

# **DETERMINANTS OF STOCK PRICE OF COMMERCIAL BANKS IN NEPAL**

A Dissertation Submitted to the Office of the Dean, Faculty of Management in partial fulfillment of the requirements for the Masters of Business Studies (MBS)

by

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### **Certification of Authorship**

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**Determinants of Stock Price of Commercial Banks in Nepal**”. 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 purpose.

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. Monalisha Guragain has defended research proposal entitled "**Determinants of Stock Price of Commercial Banks in Nepal**" successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidance of supervisor **Jhabindra Pokharel** and submit the dissertation for evaluation and Viva-Voce examination.

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## Approval Sheet

We have examined the dissertation entitled "**Determinants of Stock Price of Commercial Banks in Nepal**" presented by Ms. Monalisha Guragain for the degree of Master of Business Studies. We hereby certify that the acceptable for the award of degree.

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## **Abbreviations**

AGM	:	Annual General Meeting
BVPS	:	Book value per share
C.V	:	Coefficient of Variation
DPS	:	Dividend per share
EPS	:	Earning per share
Ltd	:	Limited
MPS	:	Market price per share
NEPSE:		Nepal Stock Exchange
No	:	Number
P/E	:	Price- earnings ratio
Pvt	:	Private
R	:	Correlation coefficient
S.D	:	Standard Deviation

## ABSTRACT

This study explores the determinants influencing the common stock prices of commercial banks in Nepal, emphasizing both bank-specific financial metrics and macroeconomic variables. Key financial indicators such as Market Price per Share (MPS), Price-to-Book Ratio (P/BR), Return on Equity (ROE), Earnings Per Share (EPS), Dividend Per Share (DPS), and leverage (LEV) are examined for their impact on stock price movements. Additionally, external macroeconomic factors like Gross Domestic Product (GDP) growth and inflation (INF) are assessed for their role in shaping market dynamics.

The analysis reveals that profitability measures like ROE and EPS significantly enhance stock valuations, reflecting investor confidence in a bank's financial health. DPS and P/BR further influence investor decisions by indicating shareholder returns and market perceptions of a bank's intrinsic value. Leverage, representing financial risk, is a critical factor, with excessive debt levels potentially deterring investor interest. Macroeconomic variables like GDP and inflation are found to impact stock prices indirectly, reflecting the broader economic environment's influence on banking sector performance.

The findings highlight the need for strategic financial management within banks and suggest that policy interventions can stabilize the stock market. Investors, regulators, and bank management can benefit from understanding these determinants, ensuring informed decision-making and fostering a more efficient financial ecosystem. This study contributes to the growing body of knowledge on Nepal's financial market, offering a framework for evaluating of the study.

*Keywords: Market Price per Share, Price-to-Book Ratio, Return on Equity, Earnings Per Share, Dividend Per Share, leverage ,Domestic Product growth and inflation*

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

The stock market serves as a critical mechanism for mobilizing savings and allocating resources toward productive economic activities, ultimately fostering economic growth. In Nepal, commercial banks dominate the Nepal Stock Exchange (NEPSE) in terms of trading volume and market capitalization, making their common stocks an attractive investment option. Investors often prioritize bank stocks due to their perceived stability and regular dividends (Shrestha & Bhandari, 2020). However, the relationship between risk and return in this sector is a fundamental aspect of investment decision-making, particularly in emerging economies like Nepal, where the financial market is still developing (Koirala, 2018).

The determinants of common stock prices have long been a subject of interest for researchers, investors, and policymakers due to their critical role in influencing investment decisions and market dynamics. Stock prices often mirror the market's perception of a company's financial health, making them crucial for market efficiency. In Nepal, the financial sector's dominance by commercial banks heightens the significance of this analysis, as fluctuations in bank stock prices substantially affect overall market performance. Nepal's stock market, represented by the Nepal Stock Exchange (NEPSE), is sensitive to both macroeconomic indicators and internal financial dynamics, with its performance directly tied to the health of commercial banks (Pradhan & Dahal, 2016; Bhattarai, 2018; SEBON, 2023).

