis (EMH) assumes that stock prices effectively reflect all relevant information. According to the EMH, stock prices will swiftly and precisely respond to changes in interest rates when it comes to interest rates. Investors may expect better returns from equities if interest rates increase, which could result in a drop in stock prices. On the other hand, if fixed-income assets become less appealing as interest rates decline, stock values may rise. Eugene Fama introduced the EMH in the 1970s, and it has since grown to be a key idea in financial economics. In Efficient Market Hypothesis (EMH) theory, financial markets are efficient and prices quickly incorporate all available information, making it difficult for investors to regularly outperform the market using publicly available information or past prices. This theory provides an investor about a better grasp of how information is processed in the financial markets and can make more informed decisions about their portfolio management and investment strategies (Fama, 1970).

In weak form efficiency, asset price represents all past information, which result to produce regular excess returns. Semi-strong form efficiency level argues that asset prices take into account all past and public information, including business announcements, news, and other publicly released data. Therefore, it produces returns that are above average. Strong form efficiency This is the strongest version of the hypothesis, in which asset prices represent all available information, including past, public and private information.

There has been ongoing discussion between the EMH's detractors and proponents. Some contend that behavioral biases, market frictions, and other elements prevent markets from being completely efficient. Others argue that, even with transaction costs and hazards included, it is still difficult to consistently outperform the market, even though markets may not always be perfectly efficient.

The efficient market hypothesis (EMH) has received support in various forms. Weak form efficiency, which contends that stock prices accurately reflect all historical information, is one component of the Efficient Market Hypothesis (EMH) that makes it challenging to continuously generate excess returns on historical data. This idea is supported by studies conducted by Fama and French (1992) and Jegadeesh and Titman (1993). These studies show that historical data is not a reliable way for

investors to continuously outperform the market since stock prices quickly integrate all available past information.

Another level of the EMH is semi-strong form efficiency, which asserts that stock prices incorporate all publicly available information including business announcements, news and other publicly released data. Empirical research by Barber and Odean (2008) and Hong and Stein (1999) supports this notion. Their research indicates that new information is quickly reflected in stock prices, indicating that trading on the basis of publicly available information alone is not a reliable way for investors to regularly generate above-average profits.

The strongest version of the EMH is strong form efficiency, which argues that stock prices represent all available information, both public and private. While the debate around strong form efficiency continues, studies by Loughran and Ritter (1995) and Cohen et al. (2012) provide evidence that even private information, such as insider trading, is swiftly incorporated into stock prices, highlighting a high level of efficiency in the market.

However, it is important to note that the EMH assumes rational behavior and frictionless markets. Empirical studies have revealed the presence of behavioral biases and market frictions that can impact market efficiency. For example, research by Shiller (1981) and Kahneman and Tversky (1979) has shown how psychological factors can influence investor decision-making, suggesting that markets may not always be perfectly efficient.

Despite these debates, empirical evidence consistently indicates the challenges for investors who consistently outperform the market, even when considering transaction costs and risks. Grinblatt and Keloharju (2000) and Fama and French (2010) provide support for this notion, demonstrating the difficulty of achieving consistent above-average returns.

Empirical studies have provided valuable insights into the efficient market hypothesis. While there are ongoing debates and challenges to its assumptions, the evidence suggests that stock prices typically reflect all relevant information, despite continuous discussions and challenges to its assumptions. This makes it difficult for investors to consistently outperform the market by using information that is publicly available or historical prices.

2.1.2 Dividend Discount Model (DDM)

The dividend discount model highlights the significance of dividends in calculating the intrinsic value of a stock. Interest rates have an indirect impact on this model because they affect the discount rate applied to future cash flows. A rise in interest rates might cause the discount rate to increase, which might lower the current value of future dividends and affect stock prices. The dividend discount model (DDM) estimates a stock's intrinsic value by taking into account the present value of its expected dividend payments. The DDM is founded on the idea that the value of a stock is fundamentally derived from the cash flows generated for its owners in the form of dividends. The Gordon Growth Model, commonly referred to as the Gordon-Shapiro Model, is one of the most widely used versions of the Dividend Discount Model. Here is the Gordon Growth Model's formula:

$$V_0 = \frac{D_0(1+g)}{r-g}$$

Where,

V_0 = Intrinsic value of the stock

D_0 = Most recent dividend payment

g = Expected constant growth rate of dividends

r = Required rate of return (Cost of Equity)

According to the Gordon Growth Model, dividend growth will continue to be constant indefinitely. This is a generalization that may not apply to all businesses, particularly those that do not currently pay dividends or have erratic dividend growth trends. It has restrictions and assumptions, that not all companies' dividend will increase steady. Furthermore, the approach works well for established businesses with reliable dividend streams. Other valuation techniques, such as discounted cash flow (DCF) analysis or relative valuation techniques (comparables analysis), may be more appropriate if a company does not pay dividends or if the dividend growth is highly unclear.

Fama and Schwert (1977) conducted research that suggests changes in interest rates have a significant impact on stock prices. Their study found that an increase in interest rates leads to a decrease in stock prices, supporting the notion that interest rates indirectly affect stock valuation. Rozeff (1984) and Malloy (2005) found empirical evidence supporting the use of the DDM in estimating stock values. They

concluded that the DDM can be a reliable tool for valuing stocks, especially for firms with stable dividend growth and consistent dividend payout policies.

However, the Gordon growth model, a widely used version of the DDM, has its limitations. Penman (1997) highlighted that the model's assumption of constant dividend growth may not hold for firms with volatile or unpredictable dividend patterns. The study suggests that alternative valuation methods, such as discounted cash flow (DCF) analysis, may be more appropriate in such cases.Comparisons between the DDM and DCF analysis have been explored in empirical research. Gebhardt et al. (2001) and Penman et al. (2007) conducted studies comparing both methods and found that both can provide accurate estimates of intrinsic value. The choice between them depends on the availability and reliability of dividend and cash flow data.

Furthermore, the applicability of the DDM to non-dividend paying firms has been investigated. Lintner (1956) and Miller and Modigliani (1961) acknowledged that the DDM may not be suitable for firms that do not currently pay dividends. They suggested that alternative valuation techniques, such as earnings-based models or cash flow-based models, may be more appropriate for valuing non-dividend paying firms. Empirical studies provide valuable insights into the concepts related to interest rates, the dividend discount model, and alternative valuation techniques. These studies enhance our understanding of how interest rates indirectly influence stock prices, the validity and limitations of the DDM, and the applicability of different valuation approaches for various types of firms.

2.1.3 Capital Asset Pricing Model (CAPM)

The capital asset pricing model measures the connection between expected returns, systematic risk, and risk-free rates. The risk-free rate, which is frequently connected to the yields on government bonds, is important in this paradigm. A rise in risk-free rates as interest rates rise may have an influence on the expected returns investors demand for holding equities, which would have an impact on stock prices. It is a popular financial model which calculate the expected return of a portfolio or asset based on the risk of the asset in relation to the market as a whole. It offers a framework for comprehending how risk and return interact when it comes to investment. The central idea of CAPM is that investors need to be compensated for

taking on risk in the form of returns. The model takes into account both systematic and unsystematic risk.

Systematic risk, often referred to as market risk or non-diversifiable risk, is linked to factors that affect the market as a whole, such as current economic conditions, changes in interest rates, and geopolitical developments. Diversification cannot completely remove systemic risk.

Unsystematic risk, sometimes referred to as specific risk or diversifiable risk, is a type of risk that is peculiar to a given business or sector and can be mitigated by diversification. Examples include problems unique to the organization, such management choices, labor disputes, or supply chain disruptions. The CAPM formula is as follows:

Expected return = Risk-free rate + β (Market return – Risk-free rate)

Where,

Expected Return = expected return on an asset or portfolio.

Risk-Free Rate = The rate of return on an investment that carries no risk

Beta = An indicator of an asset's systematic risk or volatility in respect to the market as a whole. A beta value larger than 1 suggests greater volatility than the market, whereas a beta value less than 1 indicates lesser volatility.

Market Return = The expected return of the overall market.

Fama and French (1992) examined the relationship between expected returns and the risk-free rate. They found that changes in the risk-free rate had a significant impact on expected stock returns, supporting the idea that variations in interest rates can affect the required returns on investments. Black et al. (1972) provided empirical evidence supporting the CAPM. They found that the systematic risk of a security, as measured by its beta coefficient, was positively related to the expected return of the security. This relationship supports the central idea of the CAPM that investors should be compensated for taking on systematic risk.

In terms of risk, the CAPM distinguishes between systematic risk and unsystematic risk. Systematic risk, also known as market risk or non-diversifiable risk, is associated with factors that affect the entire market, such as economic conditions or interest rate changes. Diversification cannot fully eliminate systematic risk. Empirical studies,

such as those by Roll (1977) and Chen et al. (1986), have confirmed the presence of systematic risk in asset pricing models. On the other hand, unsystematic risk, also referred to as specific risk or diversifiable risk, is unique to a particular business or sector and can be reduced through diversification. Studies by Banz (1981) and Lakonishok et al. (1994) have explored the impact of unsystematic risk on expected returns, providing empirical support for the notion that diversifiable risk should not be rewarded with higher expected returns.

The CAPM provides a framework for understanding the relationship between expected returns, systematic risk, and risk-free rates. Empirical studies, such as those by Fama and French (1992), Black, Jensen, and Scholes (1972), Roll (1977), Chen et al. (1986), Banz (1981), and Lakonishok et al. (1994), have contributed to our understanding of the CAPM by examining the impact of interest rates, the relationship between systematic risk and expected returns, and the role of diversifiable risk in asset pricing.

2.1.4 Relationship Between Stock Market Index and Interest Rate

Several studies have examined the relationship between interest rates and stock market indices, providing valuable insights into this complex dynamic. Nepalese scholars have contributed to this understanding through their research. Neupane (2018) found a significant relationship between deposit rate, lending rate, and T-bills with share price in Nepal. Pradhan & Dahal (2016) highlighted the influence of firm-specific factors, such as earnings per share, and macroeconomic factors, including gross domestic product and inflation, on stock prices in Nepal. Shrestha & Subedi (2014) emphasized the positive relationship between inflation and money supply growth, and the negative response to interest rates in the Nepalese stock market. Regmi (2012) stressed the importance of a well-organized stock market to attract investors, while Gurung (2004) highlighted the unpredictability and limitations of Nepal's securities market due to its small size.

Foreign literature reviews have also contributed to our understanding of the relationship between interest rates and stock market indices. Conrad (2021) illustrated the direct positive impact of expansive monetary policy and low or negative interest rates on share prices. Khalid (2017) emphasized the preference for lower interest rates to stimulate stock market activity and economic growth. Otieno et al. (2017)

highlighted the predictability of future stock market returns and the potential establishment of harmful equilibrium levels in the absence of active policy intervention. Amarasinghe (2015) found a negative relationship between interest rates and share prices, while Ali (2014) advocated decreasing rates for market efficiency and economic development.