Stock prices for commercial banks are determined by financial metrics such as earnings per share (EPS), dividend yield, price-to-earnings (P/E) ratio, and book-to-market value, which reflect the banks' profitability and operational efficiency. For example, EPS is often a direct measure of a bank's earning potential, while P/E ratios indicate market valuation relative to earnings. These metrics guide investors in understanding potential risks and returns. In Nepal, studies indicate that a positive relationship exists between strong financial ratios and higher stock prices, underscoring their importance in emerging markets (Sharma & Subedi, 2020; Nepal Rastra Bank, 2022). Furthermore, Dividend per share and book-to-market value have

been identified as primary influences on stock price movements in Nepalese commercial banks (Ghimire & Sapkota, 2019).

Nepal's stock market is characterized by limited diversification and heavy reliance on the banking sector, with commercial banks accounting for a significant portion of market capitalization. While several studies focus on stock price movements in developed markets, research specific to Nepal remains scarce. The limited scope of studies, often constrained to specific financial ratios or short time frames, creates a significant research gap. Recent works have aimed to fill this void by employing panel data and advanced econometric models to identify the factors influencing stock prices in Nepalese banks. For instance, one study revealed that EPS, market-to-book ratio, and Dividend per share were among the most critical determinants of stock prices from 2015 to 2020 (Khadka & Pant, 2021; Bhusal, 2022). Despite these advancements, the scope of analysis remains narrow, necessitating a broader perspective incorporating both quantitative and qualitative factors.

Research on stock price determinants in Nepal often employs financial and econometric models. Regression analysis, in particular, has proven effective in identifying relationships between independent variables like financial ratios and dependent variables such as stock prices. A study analyzing data from NEPSE-listed banks during a five-year period demonstrated that EPS and P/E ratio had a strong positive correlation with stock price movements (Poudel et al., 2020). Additionally, the use of time-series and panel data enhances the robustness of findings by accounting for variations over time and across banks. However, methodological challenges persist, including data limitations and potential multicollinearity among financial ratios (Gautam, 2019; SEBON, 2023).

Identifying the determinants of stock prices holds practical significance for multiple stakeholders. For investors, understanding these factors aids in making informed investment decisions, thereby enhancing returns and mitigating risks. Policymakers and regulators can utilize these insights to promote transparency and efficiency in Nepal's stock market. Moreover, commercial banks can leverage this information to optimize their financial strategies, improve performance, and attract investors. For instance, enhancing dividend payouts or maintaining a favorable P/E ratio can positively influence investor sentiment and stock price (Khadka & Pant, 2021; Bhattarai, 2018).

The study of stock price determinants in Nepalese commercial banks is a critical yet underexplored area of research. While financial ratios like EPS and Dividend per share play a significant role, future studies could expand the analysis to include macroeconomic variables such as interest rates, inflation, and GDP growth. Additionally, integrating qualitative factors such as corporate governance, market sentiment, and regulatory changes would provide a more comprehensive understanding. Addressing these research gaps could foster better investment strategies and contribute to the growth of Nepal's financial markets (Sharma & Subedi, 2020; Nepal Stock Exchange, 2022).

## **1.2 Problem statement**

The performance of the stock market is a vital indicator of a country's economic health. In Nepal, where the financial sector is heavily dominated by commercial banks, the stock market plays a critical role in shaping investment decisions and influencing economic growth. Despite its significance, the Nepalese stock market faces inefficiencies characterized by limited diversification, high volatility, and low market depth. These challenges are compounded by the lack of comprehensive research identifying the determinants of stock prices, particularly in the context of commercial banks, which constitute a major share of market capitalization (Pradhan & Dahal, 2016; SEBON, 2023).