Insights from studies focusing on interest rate and stock market returns further contribute to our understanding. Akpan & Chukwudum (2014) reveal the inverse impact of interest rate changes on share prices and the highest correlation between interest rates and GDP. . Nordin et al. (2014) demonstrated the significant influence of interest rates on the Malaysian stock market index. Khan et al. (2012) showed the negative influence of exchange rate increases on stock returns due to reduced income for foreign investors. Shah et al. (2012) found that interest rates Granger cause stock prices, suggesting a unidirectional causality.

Long-run relationships between interest rates and stock market indices have also been explored. JAWAID and HAQ (2012) explained the significant negative long-run relationship between exchange rate and short-term interest rate with stock prices and the bidirectional causality between exchange rate and stock prices. Chirchir (2012) found no significant relationship between change in interest rate and stock prices. Khrawish et al. (2010) highlighted the positive link between prevailing government interest rates and stock rates.

Insights from global studies provide additional perspectives. Alam & Uddin (2009) found significant negative relationships between interest rates and stock prices in 15 countries, except the Philippines. Lobo (2000) revealed the asymmetric negative correlation between U.S. federal funds rate and stock values, especially in daily data.

The relationship between interest rates and stock market indices is a complex interplay influenced by various factors, including monetary policies, macroeconomic indicators, and market dynamics. Studies from Nepalese scholars and foreign literature reviews contribute valuable insights into the intricate connections between interest rates and stock prices, offering important considerations for policymakers, investors, and market regulators.

2.2. Empirical Review

Lobo (2000) the study about the impact on stock values of changes in the federal funds rate target on the degree of risk aversion and uncertainty in the stock market. The result showed the price adjustment process in U.S. stock market is significantly asymmetric. It states that positive returns are more persistent than negative returns, implying that stock market participants react to news suggesting overpricing faster than to news suggesting underpricing. As change in stock price tend to exhibit negative correlation especially at lower frequency (e.g., daily) data where volatility shocks continue for almost two trading weeks, It indicates that past negative innovations have influenced volatility more than past positive innovations. Stock returns are significantly impacted by monetary policy, and certain target change announcements signal a rise in risk aversion before combined and discount rate increases. Additionally, we demonstrate that a joint goal and discount rate change provides the stock market with more information than a unilateral target change regarding the direction of future monetary policy and inflation. We also discovered shaky data that was consistent with an overreaction of some kind to negative news (rate).

Gurung (2004) stated the securities market is essential for mobilizing savings, directing them toward profitable endeavors, and a host of other functions, such as supplying liquidity for securities to reduce risk and optimize returns. The analysis of the performance of the securities market shows that while the various indicators do exhibit an unpredictable pattern over the studied period, there is no synchronization between them. This demonstrates the securities market's lack of effectiveness and dependability. Compared to the size of the overall economy, the securities market is little, and securities' liquidity is also low. These suggest that now the Nepalese capital market is passing through a bearish situation. Even after the introduction of a new system in 1993/94, the development and performance of the Nepalese securities market remain unsatisfactory, but they are improving steadily.

Alam and Uddin (2009) analyzed the effect of interest rate on stock price and changes of interest rate on changes of share price. The stock return is based on assumption of Efficient Market Hypothesis that is violated for all countries' the study performed on the weak efficiency of stock market of fifteen countries demonstrate that interest rate has significant negative relationship with share price. Both developed and developing

countries have mixed results for each individual country. In Malaysia, interest rates have no link to share prices, but interest rate changes have a negative relationship to share price changes while in Japan, there is a positive correlation between interest rates and share prices, but that there is a negative correlation between interest rate changes and share price changes. Four nations like, Bangladesh, Colombia, Italy, and South Africa show a negative correlation between interest rates and share prices as well as between interest rate changes and share price changes. As for other 8 countries like Australia, Canada, Chile, Germany, Jamaica, Mexico, Spain, and Venezuela, there is no correlation between changes in interest rates and changes in share prices, but there is a substantial negative association between interest rates and share prices. So, except Philippine all other countries showed significant negative relationship either interest rate with share price or change of interest rate with changes of share price or both therefore, if interest rates are significantly kept under control in these nations, the stock exchange will greatly profit from increased demand from investors in the share market and increased supply from corporations making extensional investments.

Khrawish et al. (2010) explained the impact of interest rates on stock market capitalization rate in Amman Stock Exchange (ASE) from 1999 to 2008. It focused on prevailing interest rate (loans and advances) and government development stock rate (discounted bills and bonds). From multiple and simple regression models, this study identifies a significant and positive relationship between the government's prevailing interest rate and stock market capitalization rate while reveals the negative effect of government development stock rate influence on stock market capitalization rate. It means there is significant and negative relationship between the government's prevailing interest rate and government development stock rate. The study suggests government interventions, including reducing taxation rates, controlling interest rates, and improving regulatory environment to encourage investment in ASE.

Jawaid and Haq (2012) studied various number of studies have been conducted to find the relationship among macroeconomic variables and stock prices, but a very few studies focused on sector wise relationship. It investigates the effects of exchange rate, interest rates, and their volatilities on stock prices of banking industry of Pakistan. The results of cointegration indicate that there is a positive and significant association between the exchange rate's volatilities and the interest rate with stock

prices, while there is a strong negative long-run relationship between the exchange rate and short-term interest rate with stock prices. The exchange rate and stock price have a bidirectional causal relationship, as confirmed by causality analysis. However, there is a one-way causal relationship between stock prices and short-term interest rates. Sensitivity analysis validates the robustness of the findings. It recommends that when interest rates and currency rates are extremely volatile, investors should buy companies in the banking industry. The outcome further validates the idea that interest rates and exchange rates can be utilized as indicators when choosing which companies to buy in the banking industry.

Khan et al. (2012) investigated the impact of interest rate, exchange rate & inflation impact on stock return of KSE 100 Index of Pakistan. In this study, independent variables such as interest rate in 6-month T-bill rate, exchange rate in PKR to $ rate and inflation in CPI (Consumer Price Index) and dependent variable as stock return are taken into consideration. The results of multiple regressions show a weal variation in the dependent variable die to independent variables. It shows that interest rate & inflation have insignificant impact on stock returns of KSE 100 whereas exchange rate has negative effect on it i.e. increase in exchange rate leads to decrease in stock returns of KSE 100 Index it is because when foreign investors receive a lower amount while converting into their own currency, resulting in reduced income and becomes less favorable for them. It also suggests an investor to analyze the exchange rate patterns and forecast the future exchange rates before investing inorder to maximize their profits.

Regmi (2012) argued that the Nepalese stock market encouraged economic expansion in the country. When creating economic policies, the stock market should be taken into consideration as a means of fostering economic growth and should be integrated into the nation's entire economic structure. The key policy implication is that the country needs an efficient favorable stock market to maintain and support strong economic growth. Therefore, the government must make significant efforts to guarantee the stock market operates competently and with organization, as this increases the likelihood that investors will be drawn to the market. The government should use appropriate trade policies to promote the inflow of international capital and foreign investment in order to enhance the nation's production capacity. It should also strengthen the Nepal Stock Exchange's capacity to check and prevent sharp practices

by market operators in order to safeguard the interests of shareholders. The government should remove obstacles to the development of the stock market, such as tax, legal, and regulatory barriers, as they can occasionally act as disincentives to investment. Finally, the government should invest more and develop the nation's infrastructure. In addition, the Nepal Stock Exchange ought to enhance its trading system to assure stock market liquidity by making it easier for investors to buy and sell shares. Furthermore, initiatives aimed at reforming the stock market could boost the economy even more and serve as a major enabler and catalyst for economic expansion.

Shah et al. (2012) explained the relationship of interest rate and share price using VAR- based Granger Causality test. The study examined the bivariate causality between 6-month Treasury bill rate and KSE 100 Index points. According to the results of the ADF test, the KSE 100 Index and interest rates were both non-stationary at initial difference but stationary overall. The long-run relationship between interest rates and stock prices was investigated using the Johansen & Juselius approach to cointegration. The results showed that there is no long-run relationship or equilibrium between the six-month Treasury bill rate and the KSE100 Index. Next, in order to determine whether there was a causative relationship between the two variables, the VAR-Granger causality test was used. The test findings showed that while stock prices do not Granger affect interest rates, interest rates do cause stock prices. The study found that interest rates can influence the stock market for up to three months.

Ali (2014) studied the impact of interest rates on stock market of Pakistani market based on data from 2004 to 2013. This study shows the negative moderate relation between stock market and interest rate (i.e. ≥ 0.2 to < 0.5). It explains that interest rates have negative impact on stock market, asserting that higher interest rate leads to lower efficiency in the stock market because investor secure higher return without taking risk into their account. This study suggest that a government should lower the interest rate for the economic development in long run for a better economy. However, interest rates are not the sole factor influencing the stock markets, there are other factors such as inflation rate which results the negative effect on stock market.

Akpan and Chukwudum (2014) examined the impact of interest rates change on Nigerian Stock Exchange (NSE) market. It shows that the historical relationship

between CBN's interest rate and the ASI of the NSE is an inverse one. This study used a bivariate and multi variable regression analysis models for periods of interest rates hike and cuts. It highlights distinct pattern in the stock markets response to interest rate changes. The difference between the long-term average annual price percent change and annual price percent change during rate hike periods is unimpressive while rate cut cycles response is impressive. It reveals that the interest rate has a moderate correlation (-0.5) with the ASI while GDP (0.81) has the highest correlation with ASI. The effect of interest rate on the ASI is very insignificant. It implies that there is inverse relationship between Central Bank of Nigeria (CBN's) interest rate and ASI of NSE. However, a continuous hike on interest rates is not considered as a best interest for broader economy.

Nordin et al. (2014) investigated the impact of selected macroeconomic variables like interest rate and exchange rate on the stock market index by particularly focusing on the Malaysian stock market. It investigates the possible impact of commodities prices, such as those of palm oil, oil, and gold, on the stock market index. The existence of cointegration relationships for all models, where each model used a different commodity price, is determined by applying a bounds test approach. This is because there is a chance that investors could earn excess returns, or if the market is efficient, they won't be able to earn any abnormal returns. The efficient market condition, which states that prices should always fully represent available information, is partially violated when cointegration is present. Because of this, active investors have the chance to profit from aberrant returns before the variables settle into long-run equilibrium connections. It was discovered that there is a negative correlation between the interest rate and both the exchange rate and the stock market index. Businesses are shielded from the negative effects of shifting oil prices to some extent. For instance, increases in the price of oil may have very little impact on them. The study's findings demonstrated cointegrating correlations between the performance of stock prices, interest rates, exchange rates, and each of the chosen commodities. Therefore, policy makers may wish to consider how laws or policies affect these factors in addition to pursuing economic goals like achieving full employment or a low rate of inflation. The reason for this is that the implementation of related policies should be carried out with caution as they may have a negative impact on the stock market as a result, a weak stock market may also lead to a weak economic condition.

Shrestha and Subedi (2014) examined the determinants of stock market performance in Nepal, which has been going through up and down in recent years. Since stock market tends to be highly sensitive and volatile, it determines stock market index on monthly data. The Nepalese stock market demonstrates a strong positive correlation with inflation and the growth of money supply, while showing a negative response to interest rates. This indicates a trend where individuals increasingly view the stock market as a hedge against inflation, investing more when liquidity is abundant and interest rates are low. Political changes and policies set by the NRB significantly influence stock market performance, echoing findings from previous studies (Dangol, 2008). Political stability and the NRB's lending policies against share collateral play crucial roles in shaping market dynamics. The study suggests several policy implications: firstly, the Nepalese stock market is highly responsive to macroeconomic developments, especially in the monetary sector; secondly, loose monetary policies could potentially inflate asset prices in the stock market, which is dominated by banks and financial institutions; thirdly, investors closely monitor political developments, impacting financial intermediation and capital mobilization through the stock market; fourthly, the NRB's policies regarding lending against shares effectively influence market behavior, underscoring its pivotal role. Given that market behavior is also influenced by rumors, news, and speculation, enhancing transparency and communication in the market by making information about listed companies more accessible is crucial to dispelling uncertainties.

Amarasinghe (2015) stated the causal relationship between interest rate and stock prices. The Augmented Dickey Fuller test was employed to assess the stationarity of the dataset, confirming that the first difference of both the ASPI and interest rate was stationary. Subsequently, the Granger Causality Test was conducted to explore any causal relationship between interest rates and ASPI (stock prices). The findings indicated a unidirectional causality: ASPI does not Granger Cause interest rates, whereas interest rates do Granger Cause ASPI. This suggests that changes in interest rates influence stock prices. To further validate these results, a regression analysis was performed on the stationary data. The regression affirmed the outcomes of the Granger Causality test, revealing that interest rates significantly impact stock price changes and demonstrating a significant negative relationship between the variables.

Pradhan and Dahal (2016) stated that a large number of studies have been conducted to investigate the variables influencing the share price in developing nations. The factors affecting the share prices of Nepalese commercial banks are examined in this study. As is well known, daily fluctuations occur in the price of stocks on the market. The most obvious influencing elements are those related to supply and demand, and both macroeconomic and microeconomic factors have an impact on the price of any commodity. In this case, book value per share, earnings per share, divided per share, market price per share, return on assets, and size were considered independent variables, and earning per share, earnings ratio, and size was chosen as the dependent variable. Similarly, the money supply, inflation, and gross domestic product were selected as independent macroeconomic variables. The data was gathered from the annual reports of a few selected banks as well as the banking and financial statistics and supervisory report published by Nepal Rastra Bank. In order to examine the effects of macroeconomic and firm-specific factors on the share price of Nepalese commercial banks, multiple regression models were estimated. In the context of Nepal's commercial banks, it demonstrates that firm-specific metrics such profits per share, divided per share, price earnings ratio, book value per share, return on assets, and size are the main predictors of stock price. Size is determined to be the most significant influencing factor on the share price among the variables. It suggests that when a firm grows in size, its stock price would also rise. In terms of macroeconomics, the money supply, inflation, and gross domestic product have the greatest effects on share price.

Khalid (2017) investigated the relationship between aggregate market capitalization, interest rates, and exchange rates using annual data from Pakistan. The regression model initially proposed did not meet expectations, as indicated by the Augmented Dickey Fuller (ADF) test showing that all variables were non-stationary at the level but stationary at their first differences. Applying the Johansen Jeselius cointegration approach revealed that all three data series were cointegrated, suggesting a long-term relationship where interest rates had an inverse effect and exchange rates had a positive impact on Pakistan's stock market volatility. Parameter estimates from all regressions were statistically significant. In terms of variance decomposition analysis, market capitalization was found to have a greater short-term impact compared to the long-term. Granger causality analysis revealed a unidirectional causality from

exchange rates to interest rates, but no such relationship was found among the other variables in the system. The study offers several policy recommendations to enhance Pakistan's financial sector, such as reducing interest rates to stimulate economic growth and encourage stock market activity, thereby controlling inflationary pressures. It also suggests that the central bank implement an expansionary monetary policy to attract new investors to the Pakistani stock market, potentially stabilizing exchange rate depreciation. Overseas investors are advised to consider the volatile nature of the Pakistan Stock Exchange (PSX) market when making investment decisions, as stock market volatility can affect exchange rates and pose exchange risk concerns.

Otieno et al. (2017) studied on behavior of stock market returns, 3-month Treasury Bills rate, lending rate and their cointegrating residuals remains unsettled. The ARFIMA-based exact maximum likelihood (EML) approach was used to empirically determine the integration orders of the individual variables and that of the cointegrating residuals. The study also conducted conventional Granger causality as well as ARFIMA-based Granger causality tests to examine causal relationships between the measures of interest rate and stock market returns in a bivariate framework. The ARFIMA-based EML test findings suggest long memory in all individual variables and their cointegrating residuals. This indicates that shocks to variables such as the 3-month Treasury Bills rate, lending rate, and stock market returns persist over time but eventually dissipate. Cointegrating residuals being fractionally integrated suggests the potential establishment of a new long-term equilibrium when interest rates diverge from stock market returns. Moreover, the results highlight that both the 3-month Treasury Bills rate and lending rate negatively Granger cause stock market returns in the long run, implying they compete as investment assets. Conversely, in the short run, ARFIMA-based Granger causality analysis indicates that stock market returns lead the 3-month Treasury Bills rate and lending rate negatively. This suggests that a thriving stock market contributes to a favorable macroeconomic environment.

Neupane (2018) conducted a study examining the relationship between interest rate variables—Weighted Average Deposit Interest Rate, Weighted Average Lending Interest Rate, Bank Rate, and T-bills Rate—and the Nepalese stock market (NEPSE Index). The study found that these interest rate variables collectively explain 67.9% of

the variation in stock market movements, indicating their significant influence. Specifically, deposit rate, lending rate, and T-bills rate were observed to have a significant negative impact on share prices, while bank rate did not show a significant relationship with share prices. Correlation analysis revealed negative relationships between deposit rate, lending rate, and T-bills rate with share prices, while T-bills rate exhibited positive associations with lending rate and bank rate. Beta coefficients further underscored these findings, showing positive and significant impacts for weighted deposit interest rate, negative and significant impacts for weighted lending interest rate, and negative but insignificant impacts for bank rate. Overall, the study suggests that fluctuations in deposit rate, lending rate, and T-bills rate play a crucial role in influencing the Nepalese stock market, highlighting the importance of interest rate policies in shaping market dynamics.

Nepal (2019) delved into the relationship between interest rates and stock market performance, with a particular focus on the challenges this poses for investors. The objective of the study is to shed light on how changes in interest rates can complicate investment decisions. Employing an exploratory research methodology, the paper covers a broad spectrum, including the industrial sector, stock market dynamics, and governmental policies. A wide array of resources, ranging from books and PDFs to online articles, journals, and magazines, were utilized to draw conclusions. The major finding of the research is the inverse correlation between interest rates and stock prices, highlighting that even slight shifts in interest rates can lead to substantial fluctuations in the stock market. This volatility creates a sense of insecurity among investors, posing a significant challenge to economic stability since investment drives productivity and growth. The study concludes by underscoring the importance of maintaining an investment-friendly environment to safeguard investor interests and stimulate economic development.

Mishra and Pokharel (2020) investigated the impact of interest rates on stock prices in Nepal's market, utilizing time-series monthly data from 2010 to 2019. The research examines the connection between the NEPSE index and the 90-day T-Bill interest rate through an autoregressive distributed lag model and error correction model to decipher the Nepal stock market's behavior. The study's estimations are validated using a cumulative sum of recursive residual tests. The results indicate that while interest rates significantly affect stock prices in the short term, no long-term

relationship exists between the two. This research aids in understanding the Nepal stock market's dynamics and informs policy development for market stabilization. Notably, this study is the first to analyze the monthly data impact of interest rates on stock prices in the Nepalese context.

Conrad (2021) explores the impact of changes in money supply and interest rates on share prices, highlighting that increases in money supply and decreases in interest rates directly boost share prices. Conversely, sharp increases in interest rates and reductions in money supply can trigger stock market crashes due to rapid portfolio adjustments and declining asset values. This underscores the importance for central banks to consider not only the impact of interest rates on real economy investments but also their potential to create boom and bust cycles through expansive monetary policies with low interest rates. Additionally, Conrad discusses the measurement of inflation, noting that focusing solely on consumer goods prices rather than including producer prices can lead to unpredictable inflation dynamics when interest rates are lowered, encouraging greater risk-taking. Lower interest rates have shifted investment focus towards shares as higher-yield alternatives, resulting in increased share prices driven by interest rate reductions rather than improved core business profitability. This study emphasizes that traditional metrics like price-to-earnings ratios may not adequately reflect market conditions during periods of interest rate-driven price inflation, potentially masking underlying market bubbles. Conrad argues for cautious monetary policy adjustments to avoid financial crashes akin to historical events like the 1929 crash, which can destabilize both financial systems and the real economy. Central banks are urged to factor these considerations into their policymaking processes to mitigate such risks effectively.

Sitasari and Firmansyah (2022) analyzed the effects of inflation, exchange rates, and interest rates on stock prices within the high-performing financial sector on the Indonesia Stock Exchange over the decade from 2010 to 2020. The study's objective is to understand how these economic indicators influence investor interest in financial sector companies. Adopting a quantitative approach, the researchers utilized data from the specified period and applied classic assumption tests along with multiple regression analysis for data processing. The research revealed that collectively, inflation, interest rates and exchange rates have a significant impact on stock prices. When examined individually, the study found that exchange rates positively influence

stock prices, interest rates have a negative effect, and inflation does not significantly affect stock prices. The research model explains 78% of the variance in stock prices. The conclusion of the study is that exchange rates and interest rates are significant determinants of stock prices in the financial sector, despite inflation not showing a notable effect.

Novandi and Falah (2023) explored the factors affecting the Indonesia Composite Index (IHSG), which reflects the overall share price movements on the stock exchange. The study's objective is to analyze how interest rates, exchange rates, and inflation correlate with IHSG fluctuations, which is vital for investors, market players, and economic decision-makers. The methodology involves linear regression with a time series approach, examining historical data of IHSG alongside the mentioned economic indicators. The findings reveal that interest rates, exchange rates, and inflation significantly influence IHSG movements. Specifically, high inflation is detrimental to IHSG as it erodes purchasing power and company profits. Conversely, low interest rates positively impact IHSG by prompting investors to channel funds into riskier assets like stocks. Additionally, a robust exchange rate bolsters IHSG by enhancing foreign investor confidence in the Indonesian market. The study concludes that a comprehensive understanding of these economic variables' interplay is essential for informed investment decisions and policy formulation.