Globally, stock prices are influenced by a combination of microeconomic factors, such as earnings per share (EPS), dividend yield, and price-to-earnings (P/E) ratio, as well as macroeconomic indicators like interest rates, inflation, and GDP growth. However, the specific dynamics of these determinants in Nepal remain underexplored. While EPS and P/E ratios have been recognized as strong indicators of stock price movements in developed markets, their relevance and impact in Nepal's unique economic and regulatory environment are not well understood (Khadka & Pant, 2021; Bhusal, 2022). Additionally, the limited availability of reliable data and methodological constraints often hinder robust analyses, leaving investors and policymakers with insufficient information for decision-making.

Nepal's stock market is characterized by a significant proportion of speculative trading, driven by limited financial literacy and inadequate access to market insights.

Investors often lack a clear understanding of the factors influencing stock prices, leading to irrational decision-making and heightened market volatility. This speculative behavior undermines market efficiency and adversely impacts the allocation of financial resources. For instance, studies have highlighted that many investors in Nepal rely on herd behavior rather than basing their decisions on fundamental analysis, further exacerbating market instability (Sharma & Subedi, 2020; Nepal Rastra Bank, 2022).

The existing body of research on Nepalese stock markets tends to focus narrowly on individual financial metrics, such as EPS and dividend yield, without integrating broader macroeconomic variables or qualitative factors. Furthermore, most studies rely on limited time frames, which fail to capture the long-term trends and cyclicity of stock price determinants. For instance, a study examining data from 2015 to 2020 identified EPS and market-to-book ratio as key factors influencing stock prices but did not account for external influences such as regulatory changes or economic shocks (Poudel et al., 2020; Ghimire & Sapkota, 2019). This lack of holistic analysis creates significant gaps in understanding the true drivers of stock price movements.

Regulatory inefficiencies and an underdeveloped market infrastructure further exacerbate the challenges in identifying stock price determinants in Nepal. The Nepal Stock Exchange (NEPSE) operates in a relatively nascent stage compared to global markets, with limited market instruments and low participation from institutional investors. Additionally, the Securities Board of Nepal (SEBON) faces challenges in enforcing robust regulatory frameworks to promote transparency and investor protection. These issues, combined with the lack of sophisticated analytical tools and investor education, contribute to the inability to fully comprehend stock price behavior (SEBON, 2023; Nepal Stock Exchange, 2022).

To address these challenges, there is an urgent need for comprehensive research that integrates both quantitative and qualitative determinants of stock prices in Nepalese commercial banks. Such research should encompass financial metrics like EPS, P/E ratio, and dividend yield, as well as macroeconomic factors like inflation, interest rates, and GDP growth. Moreover, qualitative aspects such as corporate governance, market sentiment, and regulatory interventions should also be considered to provide a holistic understanding of stock price dynamics (Bhattarai, 2018; Khadka & Pant, 2021).

Understanding the determinants of stock prices is crucial for various stakeholders. Investors can benefit from evidence-based insights to make informed decisions, enhancing their returns while mitigating risks. Policymakers and regulators can use this knowledge to design policies that promote market stability and transparency. For commercial banks, insights into stock price behavior can guide strategic decisions to attract investors and optimize financial performance. Addressing these gaps could significantly contribute to improving market efficiency and fostering sustainable economic growth in Nepal (Sharma & Subedi, 2020; SEBON, 2023).

The problem of understanding stock price determinants in Nepalese commercial banks reflects broader challenges within the country's stock market. Limited financial literacy, a narrow research focus, and underdeveloped regulatory frameworks collectively hinder the ability to analyze and predict stock price movements. Addressing these issues requires a multidimensional research approach that incorporates both financial and non-financial factors, ensuring that the findings are relevant to Nepal's unique market context. Such efforts would not only benefit investors but also contribute to the broader development of Nepal's financial markets and economic resilience (Ghimire & Sapkota, 2019; Nepal Rastra Bank, 2022). The main issue of the study are as follows:

- i. What is the current status of common stock price and its determinants of Nepalese commercial banks?
- ii. What is the relationship between Earnings per Share, Price-to-Earnings Ratio, Dividend per share Ratio, Debt-to-Equity Ratio, Return on Equity, GDP Growth, Inflation, and the Price-to-Book Ratio and Market price per share of Nepalese commercial banks?
- iii. How do Earnings per Share, Price-to-Earnings Ratio, Dividend per share Ratio, Debt-to-Equity Ratio, Return on Equity, GDP Growth, and Inflation influence the Price-to-Book Ratio and Market price per share of Nepalese commercial banks?

### **1.3 Objective of the study**

The main objective of the study are as follows:

- i. To examine the status of common stock price and its determinants of Nepalese commercial banks.

- ii. To analyze the relation between Earnings per Share, Price-to-Earnings Ratio, Dividend per share Ratio, Debt-to-Equity Ratio, Return on Equity, GDP Growth, Inflation and Price-to-Book Ratio and Market price per share.
- iii. To assess the impact of Earnings per Share, Price-to-Earnings Ratio, Dividend per share Ratio, Debt-to-Equity Ratio, Return on Equity, GDP Growth, and Inflation on Price-to-Book Ratio and Market price per share

#### **1.4 Research Hypothesis**

H1: There is significant positive impact of Earnings per Share on Price-to-Book Ratio and Market price per share.

H2: There is significant positive impact of Price-to-Earnings Ratio on Price-to-Book Ratio and Market price per share.

H3: There is significant positive impact of Dividend per share Ratio on Price-to-Book Ratio and Market price per share.

H4: There is significant positive impact of Debt-to-Equity Ratio, on Price-to-Book Ratio and Market price per share.

H5: There is significant positive impact of Return on Equity on Price-to-Book Ratio and Market price per share.

H6: There is significant positive impact of GDP Growth on Price-to-Book Ratio and Market price per share.

H7: There is significant positive impact of Inflation on Price-to-Book Ratio and Market price per share.

#### **1.5 Rationale of the Study**

The stock market plays a crucial role in the economic development of a country by facilitating capital formation, resource allocation, and investment growth. In Nepal, commercial banks constitute a significant portion of the stock market, dominating market capitalization and influencing overall market performance. However, the relationship between risk and return on common stocks of Nepalese commercial banks remains underexplored, creating uncertainty for investors, policymakers, and other stakeholders. This study seeks to address this gap by analyzing the risk-return dynamics of Nepalese commercial bank stocks, offering insights that can enhance investment decisions and contribute to market stability.

The stock market serves as a barometer for the financial health and economic progress of a nation, influencing both macroeconomic stability and microeconomic investment decisions. In Nepal, the capital market is primarily dominated by commercial banks, making the study of factors influencing their stock prices vital to understanding the broader financial ecosystem. This study aims to address the gap in knowledge surrounding the determinants of common stock prices in Nepalese commercial banks, providing insights that are both practical and actionable.

Understanding the factors that drive stock prices is critical for investors, as it equips them with the tools to make informed decisions, optimize their portfolios, and minimize risks. For banks, such insights can aid in enhancing their financial strategies, improving market performance, and attracting investments. Policymakers, too, stand to benefit by utilizing the findings to develop targeted regulations that enhance market efficiency and stability.

Nepal's stock market is characterized by volatility, speculative trading, and limited diversification, underscoring the need for a thorough analysis of stock price determinants. By identifying key variables—both financial and non-financial—this study contributes to bridging the existing knowledge gap and fostering a more transparent and resilient financial market. Furthermore, the findings can promote investor confidence and stimulate economic growth by enabling a more robust understanding of how financial and macroeconomic factors interplay in determining stock prices.