Table 1

Meta Table

Author(s)	Objective	Methodologies	Major Findings.
Novandi and Falah (2023)	To explore factors affecting the Indonesia Composite Index	Linear regression with time series approach	. Interest rates, exchange rates, and inflation significantly influence stock index movements.
Sitasari and Firmansyah (2022)	To analyze the effects of inflation, exchange rates, and interest rates on	Quantitative approach, multiple regression analysis	Exchange rates positively influence stock prices; interest rates have a negative

	stock prices in Indonesia		effect; inflation is not significant
Conrad (2021)	To experiment the effects of money supply and interest rates on share prices	Analysis of monetary policy impacts on stock market	Increase in money supply and decrease in interest rates positively impact share prices; risk of speculative bubbles.
Mishra and Pokharel (2020)	To examine the impact of interest rates on stock prices in Nepal	Autoregressive distributed lag model, error correction model	Short-term impact of interest rates on stock prices; no long-term relationship found.
Nepal (2019)	Nepal (2019) To study the relationship between interest rates and stock market performance in Nepal	Exploratory research methodology	Inverse correlation between interest rates and stock prices, creating investment challenges.
Neupane (2018)	To investigate the impact of interest rates on Nepalese stock market	Correlation and regression analysis	Shows a significant negative impact of share prices on deposit, lending, and T-bills rates
Khalid (2017)	To explore the linkage between market capitalization, interest rates, and exchange rates in Pakistan	Cointegration, variance decomposition, and Granger causality analysis	Long-term inverse relationship between interest rate and stock market; exchange rate has a positive impact.
Otieno et al.	To analyze the	ARFIMA-based exact	Treasury Bills rates

(2017)	behavior of stock market returns and interest rates in Kenya	maximum likelihood approach, Granger causality tests	and lending rates cause negatively Granger stock market returns in the long run
Pradhan and Dahal (2016)	To study factors influencing Nepalese commercial banks' share prices	Multiple regression analysis using firm-specific and macroeconomic variables	Firm-specific factors and GDP significantly influence share prices.
Amarasinghe (2015)	To investigate the causal relationship between interest rate and stock prices in Sri Lanka	Granger causality test, regression analysis	Interest rate influences stock prices with a significant negative relationship.
Akpan and Chukwudum (2014)	To examine the impact of interest rate changes on Nigerian Stock Exchange market	Bivariate and multivariable regression analysis	Inverse relationship between interest rate and stock market index; moderate correlation between variables.
Ali (2014)	To investigate the impact of interest rate on Pakistani stock market	Correlation and regression analysis	Moderate negative relationship between interest rates and stock market efficiency.
Nordin et al. (2014)	To study the impact of macroeconomic variables on Malaysian stock market index	Bounds test approach	Negative relationship between interest rate and stock market index; cointegration

			between variables.
Shrestha and Subedi (2014)	To examine the determinants of stock market performance in Nepal	Regression analysis on monthly data	Stock market performance is influenced by macroeconomic developments, political changes, and NRB's policy
Jawaid and Haq (2012)	To study the effect of exchange rate, interest rates, and their volatilities on stock prices in Pakistan	Cointegration and causality analysis	Negative long-run relationship between exchange rate and interest rate with stock prices; bidirectional causality between exchange rate and stock prices.
Khan et al. (2012)	To examine the impact of interest rate, exchange rate, and inflation on stock return in Pakistan	Multiple regression analysis	Exchange rate negatively affects stock returns; interest rate and inflation have insignificant impacts.
Regmi (2012)	To analyze the role of the stock market in promoting economic growth in Nepal	Policy analysis	Stock market positively influences economic growth; government should ensure efficient market operations
Shah et al. (2012)	To explore the relationship	VAR-based Granger causality test	Interest rates Granger cause stock

	between interest rate and share price in Pakistan		prices but not vice versa.
Khrawish et al. (2010)	To investigate the impact of interest rates on stock market capitalization rate in Amman Stock Exchange	Multiple and simple regression models	Positive relationship between government's prevailing interest rate and stock market capitalization; negative effect from government development stock rate.
Alam and Uddin (2009)	To analyze the effect of interest rate on stock prices in fifteen countries	Regression analysis, correlation study in developed and developing countries	Interest rates have a significant negative relationship with share prices in most countries studied.
Gurung (2004)	To examine securities market performance in Nepal	Performance analysis of Nepalese securities market indicators	Securities market performance is unsynchronized, small, and lacks liquidity.
Lobo (2000)	To study the impact of changes in the federal funds rate target on stock values and market behavior	Analysis of U.S. stock market reactions to changes in federal funds rate target	Price adjustments in the stock market are asymmetric; positive returns persist longer than negative ones

2.3 Research Gap

After reading the literature review of different scholars, this study draws the ideas concerning the effect of various factors of interest rate on share price. It can be helpful

for receiving some ideas, knowledge and suggestion in relation to maintain good interest rate policies and stock price hence research is necessary. This continuity research is ensured by linking the present study with the past data. In order to complete this research many books, journals, articles and various published and unpublished dissertation and field option are followed as guideline to make the research easier and smooth though the reference materials. The research gaping helps the researcher to analyze the trend of interest rate and stock price of Nepal. The gaping between real data and research work will be focused and filled up based on the given objectives and limitations in this research which is explain in this topic.

The effect of interest rates on Nepal's stock market is determined by earlier studies and research. For this, various studies have been conducted and found out the relationship between interest rate and share price. After reviewing earlier research, it was discovered that no studies had been conducted using NRB base rate, unemployment rate and GDP rate in the context of Nepal. Although the analysis is based on data from NEPSE and NRB, the researcher has taken samples from the Nepalese stock market and other macro- and microeconomic parameters.

From the study of previous literature, it was found that researchers only analyzed the market trend of interest rates like deposit and lending with other financial indicators but this study has examined those internal factors that play important role in determining share price This study also examines the impact and relationship of stock price with other variables like interest rate, inflation rate, unemployment rate and GDP of a country. Most of the previous researches have analyzed only the qualitative factors affecting stock price but this research is based on quantitative factors affecting stock price where various statistical tools are conducted. Using secondary data, the researcher has studied the behavior and movement of stock prices. In summary, the current investigation is being done to fill in the gaps and ascertain the subjective facts.

Interest rates wield a significant influence on stock market indices, as evidenced by various studies. Higher interest rates typically prompt investors to shift capital away from equities to safer investments like bonds and savings due to increased borrowing costs, stifling corporate expansion and potentially diminishing profits and dividends, thereby dampening stock market appeal. Conversely, lower interest rates encourage investment in stocks for higher potential returns. However, empirical evidence

indicates that stock market movements are not solely dictated by interest rates; factors such as economic growth, political stability, and monetary policies also exert substantial influence. Even amidst high interest rates, positive economic indicators like favorable exchange rates, controlled inflation, and robust GDP growth can buoy stock market performance. Given that interest rates are shaped by national monetary policies, policymakers must carefully calibrate strategies to attract investors and bolster market vitality, particularly in export-driven economies where competitive exchange rates can enhance national income and stimulate investor interest in the stock market. Thus, a nuanced approach to monetary policy is crucial for fostering a resilient and attractive investment climate in the stock market.

CHAPTER III

RESEARCH METHODOLOGY

This chapter examines the strategies used in the research process to achieve the study's stated goals. The research approach examines the study procedure for determining how interest rates affect the NEPSE share market. For the purpose of simplification, the broad process of research methodology has been further divided into a number of subtopics, including research design, sample description, instrumentation, data collection process and timeliness, data analysis technique, analysis strategy, and study limitations. The primary goal of the study is to examine how interest rates affect the NEPSE share market.

3.1 Research Design

The research plan and design is a technique that helps to identify the relationship between the dependent and independent variables. It is the comprehensive understanding of the relationship between NRB average base rate and closing value of NEPSE Index at the end of each year. It is the methods and procedures of collecting and analyzing the required data. It provides guideline to the researchers about the research study. It helps to investigate how one variable affects another variables.

A descriptive research strategy is used in this study to implement the quantitative method. In this study, the data has been taken from several years to determine the correlation between interest rate and share price. The analysis has been done by observing the trend analysis of NEPSE along with different interest rates, inflation rates, unemployment rates and GDP etc. Then after the data are measured in correlation analysis. This study not only gives the current situation but also shows clear picture of the economic conditions.

3.2 Population and Sample

In this research, populations are based on NEPSE All Price Share (APS) index with others variables like NRB rate, inflation rate, unemployment rate, GDP etc. As for the sample for the study, Central Bank's average base rate during a year & NEPSE closing price of each fiscal years starting from 2003/04 to 2022/23 has been taken. Similarly, for the inflation, unemployment and GDP rate data are collected through different economic and finance journal and articles through online. All of this data has been collected measuring the year from /04 to 2022/23.

3.3 Nature and Sources of Data

The study is conducted to find out the relationship between interest rate and share price. This study is conducted on the basis of secondary data. In this section data are collected and analyzed from different sources like NRB, NEPSE, journals, financial websites etc. Since NRB and NEPSE are government organization, so it was easier to find the data for the government website. As for the others like inflation, unemployment and GDP rate, the data are collected from the economic journal, magazines, published reports and documents from various sources especially for the time period from 2003/04 to 2022/23. The collected data are tabulated and analyzed in time series as per requirement.

3.4 Data Collection Procedures

In this topic, it explains how data are collected for the study. Here, the data are collected from different sources such as publishing sources, websites. The financial report of NEPSE was collected through closing value of NESPE at the end of the year. Similarly, for NRB, average base rate of the Nepal Rastra Bank (NRB) is taken as data. At last, for others variables like inflation rate, unemployment rate and GDP rate, economic survey past record was taken for the data and for the further study different published report, articles, book, journal are also analyzed. Here, the collection of data is mainly focus on interest rate and share price.

3.5 Method of Data Analysis.

The primary objective of the study is to explore the impact of interest rates on share prices in the Nepalese Stock Exchange (NEPSE). In order to find the relationship between interest rate and share price, financial and statistical tools have been used following certain steps and procedures. In this topic, descriptive statistics has been used for the sample observations like mean, median and standard deviation, etc.. Following this, correlation analyses are conducted to examine the associations between dependent and independent variables. The study further employs stepwise regression analysis to identify significant predictors of share prices based on interest rates. Statistical tests including tests of significance, standard error of estimate, t-tests, and p-values are utilized to ensure the robustness and validity of the findings. Quantitative data collected from various sources such as published articles, reports, journals, and research papers are processed using SPSS software for thorough analysis. The study also incorporates measures like t-tests and F-tests to assess the

reliability and validity of the results derived from secondary data sources. These data were collected from different published articles, report, journal, research paper etc. and arranged in SPSS software for analyzing it.