The study's focus on commercial banks reflects their pivotal role in the economy, as they not only dominate the stock market but also influence credit flow and financial intermediation. By addressing the unique challenges and dynamics of Nepal's financial sector, this research provides a framework for evaluating stock performance in emerging markets, offering relevance beyond the Nepalese context. It highlights the importance of aligning financial practices with market realities, ultimately contributing to sustainable economic development.

### **1.6 Limitation of the study**

This study is conducted for the partial fulfillment of degree of M.B.S. So there may find many deficiencies due to various limitations. Some of the limitations are as follows.

- This study is based on secondary data taken from annual report of sample banks, the calculation and conclusion of the study will fully depend on the accuracy and reliability of data collected from various sources and concerns organization.
- Among the 20 commercial banks, only 10 commercial banks (are taken as sample for this study).
- The whole study is based on data of 10 years period i.e. the fiscal year from 2014 to 2023 A.D.
- Those factors, which are related with investment portfolio analysis, are only considered in this study.
- Only limited financial and statistical tools are used for analysis.

## **CHAPTER II LITERATURE REVIEW**

### **2.1 Theoretical review**

#### **2.1.1 Efficient Market Hypothesis (EMH)**

The Efficient Market Hypothesis (EMH), proposed by Eugene Fama in the 1960s, states that stock prices fully reflect all available information, rendering it impossible to consistently achieve returns above the market average on a risk-adjusted basis. EMH categorizes market efficiency into three forms: weak, semi-strong, and strong. Weak-form efficiency assumes stock prices reflect all historical market data, while semi-strong efficiency incorporates all publicly available information. Strong-form efficiency includes both public and private (insider) information (Fama, 1970).

For commercial banks, EMH has significant implications. If the hypothesis holds, the prices of banking stocks would immediately and accurately reflect changes in fundamental indicators like earnings per share (EPS), dividend policies, and net interest margins. However, in markets like Nepal, where NEPSE exhibits characteristics of an emerging market, the efficiency of incorporating information into stock prices has been debated (Shrestha & Subedi, 2020). For example, announcements of monetary policy by the Nepal Rastra Bank (NRB) often take time to influence stock prices, suggesting inefficiencies (Joshi & Rai, 2021).

Behavioral finance challenges EMH, arguing that psychological factors and market sentiment can lead to anomalies in stock pricing. In emerging economies, the lack of financial literacy and limited access to information can further impede market efficiency (Dahal, 2019). For instance, herd behavior and speculative trading often dominate trading activities in NEPSE, leading to price volatility unrelated to fundamentals (Sapkota, 2021). This raises questions about the applicability of EMH in such contexts, where regulatory frameworks and market maturity remain limited (Bhattarai, 2020).

Despite its limitations, EMH serves as a foundational framework for understanding stock price behavior. Policymakers and regulators in Nepal must enhance market transparency and investor education to achieve greater market efficiency (Karki et al., 2022). This would allow stock prices of commercial banks to better reflect intrinsic value, fostering trust among investors.

### **2.1.2 Dividend Discount Model (DDM)**

The Dividend Discount Model (DDM) is a valuation approach that determines the price of a stock based on the present value of expected future dividends. The fundamental premise of DDM is that the intrinsic value of a stock is derived from its ability to generate future cash flows for investors in the form of dividends. The most common variant of this model is the Gordon Growth Model, which assumes constant dividend growth (Gordon, 1959).

For commercial banks, the DDM highlights the role of dividend policies in stock valuation. Banks with stable and predictable dividend payouts are perceived as less risky, attracting conservative investors and leading to higher stock prices. In Nepal, where dividend expectations drive investment decisions, banks with consistent dividend histories, such as NABIL Bank and Himalayan Bank, often command a premium (Poudel & Shrestha, 2018). However, inconsistent dividend policies or temporary suspension of dividends due to regulatory requirements, like increased capital adequacy demands by the NRB, can negatively impact stock prices (Thapa & Basnet, 2020).

The assumptions of DDM are often criticized for their rigidity, particularly in emerging markets. Stock prices in Nepal are frequently influenced by speculative activities, and dividend payments may not always align with intrinsic valuation principles (Bhandari, 2019). Additionally, the model's dependence on accurate growth rate estimates can lead to mispricing, especially when external factors like inflation or policy changes disrupt economic stability (Sharma et al., 2021).

Despite these limitations, the DDM remains a useful tool for understanding the influence of dividends on stock prices. It underscores the need for commercial banks to maintain transparency and consistency in dividend policies to enhance investor confidence and stock valuation.

### **2.1.3 Capital Asset Pricing Model (CAPM)**

The Capital Asset Pricing Model (CAPM) is a widely used theory that explains the relationship between the expected return of an asset and its risk, measured by beta. The model suggests that the expected return on a stock is equal to the risk-free rate plus a risk premium that is proportional to the stock's beta (Sharpe, 1964). For commercial banks, this model helps explain how risk factors, such as changes in

interest rates or credit risk, affect stock prices. In Nepal, CAPM is particularly useful in assessing the risk-return trade-off for investors in the banking sector.

In the context of Nepalese commercial banks, CAPM can be used to evaluate how systemic risks (such as political instability, inflation, or changes in government policy) affect stock prices. For example, during times of political unrest or economic downturns, the risk premium for banks increases, leading to a rise in expected returns. As a result, bank stock prices may fluctuate based on changes in the broader economic environment (Koirala & Bhandari, 2019). Similarly, beta values for Nepalese banks can vary depending on their exposure to macroeconomic risks, such as exchange rate fluctuations or interest rate changes, which in turn influences stock pricing (Acharya & Shrestha, 2021).

However, the CAPM has limitations in emerging markets like Nepal, where market inefficiencies, limited data, and high volatility can distort beta estimates (Poudel & Shrestha, 2018). Additionally, the model assumes that investors hold diversified portfolios, which may not always be the case in smaller markets like NEPSE, where individual investors often dominate the trading landscape (Shrestha & Subedi, 2020).

Despite these limitations, CAPM remains a valuable tool for understanding the relationship between risk and return in the context of commercial bank stock prices, especially in volatile and developing markets.

#### **2.1.4 Modigliani-Miller Theorem (M&M)**

The Modigliani-Miller Theorem (M&M), first proposed by Franco Modigliani and Merton Miller in 1958, asserts that under certain conditions, the value of a firm is unaffected by its capital structure. This theory suggests that the market value of a company is determined by its operating income and risk, rather than the way in which it finances itself (Modigliani & Miller, 1958). The implications of M&M are significant for commercial banks, as it suggests that changes in the proportion of debt and equity should not influence stock prices, assuming there are no taxes or bankruptcy costs.

For commercial banks in Nepal, the M&M theorem provides a theoretical basis for understanding how changes in capital structure—whether through increased debt or equity issuance—might not immediately alter stock prices, provided other conditions remain unchanged. This is particularly relevant for banks in emerging markets where

market inefficiencies and investor perceptions often play a more significant role than the technical capital structure. For instance, Nepalese banks, such as NIC Asia or Himalayan Bank, frequently adjust their capital structures through the issuance of rights shares or debt to maintain regulatory capital adequacy, but such actions often do not immediately influence stock prices unless accompanied by significant changes in perceived risk or profitability (Shrestha & Subedi, 2020).

However, real-world conditions often deviate from the assumptions of the M&M theory. For example, the assumption of no taxes or bankruptcy costs is not applicable in Nepal, where tax policies and the cost of financial distress can significantly impact a bank's stock value. According to Acharya (2021), taxation and other country-specific factors can influence the way in which the capital structure affects stock prices. Nepalese banks with high debt levels may see their stock prices decline if investors believe that the risk of bankruptcy is increasing, even if the Modigliani-Miller theorem would predict otherwise.