3.5.1 Descriptive Analysis

Descriptive analysis involves summarizing and organizing the data to understand its general characteristics. In this study, the arithmetic mean ($\bar{X}$) and standard deviation (σ) are used as primary tools for descriptive analysis. The arithmetic mean provides a measure of the central tendency by calculating the average value of the stock prices, interest rates, inflation rates, unemployment rates, and GDP growth rates. These tools help to summarize the data and provide an initial understanding of the distribution and variability of the variables in the study, offering a foundation for further analysis. They are explained below

3.5.1.1.: Arithmetic Mean ($\bar{X}$): Arithmetic mean is the average or sum of all values divided by the total number. It is denoted as ($\bar{X}$). It is one of the widely used statistical tool for finding out the average value of a data.

The mean can be expressed symbolically as,

$$\text{Arithmetic Mean } (\bar{X}) = \frac{\sum x}{n}$$

Where, $\bar{X}$= Arithmetic mean

$\sum$x = Sum of all the values of the variable X

n= Number of observations

3.5.1.2.: Standard Deviation (σ): The standard deviation is denoted by the letter sigma (σ) which measures the absolute dispersion of data. It is defined as the positive square root of the arithmetic mean divided by the square of the variances from it. The standard deviation and magnitude increase with increasing dispersion value.

It is written symbolically as:

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

Where, σ = Standard deviations

n= number of observations

$\bar{X}$= Arithmetic mean

3.5.2 Correlation Analysis

Correlation analysis is employed to examine the strength and direction of the linear relationship between two variables. In this study, Pearson's correlation coefficient (r) is used to analyze the relationships between stock prices and the independent variables: interest rates, inflation, unemployment and GDP growth rate. The correlation coefficient ranges from -1 to 1, where a value of 1 indicates a perfect positive linear relationship, -1 indicates a perfect negative linear relationship, and 0 indicates no linear relationship. This analysis helps to identify whether a significant statistical association exists between the stock prices and the macroeconomic variables, providing insights into how these variables are interrelated.

In this research, Pearson correlation known as bivariate correlation analysis is used inorder to determine whether a statistical association exists within or between two variables, and whether one variable may be predicated from another. Correlation coefficients (r) represents the relationship between two variables which range from -1 (perfect negative linear relationship) or 1 (perfect linear relationship), with 0 denoting no link. Positive coefficients indicate a direct relationship, it means a rise in one measure is accompanied by an increase in the other. The two variables have no relationship when the correlation value is zero. Negative correlation coefficients indicate an indirect relationship, in which one measure increases while the other decreases. It is calculated as,

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{\{n\sum x^2 - (\sum x)^2\}\{n\sum y^2 - (\sum y)^2\}}}$$

3.5.3 Regression Analysis

Regression analysis is a powerful statistical tool used to predict the value of a dependent variable based on the values of one or more independent variables. This study utilizes both simple and multiple regression analysis to understand the impact of macroeconomic factors on stock prices. This analysis helps to determine the relative impact of each independent variable on stock prices, offering a detailed understanding of how these macroeconomic factors specially related to interest rate collectively influence the stock market. The regression model of the study is as follows:

3.5.3.1. Simple regression analysis: The simple regression equation is one of the commonly used equation for describing the correlation between dependent variable and independent variable. It predicts the value of dependent variable based on value of independent variable. It is expressed as***;***

$Y = a + bx$

Where, y= dependent variable
x=independent variable
a= regression constant
b=regression coefficient

3.5.3.2. Multiple Regression Analysis: Multiple regression is a more complex version of simple linear regression. It determine the relationship between dependent variable with more than one independent variables. It explains how the independent variables effect on dependent variable. It is calculated by using following formula***;***

$$Y_1 = b + b_1x_1 + b_2x_2 + \ldots + b_nx_n + e_1$$

In this research, we study how an independent variable ie. Interest rate determine the value of dependent variable as stock price. According to simple linear equation, it is expressed as;

Stock Price (y) = $a + a_1$ interest rate + e

After the study, we know that not only interest rate affects the share price but also there are various factors such as inflation rate, unemployment rate and GDP etc. which cause the changes in share price. It is expressed as below;

Share Price$_1$ = $b + b_1$.interest rate + b_2.inflation rate+ b_3.unemployment rate+ b_4GDP + e

Where; a, b = regression constant
a_1, b_1, b_2, b_3, b_4 = regression coefficient
e, e_1 = error

3.6 Research Framework and Definition of Variables

The research framework for this study investigates the impact of key macroeconomic variables on stock market performance, specifically examining the relationship between the interest rates, inflation, unemployment and GDP growth rates as independent variables, and the stock index as the dependent variable. This framework integrates these variables to analyze their collective influence on stock market dynamics, providing insights into how macroeconomic conditions shape market

behavior. The variables for the study are derived from the multiple empirical studies from global and Nepalese context. The research framework proposed for the study is presented in Figure 1 which shows the independent and dependent variables used in this study.

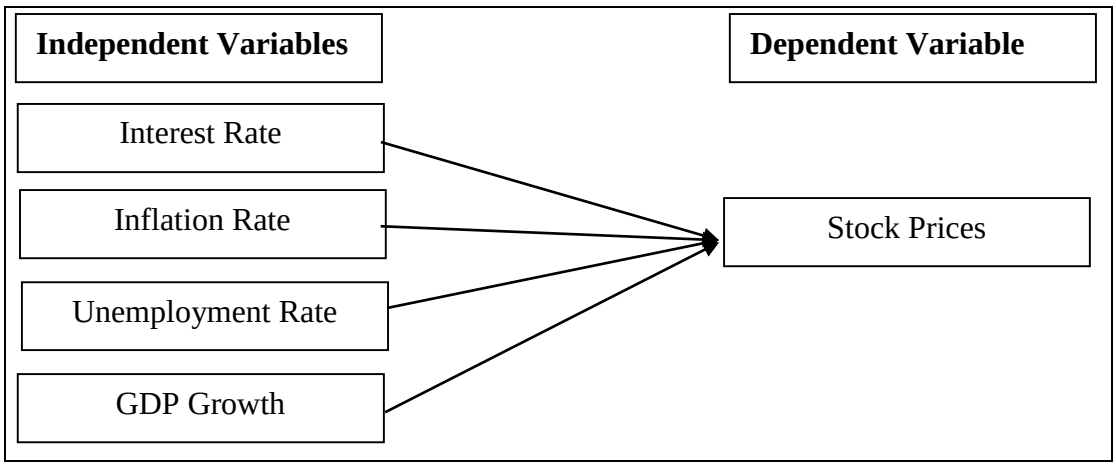

Figure 1. Research Framework

Source: Pradhan and Dahal, (2016); Khalid (2017); Neupane (2018); Sitasari and Firmansyah, (2022)

3.6.1 Stock Prices

Stock prices represent the market value of publicly traded companies and serve as a critical indicator of market performance and investor sentiment. They fluctuate based on a myriad of factors including company performance, investor expectations, and broader economic conditions. Stock prices are determined through the interactions of supply and demand in the stock market, reflecting the collective assessment of all market participants regarding the value of a company's shares. Accurate stock price data can be sourced from financial exchanges, financial news platforms, and market analysis reports (Fama, 1970; Campbell, 2000). As the dependent variable in this study, stock prices will help illustrate how macroeconomic factors impact overall market trends and investor behavior.

3.6.2 Interest Rate

The interest rate is the cost of borrowing money, typically expressed as an annual percentage of the loan amount. It is a crucial tool of monetary policy used by central banks to control inflation, manage employment levels, and stabilize the currency. Changes in interest rates can significantly influence economic activities, affecting

consumer spending, business investment, and overall economic growth. Lower interest rates tend to stimulate economic activity by making borrowing cheaper, whereas higher rates can slow down the economy by increasing borrowing costs (Bernanke & Blinder, 1992; Mishkin, 2007). Data on interest rates is generally available from central banks, financial institutions, and government publications.

3.6.3 Inflation Rate

The inflation rate measures the rate at which the general level of prices for goods and services rises, eroding purchasing power. It is a critical indicator of economic health, influencing central bank policies, wage negotiations, and investment decisions. High inflation can lead to increased uncertainty in the economy, affecting consumer spending and saving behaviors, while low or negative inflation can signal weak demand and economic stagnation (Fischer, 1993; Taylor, 1999). Inflation data is usually sourced from national statistical agencies, central banks, and international financial organizations.

3.6.4 Unemployment Rate

The unemployment rate is the percentage of the labor force that is jobless and actively seeking employment. It is a key indicator of labor market conditions and overall economic health. High unemployment rates can indicate economic distress and lead to lower consumer spending, while low unemployment rates suggest a robust economy with high levels of job creation and consumer confidence (Phillips, 1958; Blanchard & Diamond, 1989). This data is typically collected by government labor departments, national statistical offices, and international labor organizations.

3.6.5 GDP Growth

The GDP growth rate measures the increase in a country's economic output and is a primary indicator of economic health. It reflects the value of all goods and services produced over a specific time period and is used to gauge the economic performance and standard of living within a country. Positive GDP growth signals a growing economy with expanding business activities and increasing employment, while negative growth indicates economic contraction and potential recession (Solow, 1956; Barro, 1991). GDP data is generally obtained from national economic surveys, central banks, and international financial institutions like the World Bank and IMF

CHAPTER IV
RESULTS AND DISCUSSIONS

In this section the study about the data collection purpose. Here the data are collected through different process, identified and maintained in table. They are analyzed and explained through statistical and financial tools in detail. It involves recognizing problems, figuring out which data are available and how to use them to answer the questions, then assessing, condensing, and drawing conclusions from the findings. In order to address various rates and their effects on share prices, this chapter deals with the interpretation, analysis, and presentation of secondary data. This chapter makes use of the statistical instruments covered in Chapter 3. There are two subsections in this chapter. In first part, all the data which are collected from secondary source are presented, identified and analyzed by using different figures and tables. And they are described, calculated and presented to find the possible outcomes. On other hand, the second part describes about the results of evaluation and interprets it.

4.1. Results

In this section, the data are collected from various secondary sources such as journals, research papers, websites, and government publications. These data are organized into tables and presented in charts for better understanding. The study uses the closing prices of the Nepal Stock Exchange (NEPSE) for each fiscal year from 2014 to 2023. For the independent variables, the average base rate is obtained from the official website of the Nepal Rastra Bank (NRB), while other variables such as inflation, unemployment, and GDP rates are also sourced from Nepal Rastra Bank.