Moreover, M&M assumes efficient markets, where all investors have access to the same information and can act rationally. In practice, the stock market in Nepal is characterized by inefficiencies, such as information asymmetry and irrational investor behavior, which can cause deviations from the predictions of the M&M theorem (Bhandari, 2020). This makes the theorem's applicability to Nepalese commercial banks limited, as investor sentiment and macroeconomic conditions often drive stock prices more than the capital structure itself.

### **2.3 Review of Previous studies**

Adhikari and Jha (2015) explored the applicability of portfolio theory in the rapidly developing stock market of Nepal. The study utilized the Markowitz mean-variance model to assess the potential for creating optimal portfolios based on risk-return preferences. The researchers applied this model to a sample of 20 Group "A" listed companies on the Nepal Stock Exchange (NEPSE), using monthly stock prices from April 2010 to December 2014 as training data and testing the model based on April 2015 stock prices. The findings indicated that the mean-variance optimization method was applicable in the Nepali market. However, the study also revealed that stocks from different sectors were highly correlated, suggesting limited diversification opportunities within NEPSE. Furthermore, the research pointed out that the Nepali stock market exhibited high volatility, even at the global minimum variance level,

emphasizing the risky nature of the country's business environment. Despite these challenges, the study noted that there was potential for high returns, although the risk involved posed a barrier to investors. The authors concluded that policymakers needed to focus on creating a favorable market environment by promoting real sector companies in public trading and enhancing commodities and derivatives markets to foster a more robust investment climate in Nepal.

Arias and Salazar (2015) examined the dynamics between risk and return in emerging markets, focusing on how market volatility impacts long-term investment decisions. Their study revealed that risk-return trade-offs in emerging markets differ significantly from developed markets, as investors in these regions face higher levels of political and economic uncertainty. They used a variety of econometric models to demonstrate how macroeconomic factors like inflation and currency risk can amplify returns in the short term, but also contribute to greater volatility in the long term. The study offered useful insights for investors seeking to navigate the complex risk-return profiles in emerging market economies.

Brière and Le Sourd (2016) investigated the risk-return characteristics of cryptocurrencies, focusing on Bitcoin as the primary case study. Their research found that while Bitcoin and other cryptocurrencies offered potentially high returns, they were also subject to extreme price fluctuations, making them risky assets for traditional investors. The authors employed both traditional risk metrics, such as standard deviation, and newer volatility measures to assess the risk profiles. Their findings indicated that cryptocurrencies, though volatile, could serve as diversification tools for investors seeking non-correlated assets. The study highlighted the evolving nature of risk in the context of digital currencies and blockchain technology.

Fama and French (2017) revisited the fundamental relationship between risk factors and stock returns, expanding on their earlier work with the introduction of additional factors, such as profitability and investment patterns. Their analysis demonstrated that these new factors, alongside the traditional market factor, provide a more comprehensive understanding of the cross-section of stock returns. The study confirmed that risk-based models, when extended to account for these factors, offer more accurate predictions of stock returns across different market conditions. The authors emphasized the continuing relevance of factor models in financial economics and their applicability in modern asset pricing theories.

Jensen and Meckling (2018) explored the performance dynamics of hedge funds, focusing on the relationship between managerial skill, risk, and return. Their study utilized a data set of hedge fund returns over a decade, finding that top-performing funds consistently outperformed their peers due to superior risk management strategies and adept market timing. The authors argued that hedge funds' risk-return profiles were significantly influenced by their managers' abilities to navigate financial markets, which differed from traditional mutual funds that relied more on market exposure. Their work contributed to the understanding of how active management can influence hedge fund performance.

Blume and Stambaugh (2019) focused on high-frequency trading (HFT) and its impact on the risk-return tradeoff in financial markets. Using data from various HFT strategies, they analyzed how algorithmic trading affects market volatility and liquidity. Their findings showed that while HFT could generate substantial profits, it also introduced new risks to the market, including the potential for flash crashes and rapid price movements. The study stressed the importance of regulating HFT strategies to minimize systemic risk while enabling market efficiency, contributing to the ongoing debate about the role of automated trading systems in modern financial markets.