This section is divided into three sub-sections. First, the trend of study variables is presented in figures and then discuss the descriptive analysis, where it is summarized and describe the main features of the data, providing an overview of the dataset. In the second part, a correlation analysis is conducted to examine the relationships between the stock prices and the independent variables. Finally, in the last part, a regression analysis is performed, where the impact of the independent variables on the stock prices are explored. In this part, the ANOVA test and p-value are also discussed to test and evaluate the statistical significance of our regression mode.

Table 2 shows the summary of descriptive statistics of study variables with 20 observations for each variable.

Table 2:

Different independent variables rate and NEPSE closing index.

Fiscal Year	NEPSE Index	Interest Rate	Inflation Rate	Unemployment Rate	GDP Growth
2003/04	389.7	5.5	3.96	10.68	4.68
2004/05	397.45	5.5	4.54	10.68	3.48
2005/06	384.7	6.25	7.96	10.68	3.36
2006/07	345.4	6.25	5.90	10.68	3.41
2007/08	963.36	6.5	6.70	10.67	6.10
2008/09	749.1	6.5	12.63	10.66	4.53
2009/10	477.73	6.75	9.60	10.65	4.82
2010/11	362.9	7.5	9.64	10.66	3.89
2011/12	389.7	7.25	8.30	10.67	4.67
2012/13	518.3	8.56	9.90	10.65	3.53
2013/14	1036.1	8.36	9.1	10.58	6.01
2014/15	961.2	7.88	7.21	10.51	3.98
2015/16	1718.2	6.5	9.92	10.4	0.43
2016/17	1582.7	9.9	4.47	10.66	8.98
2017/18	1212.4	10.47	4.15	10.62	7.62
2018/19	1259	9.57	4.64	10.6	6.66
2019/20	1362.4	8.5	6.15	13.08	-2.37
2020/21	2883.4	6.86	3.6	12.22	4.84
2021/22	2009.5	9.54	6.32	11.12	5.61
2022/23	2097.1	10.03	7.74	10.92	1.86

Source: NRB Reports from 2003/04 to 2022/23

4.1.1 Descriptive Analysis

Descriptive analysis is utilized to examine and present the characteristics and associations between the variables. The study likely involves collecting data on the NEPSE index (Stock Price) as dependent variable and the interest rates (Base Rate), inflation rates, unemployment rates and GDP growth rates as independent variables. Descriptive analysis techniques measures of central tendency and dispersion are used to summarize and analyze the data.

Table 3

Descriptive Analysis

Variables	N	Min	Max	Mean	S.D.
NEPSE Index (Stock Price)	20	345.40	2883.40	1055.02	714.55
Interest Rate (Base Rate)	20	5.50	10.47	7.71	1.57
Inflation Rate	20	3.60	12.63	7.12	2.50
Unemployment Rate	20	10.40	13.08	10.87	0.64
GDP Growth	20	-2.37	8.98	4.30	2.47

In table 2 and 3, The NEPSE Index has shown a varied trend over the years. From 2003/04 to 2006/07, the index declined, followed by a significant upward trend from 2007/08 to 2015/16, reaching its peak at 1718.2. After some fluctuations, the index reached a high of 2883.4 in 2020/21, but experienced a decline in 2021/22 and 2022/23. Overall, the NEPSE Index reflects the dynamic nature of the stock market, impacted by economic conditions, investor sentiment, and market dynamics. Investors should carefully consider these factors when making investment decisions. The .NEPSE Index has exhibited significant variability, with its values ranging from a low of 345.40 to a high of 2883.40. This wide range indicates periods of both substantial market growth and decline. The mean NEPSE Index over this period is 1055.02, suggesting that, on average, the stock prices have been relatively moderate despite the extremes. The standard deviation of 714.55 highlights the high volatility in the stock market, reflecting the influence of various economic, political, and global factors on investor sentiment and market performance.

Interest rate data which has fluctuated over the years. From 2003/04 to 2006/07, the interest rate remained relatively stable at 5.5% and 6.25% respectively. It then increased gradually from 2007/08 to 2010/11, reaching a peak of 7.5%. Subsequently, the interest rate experienced some fluctuations, with both increases and decreases until 2016/17 when it reached 9.9%. From 2017/18 to 2020/21, the interest rate fluctuated between 6.86% and 10.47%. In 2021/22 and 2022/23, the interest rate increased further to 9.54% and 10.03% respectively. Although higher interest rates may have the opposite impact, lower interest rates may be able to boost stock market activity and raise stock values. However, it's crucial to consider other economic

indicators and market dynamics when analyzing the stock market's performance. The mean interest rate during this period is 7.71%, suggesting that, on average, borrowing costs have been moderately high. The standard deviation of 1.57 indicates relatively moderate variability in the interest rates, reflecting the central bank's efforts to manage inflation and stabilize the economy through monetary policy. Changes in the interest rate impact consumer spending, business investments, and overall economic growth, making it a vital variable in economic analysis.

Inflation rate which has experienced fluctuations over the years. Inflation refers to the general increase in prices of goods and services over time. From 2003/04 to 2006/07, the inflation rate ranged from 3.96% to 7.96%. It then fluctuated between 4.15% and 12.63% until 2016/17. From 2017/18 to 2022/23, the inflation rate ranged from 3.6% to 10.03%. Changes in the inflation rate can have an impact on the stock market, including the NEPSE Index. Low and stable inflation can provide a favorable environment for economic growth and investment, potentially leading to higher stock prices. Conversely, high inflation can negatively affect the stock market, leading to lower stock prices. The inflation rate in Nepal has varied widely, from a low of 3.60% to a high of 12.63%. The mean inflation rate is 7.12%, indicating that, on average, prices have been increasing at a moderate pace. The standard deviation of 2.50 reflects considerable fluctuations in inflation, which can be attributed to various factors such as changes in global oil prices, domestic supply constraints, and monetary policy adjustments. Persistent high inflation can erode consumer purchasing power and savings, whereas low and stable inflation is generally favorable for economic stability and growth.

Unemployment rate which has remained relatively stable over the years. The unemployment rate in Nepal has hovered around 10.4% to 13.08% from 2015/16 to 2019/20, with slight fluctuations. In 2020/21, the rate decreased to 12.22%, followed by a further decline to 11.12% in 2021/22 and 10.92% in 2022/23. The unemployment rate in Nepal has remained relatively stable over the years. The data shows that Nepal's unemployment rate has ranged from 10.40% to 13.08% over the past 20 years. The mean unemployment rate is 10.87%, with a standard deviation of 0.64, indicating relatively high and stable levels of unemployment. High unemployment rates can lead to reduced consumer spending, increased government welfare costs, and social unrest. The relatively narrow range and low standard deviation suggest that

the labor market conditions have been consistently challenging, reflecting structural issues in the economy, such as inadequate job creation and mismatches between skills and job opportunities.

GDP growth rate has shown fluctuations over the years. From 2003/04 to 2015/16, the GDP growth rate in Nepal ranged from 0.43% to 8.98%. It then decreased to 7.62% in 2017/18 and further declined to 1.86% in 2022/23. In 2019/20, Nepal experienced a negative growth rate of -2.37%. The GDP growth rate in Nepal has shown fluctuations over the years. Higher GDP growth rates generally have a positive impact on the stock market, potentially leading to higher stock prices. Conversely, lower GDP growth rates or negative growth can have a negative effect on the stock market. However, it's crucial to consider other economic indicators and market dynamics when analyzing the stock market's performance in relation to GDP growth rate. In Nepal, the GDP growth rate has shown substantial variability, ranging from -2.37% to 8.98% over the 20-year period. The mean GDP growth rate is 4.30%, suggesting moderate economic growth on average. The standard deviation of 2.47 highlights significant fluctuations in economic performance, which can be attributed to various factors such as political instability, natural disasters, changes in global economic conditions, and domestic policy shifts. Positive GDP growth rates indicate economic expansion and improved living standards, while negative growth rates suggest economic contraction and potential increases in poverty and unemployment.

4.1.2 Correlation Analysis

Correlation analysis is employed to examine the relationship between the variables. Correlation analysis is used to measure the strength and direction of the association between the interest rate and the NEPSE Index (Stock Price). Additionally, correlation analysis can also be conducted to explore the relationships between the other independent variables, such as the inflation rates, unemployment rates and GDP growth rates, and the NEPSE Index. By calculating correlation coefficients, researchers can determine a positive, negative, or no correlation between the variables.

Table 4 shows the relationship between independent and dependent variables utilized in this study.

Table 4

Correlation Analysis

		NI	IR	INF	UR	GDP
NI	Pearson Correlation	1	.580**	-.242	.402	.038
	Sig. (2-tailed)		.007	.304	.079	.873
IR	Pearson Correlation		1	-.168	.099	.279
	Sig. (2-tailed)			.480	.678	.234
INF	Pearson Correlation			1	-.290	-.284
	Sig. (2-tailed)				.214	.226
UR	Pearson Correlation				1	-.490*
	Sig. (2-tailed)					.028
GDP	Pearson Correlation					1
	Sig. (2-tailed)					

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

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

Where,

NI= NEPSE Index (Stock Price)

IR= Interest Rate (Base Rate)

INF= Inflation Rate

UR= Unemployment Rate

GDP= GDP Growth Rate

In Table 4, it shows the relationship between the NEPSE index (NI) and other variables, namely the interest rates (IR), inflation rates (INF), unemployment rates (UR), and GDP growth rates (GDP). The correlation coefficient between interest rate and NEPSE index is 0.580, which indicates a positive relationship between the two variables. This suggests that there is a tendency for the NEPSE index to increase when the interest rate increases, and vice versa. However, it's important to note that the correlation coefficient of 0.580 is significant at the 5% level of significance, indicating a relatively moderate relationship between the two variables.

The correlation coefficient between inflation and NEPSE index is -0.242, which indicates a negative relationship between the two variables. This suggests that there is a tendency for the NEPSE Index to decrease when the inflation rate increases, and vice versa. However, the correlation coefficient of -0.242 is not significant at the 5%

level of significance, indicating a weak relationship between the two variables. The correlation coefficient between unemployment rate and NEPSE index is 0.402, which indicates a positive relationship between the two variables. This suggests that there is a tendency for the NEPSE Index to increase when the unemployment rate increases, and vice versa. The correlation coefficient of 0.402 is significant at the 5% level of significance, indicating a moderate relationship between the two variables.

The correlation coefficient between GDP growth rate and NEPSE index is 0.038, which indicates a very weak positive relationship between the two variables. This suggests that there is a slight tendency for the NEPSE Index to increase when the GDP growth rate increases, and vice versa. The correlation coefficient of 0.038 is not significant at the 5% level of significance, indicating a negligible relationship between the two variables. Based on the twenty-year observations, interest rate (IR) and unemployment rate (UR) shows a moderate positive relationship with the NEPSE Index (NI), inflation rate shows a weak negative relationship with the NEPSE index (NI), and a very weak positive relationship of the GDP growth rate (GDP) with NEPSE index (NI).

4.1.3 Regression Analysis

Regression analysis is utilized to examine the relationship between the variables and to predict the impact of changes in interest rates on the NEPSE Index (Stock Price). Multiple regression analysis is employed, with the NEPSE Index as the dependent variable and the interest rates, inflation rates, unemployment rates and GDP growth rates as the independent variables. By fitting a regression model, findings can estimate the coefficients of the independent variables and assess their individual contributions to explaining the variation in stock prices. Table 5, 6 & 7 shows the regression results of the study in terms of model summary, analysis of variance and regression coefficients.

Table 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.679[a]	.462	.318	.57006	1.397

a. Predictors: (Constant), GDP, IR, INF, UR

b. Dependent Variable: NI

Table 5 shows the results of a regression analysis with the NEPSE Index (NI) as the dependent variable and the GDP, interest rates (IR), inflation rates (INF), and unemployment rates (UR) as the predictors. The value of R is 0.679, indicating a moderately strong positive correlation between the predictors and the NEPSE Index. R-Square represents the proportion of the dependent variable's variance that can be explained by the predictors. In this finding, the R-Square value of 0.462 indicates that the predictors explain 46.2% of the variance is explained by NEPSE Index. The Adjusted R-Square value of 0.318 takes into account the number of predictors and adjusts the R-Square value accordingly. It provides a more accurate measure of the goodness of fit of the model, considering the complexity of the model and the potential for overfitting. In this case, the Adjusted R-Square value suggests that the predictors explain about 31.8% of the variance in the NEPSE Index.

The Durbin-Watson statistic, which is 1.397, is used to detect the presence of autocorrelation in the residuals of the regression model. It ranges from 0 to 4, with a value close to 2 indicating no autocorrelation. In this finding, the value of 1.397 suggests that there may be some positive autocorrelation present in the residuals. The model summary analysis suggests that the predictors (GDP, IR, INF, and UR) collectively have a moderately strong positive relationship with the NEPSE Index. However, it's important to note that correlation does not imply causation, and other factors

Table 6

Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.178	4	1.045	3.214	.043[b]
	Residual	4.875	15	.325		
	Total	9.053	19			

a. Dependent Variable: NI

b. Predictors: (Constant), GDP, IR, INF, UR

Table 6 shows the results of an analysis of variance (ANOVA) for the regression model with the NEPSE index (NI) as the dependent variable and the GDP, Interest rates (IR), inflation rates (INF), and unemployment rates (UR) as predictors. The F-

Statistic, which is 3.214, is calculated by dividing the regression mean square by the residual mean square. It tests the overall significance of the regression model by comparing the explained variation to the unexplained variation. In this finding, the F-Statistic is significant at the 5% level of significance (p-value = 0.043), indicating that the regression model as a whole is statistically significant. It helps assess the goodness of fit of the regression model and the contribution of the predictors (GDP, IR, INF, and UR) in explaining the variation in the NEPSE Index (NI).

Table 7

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.489	3.441		.142	.889		
	IR	.228	.091	.517	2.513	.024	.846	1.181
	INF	-.007	.064	-.024	-.104	.919	.675	1.482
	UR	.410	.284	.380	1.445	.169	.518	1.930
	GDP	.021	.076	.074	.272	.789	.491	2.038

a. Dependent Variable: NI

Table 7 shows the regression coefficients for the model with the NEPSE index (NI) as the dependent variable and the GDP, Interest rates(IR), inflation rates (INF), and unemployment rates (UR) as predictors. The coefficient for the interest rate (IR) is 0.228. This means that for every one-unit increase in the interest rate, the NEPSE index is expected to increase by 0.228 units, assuming all other predictors remain constant. In other words, a higher interest rate is associated with a higher NEPSE index. The t-statistic of 2.513 suggests that the coefficient for IR is statistically significant at the 5% level of significance (p-value = 0.024). This means that the correlation between the interest rates and the NEPSE index is unlikely to have occurred by chance. So, the first hypothesis of the study is rejected.

The coefficient for the inflation rate (INF) variable is -0.007. This means that for every one-unit increase in the inflation rate, the NEPSE index is expected to decrease by 0.007 units, assuming all other predictors remain constant. In other words, a higher

inflation rate is associated with a lower NEPSE Index. Furthermore, the t-statistic of -0.104 suggests that the coefficient for inflation is not statistically significant at the 5% level of significance (p-value = 0.919). This indicates that the relationship between the inflation rate and the NEPSE index may not be statistically meaningful. So, the second hypothesis of the study is accepted.

The coefficient for the unemployment rate (UR) variable is 0.410. This means that for every one-unit increase in the unemployment rate, the NEPSE index is expected to increase by 0.410 units, assuming all other predictors remain constant. In other words, a higher unemployment rate is associated with a higher NEPSE index. However, the t-statistic of 1.445 suggests that the coefficient for UR is not statistically significant at the 5% level of significance (p-value = 0.169). This means that the correlation between the unemployment rates and the NEPSE index may not be statistically meaningful. So, the third hypothesis of the study is accepted.

The coefficient for the GDP growth rate (GDP) variable is 0.021. This means that for every one-unit increase in the GDP growth rate, the NEPSE index is expected to increase by 0.021 units, assuming all other predictors remain constant. In other words, a higher GDP growth rate is associated with a higher NEPSE index. However, the t-statistic of 0.272 suggests that the coefficient for GDP is not statistically significant at the 5% level of significance (p-value = 0.789). This means that the relationship between the GDP growth rate and the NEPSE index may not be statistically meaningful. So, the last hypothesis of the study is accepted.

In this finding, the Tolerance values range from 0.491 to 0.846, and the VIF values range from 1.181 to 2.038. These values suggest that there is no severe multicollinearity among the predictors. The regression analysis indicates that the interest rate has a statistically significant positive effect on NEPSE Index, suggesting that higher interest rates are associated with higher NEPSE Index values. However, the inflation rates, unemployment rates and GDP growth rates as a dependent variables do not appear to have statistically significant effect on NEPSE index.

4.2. Discussions

The purpose of this research was to investigate the current trajectory of the NEPSE (Nepal Stock Exchange) index, as well as its link with important economic indicators in Nepal. These indicators include the interest rates, inflation rates, unemployment

rates and GDP growth. The research's purpose was to provide important insights into the elements that influence the NEPSE index and their effect on the overall performance of the stock market in Nepal. This was accomplished by demonstrating that the stated goals were met. A thorough examination of historical data obtained from reputable sources was carried out in order to evaluate the current trajectory of the NEPSE index and the economic indicators. While the NEPSE index serves as a barometer of the stock market's performance in Nepal, other important economic indicators that represent the state of the country's economy include the interest rate, inflation rate, unemployment rate, and growth in GDP. Through the examination of these variables' trends, it was possible to gain a more profound understanding of the stock market's dynamics and its connection to the larger economic landscape.

This study investigated the relationship between the NEPSE index, the interest rate, the inflation rate, the unemployment rate, and the growth of the GDP using statistical analysis techniques like regression. The analysis's goal was to determine the degree of relevance and strength of these interactions. The data indicated that there was a positive association between the NEPSE index and the interest rate, and that this relationship was statistically significant. This suggests that changes in the interest rate impact the stock market's performance, as higher interest rates correlate with higher NEPSE index values. On the other hand, the other factors, such as inflation, unemployment, and GDP growth, did not demonstrate any statistically significant connections with the NEPSE index. It means that there are others various micro and macro economics factors which effect the share market.

In addition to this, the research investigated the influence that the interest rates, inflation rates, unemployment rates and GDP growth had on the NEPSE index in Nepal. The findings determined that fluctuations in the interest rate significantly influenced the NEPSE index. This study's finding of a positive relationship between the NEPSE index and the interest rate is consistent with Conrad (2021), who demonstrated that a reduction in interest rates led to higher share prices due to increased risk-taking by investors. Conrad argued that low interest rates result in a shift toward shares as an alternative asset class, boosting stock prices. Similarly, Novandi and Falah (2023) found that low interest rates positively influence the Indonesia Composite Index (IHSG), as investors seek higher returns from the stock

market. This supports the study's conclusion that interest rate fluctuations significantly impact stock market performance.

It appears that fluctuations in interest rates have the potential to significantly impact the performance of the stock market in Nepal. However, the inflation rate, unemployment rate, and GDP growth did not significantly affect the NEPSE index. Mishra and Pokharel (2020) found that interest rates significantly affect stock prices in the short term but noted no long-term relationship. This partial alignment suggests that while the NEPSE index is sensitive to short-term interest rate changes, the long-term dynamics may be more complex and influenced by additional factors not captured in this study.

The findings of this research provide a comprehensive understanding of the current trajectory of the NEPSE index, as well as its connection to the interest rates, inflation rates, unemployment rates and GDP growth in Nepal. While the other factors did not indicate statistically significant links, the data showed that the interest rate played a major role in determining the NEPSE index. All of the other variables did not demonstrate any associations. When it comes to understanding the dynamics of the Nepalese stock market and how sensitive it is to fluctuations in interest rates, these results have consequences for investors, policymakers, and market analysts. It is recommended conducting more study and analysis to fully understand the elements influencing the NEPSE index and explore new variables that could impact the performance of the Nepalese stock market.

CHAPTER V

SUMMARY AND CONCLUSION

This is the last chapter for this research. This chapter is the overall study of the research paper with finding and recommendations. It is a brief overview of the entire study that emphasizes the major findings of the study.

5.1 Summary

The increase in financial capitalization has been growing for the last few decades globally. In this 21st century, stock market has been one of the most important indicator factors for the economic development of a country in long term. The major factor affecting stock market is both microeconomics and macroeconomics like, interest rate, monetary policy, inflation, GDP, unemployment rate, political stability and others micro economic factors etc. But in this study macroeconomics factors like interest rates, inflation rates, unemployment rates and GDP rates are taking in consideration for finding the relationship between independent variables with share price. The correlation between interest rate and stock market is one of the active interests for many investors and policymaker as their influence has been one of the significance factors for economic growth.

The research methodology employed a quantitative approach using descriptive and analytical research designs to investigate the impact of interest rates on the NEPSE Index. The study analyzed secondary data from various sources, including the Nepal Rastra Bank (NRB), NEPSE, and economic journals, covering the period from 2003/04 to 2022/23. Key macroeconomic variables such as interest rates, inflation rates, unemployment rates, and GDP growth rates were examined as predictors of stock prices. Data collection focused on the NRB average base rate and NEPSE closing prices, with statistical analyses including descriptive statistics, correlation analysis, and multiple regression analysis conducted using SPSS software.

The major findings revealed a moderately strong positive correlation (R = 0.679) with an R-Square of 0.462, indicating that 46.2% of the variance in the NEPSE Index is explained by these predictors. The model is statistically significant (F-Statistic = 3.214, p-value = 0.043). Among the predictors, the interest rate had a significant positive effect on the NEPSE Index (coefficient = 0.228, t-statistic = 2.513, p-value = 0.024), suggesting that higher interest rates are associated with higher NEPSE Index

values. In contrast, the inflation rate (coefficient = -0.007, t-statistic = -0.104, p-value = 0.919), unemployment rate (coefficient = 0.410, t-statistic = 1.445, p-value = 0.169), and GDP growth rate (coefficient = 0.021, t-statistic = 0.272, p-value = 0.789) were not statistically significant. The Durbin-Watson statistic of 1.397 suggests some positive autocorrelation. The predictors showed no severe multicollinearity, as indicated by Tolerance values (0.491 to 0.846) and VIF values (1.181 to 2.038).

Even though the stock market has been attractive to the investor, its significance is not up to the economic development. Stock market is the exchange of company's shares. In simple words, stock market is one the places were buying and selling shares of a company's takes place. In the context of Nepal, NEPSE has been regulating the stock market since 1993. As of the now, 249 companies are listed for stock market trading. However, the Nepal's stock market is still in early stage, interest has been growing significantly. It is one of the most attractive places for investment to the policymaker and investors in today's date. In this research paper, NEPSE's closing value of stock at the end of each year is taken into consideration.

As it is known that interest rate plays a significant role for the change in stock price, this research explains the correlation between interest rate and stock price by using various statistical tools and methods such as mean, standard deviation, correlation and regression analysis. In this study, it not only shows the interrelationship between interest rate and stock price but also with others various independent variables like inflation, unemployment and GDP etc. which directly and indirectly effects the stock price as a result it shows the economic situation of a country.

Hence, in this research, various others research has been taken into account in-order to provide a valid result. It demonstrates how many factors, which fluctuate from nation to nation based on the nature, scope, and features of economic situations, have varying degrees of influence. Generally, policymaker and investors should take interest rate into account so that they can take a right decision for their investment.

5.2 Conclusion

In conclusion, this study successfully achieved its objectives of assessing the existing trend of the NEPSE (Nepal Stock Exchange) index and examining its relationship with key economic indicators, including the interest rates, inflation rates, unemployment rates and GDP growth rates in Nepal. Additionally, the study analyzed

the impact of these variables on the NEPSE index. Through a thorough analysis of historical data, the study revealed valuable insights into the dynamics of the NEPSE index and its relationship with the economic indicators.

The findings indicated that the interest rate exhibited a statistically significant positive relationship with the NEPSE index. This suggests that changes in the interest rate have a notable impact on the performance of the stock market in Nepal, with higher interest rates associated with higher values of the NEPSE index. However, the other variables, including the inflation rates, unemployment rates and GDP growth rates did not demonstrate statistically significant relationships with the NEPSE index. This implies that these factors may have limited direct influence on the performance of the stock market in Nepal.

Furthermore, the study analyzed the impact of the interest rates, inflation rates, unemployment rates and GDP growth rates on the NEPSE index. The findings highlighted that changes in the interest rate had a significant effect on the NEPSE index, indicating that fluctuations in interest rates can significantly influence the stock market performance in Nepal. On the other hand, the impact of the inflation rates, unemployment rates and GDP growth on the NEPSE index was not statistically significant.

This study provides important information for investors, policymakers, and market analysts in understanding the dynamics of the Nepalese stock market. The findings suggest that the interest rate plays a crucial role in influencing the NEPSE index, while the other variables may have limited direct impact. However, it is important to note that further research and analysis are recommended to gain a more comprehensive understanding of the factors influencing the NEPSE index and to explore additional variables that may affect the stock market performance in Nepal.

5.3 Implications

Based on the findings, discussion and conclusion of the study, the following implications are made:

- The study highlights the significance of monitoring interest rate fluctuations as they have a statistically significant positive relationship with the NEPSE index.

- The lack of statistically significant relationships between the inflation rate, unemployment rate, and GDP growth with the NEPSE index suggests limited direct influence of these variables on the stock market in Nepal.
- Investors and policymakers should carefully analyze and anticipate the effects of interest rate changes on stock market performance, considering the notable impact identified in the study.
- Investors can utilize the relationship between the NEPSE index and the interest rate to develop effective risk management strategies.
- Policymakers can make informed decisions and formulate effective monetary policies by considering the impact of interest rates change on the stock market.
- Further research is recommended to explore additional variables and conduct in-depth analyses to gain a more comprehensive understanding of the factors influencing the NEPSE index.

References

Ali, H. (Feb, 2014). Impact of Interest Rate on Stock Market; Evidence from Pakistani Market. *IOSR Journal of Business and Management (IOSRJBM),* 64-69.

Amarasinghe, A. (April 2015). Dynamic Relationship between Interest Rate and Stock Price: Empirical Evidence from Colombo Stock Exchange. *International Journal of Business and Social Science*, 2219-6021.

Attaullah Shah, Jamil Ur Rehman, Yasir Kamal & Zaheer Abbas. (2012). The Interest Rates-Stock Prices Nexus in Highly Volatile Markets: Evidence from Pakistan. *Journal of Basic and Applied Scientific Research*, 2589-2598.

Chirchir, D. (2012). The relationship between share prices and interest rates: Evidence from Kenya. *School of Business, University of Nairobi, Nairobi, Kenya*.

Conrad, C. A. (2021). The Effects of Money Supply and Interest Rates on Stock Prices, Evidence from Two Behavioral Experiments. *Applied Economics and Finance Vol. 8, No. 2*, 33-40.

Dangol, J. (2008). Unanticipated Political Events and Stock Returns: An Event Study. *Economic Review*, 86-110.

Donald A. Otieno, Rose W. Ngugi & Nelson H. W. Wawire. (2017). Effects of Interest Rate on Stock Market Returns in Kenya. *International Journal of Economics and Finance; Vol. 9, No. 8*, 40-48.

Gurung, J. B. (2004). Growth and Performance of Securities Market in Nepal. *The Journal of Nepalese Business Studies,* 85-92.

Hari Prasad Pathak, PhD & Sweta Gupta. (2018). Rights Offering and Its Effect on Share Price Movement: A Study of Commercial Banks. *The Journal of Nepalese Business Studies*, 1-13.

Husni Ali Khrawish, Walid Zakaria Siam & Mohammad Jaradat. (July, 2010). The relationships between stock market capitalization rate and interest rate: Evidence from Jordan. *BEH - Business and Economic Horizons,* 60-66.

Ime T. Akpan & Queensley Chukwudum. (2014). Impact of Interest Rates on Stock Prices: An Analysis of the All Share Index. *International Journal of Finance and Accounting 3(2)*, 96-101.

Khalid, W. (2017). Effects of Interest Rate and Exchange Rate on the Stock Market Performance of Pakistan: A Cointegration Approach. *Journal of Finance and Economics Vol. 5, No. 5*, 219-232.

Lobo, B. J. (August 2000). The Asymmetric Effects of Interest Rate Changes on Stock Prices. *Eastern Finance Association*, 125-144.

Md. Mahmudul Alam & Md. Gazi Salah Uddin. (March 2009). Relationship between Interest Rate and Stock Price: Empirical Evidence from Developed and Developing Countries. *CCSE*, 44-51.

Neupane, S. (2018). *Impact of Interest Rate on Stock Market in Nepal.* Kathmandu: Faculty of Management Tribhuvan University.

Norhafiza Nordin, Sabariah Nordin and Rusmawati Ismail . (2014). The Impact of Commodity Prices, Interest Rate and Exchange Rate on Stock Market Performance: An Empirical Analysis from Malaysia. *Malaysian Management Journal Vol. 18*, 39-52.

Prakash Shrestha & Biggyan Raj Subedi. (2014). Determinants of Stock Market Performance in Nepal. *NRB Economic Review*, 1-40.

Prof. Dr. Radhe Shyam Pradhan & Subash Dahal. (2016). Factors Affecting the Share Price: Evidence from Nepalese Commercial Banks. *SSRN*, 1-16, https://ssrn.com/abstract=2793469.

Syed Tehseen JAWAID and Anwar Ul HAQ. (Volume XIX (2012), No. 8(573)). Effects of interest rate, exchange rate and their volatilities on stock prices: evidence from banking industry of Pakistan. *Theoretical and Applied Economics*, pp. 153-166.

U.R, R. (2012). Stock market development and economic growth: empirical evidence from Nepal. *Administration and Management Review*, 1–28.

Zohaib Khan, Sangeen Khan, Lala Rukh, Imdadullah & Wajeeh ur Rehman. (2012). Impact of interest rate, exchange rate and inflation on stock returns of KSE 100 INDEX. *International Journal of Economics & Research, v3 i5*, 142-155.

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Abstract This research explores the influence of important macroeconomic indicators on the Nepal Stock Exchange (NEPSE) index. These variables include the interest rate, inflation rate, unemployment rate, and inflation rate. The study makes use of a quantitative methodology, along with descriptive research methodologies, to conduct an analysis of secondary data covering the years 2003–04 to 2022–23. The data was obtained from the Nepal Rastra Bank (NRB), Nepal stock exchange (NEPSE), and economic publications. Statistical investigations, which include correlation and multiple regression, have shown that there is a positive correlation between the predictors and the NEPSE Index that is relatively high (R = 0.679). Furthermore, these factors explain 46.2% of the variation in the data. While inflation, unemployment, and GDP growth rates do not display statistically significant correlations with the NEPSE index, the interest rate does indicate a substantial positive influence on the index. The results highlight the significant influence that variations in interest rates have on Nepal's stock market performance. These findings provide investors, policymakers, and market analysts with vital information. Future studies could further understand the dynamics of the NEPSE index by investigating other factors to provide a more thorough understanding. Keywords: NEPSE index, interest rate, macroeconomic variables, stock market performance CHAPTER I INTRODUCTION 1.1 Background of the Study Nepal is a developing country which is striving to develop and modernize her economy. But the structure of the economy has still remained primarily agricultural with very small manufacturing base. With the change in surrounding, it is essential to divert and modify agro-based economy into capital-based economy. But it has been difficult to divert into liberalization policies as the formation and utilization of capital are shaped by various factors such as Interest rates, inflation, GDP of country, unemployment rate etc. These factors all affect the economy of a country, which leads to changes in stock price. Interest is a payment for the use of money so when savers deposit their savings in banks that time bank pays a certain amount of interest on saving amount because of use this money to lend other customers. So, the equal amount will receive and paid by each other as per the agreement. Interest rate is a charge claimed by lender/creditor and paid by borrower/debtor. It is also applied to the amount earned at a bank or credit union from a deposit account. In other word, interest rate is a medium of collecting return amount from lender and borrower. It is cost of holding the specific amount for a specific time, (Peter, 2008). Interest