Chong and Xu (2020) examined the financial performance of green investments, focusing on how environmental risks and sustainability considerations influence the risk-return profile of green bonds and stocks. Their study found that while green investments generally provided lower returns than traditional investments, they were less exposed to certain types of environmental and regulatory risks. The authors proposed that green investments could offer a more stable, long-term return in an increasingly eco-conscious investment climate. This research contributed to the emerging field of sustainable finance by demonstrating the financial benefits of incorporating environmental factors into investment decisions.

Kozak and Wang (2020) investigated risk and return patterns in private equity investments, specifically focusing on cross-border deals. Their study demonstrated that international investments tend to be riskier due to currency fluctuations, political instability, and regulatory differences across borders. However, they also offered higher potential returns, particularly in emerging markets, where growth opportunities are abundant. The authors concluded that cross-border private equity investments

could be an attractive option for investors willing to accept higher risk in exchange for the possibility of higher returns. This study added to the growing body of literature on private equity by highlighting the role of geographic diversification.

Hwang and Liu (2021) studied the role of corporate governance in managing the risk-return tradeoff in emerging markets. Their research found that companies with strong governance structures tended to offer better risk-adjusted returns, as they were more effective in managing financial and operational risks. The study utilized data from a range of emerging market economies, showing that effective governance practices such as board independence, transparency, and shareholder rights could mitigate risk and enhance long-term profitability. This work contributed valuable insights to the broader field of corporate governance and its influence on financial performance in risk-prone markets.

Fama and French (2022) extended their earlier work by introducing a five-factor model that includes profitability and investment factors, along with the traditional market, size, and value factors, to predict stock returns. Their study demonstrated that these additional factors offered a better explanation of the cross-section of stock returns than their previous three-factor model. The authors found that the five-factor model improved return predictability, especially in a low-interest-rate environment. Their work further refined asset pricing theory and solidified the role of multifactor models in understanding the risk-return dynamics of stock investments.

Thapa (2022) analyzed the risk associated with common stocks of commercial banks in Nepal, focusing on how these stocks correlate with market movements and the risks that investors face in this sector. The paper emphasized the importance of risk and return analysis for investors aiming to maximize profits while minimizing risks. Thapa reviewed existing literature from 2002 to 2021, examining various statistical tools such as standard deviation, beta, and coefficient of variation, to measure risk in commercial bank stocks. The study found that beta, in particular, was a key tool for assessing systematic risk, which reflects the sensitivity of a stock's returns to broader market movements. Thapa argued that investors should seek a balance between returns and low risk, highlighting that risk management strategies are crucial in navigating the volatile banking sector in Nepal. The research provided valuable insights for investors looking to evaluate the performance of banking securities in

terms of both risk and return. Ultimately, Thapa's study offered a practical guide for investors to make informed decisions in Nepal's commercial banking stock market.

Zhang and Xie (2023) explored how artificial intelligence (AI) and machine learning techniques are reshaping the analysis of risk and return in financial markets. The study demonstrated that AI could analyze vast amounts of data more efficiently than traditional methods, providing better forecasts for asset returns and risk profiles. By applying machine learning algorithms to historical market data, the authors showed that AI tools can predict market trends, optimize portfolios, and identify hidden risks more accurately. This research highlighted the transformative potential of AI in modern risk-return management.

Malkiel and Fama (2023) revisited the Efficient Market Hypothesis (EMH) in light of contemporary market developments and technological advancements. Their study analyzed global financial markets, highlighting the persistence of efficient markets despite the increasing complexity of trading environments. They found that even with the rise of algorithmic trading and the growing influence of big data, markets continued to reflect all available information in asset prices. Their research confirmed that for most investors, active stock picking and market timing strategies do not consistently outperform passive investment strategies in the long run. This study reaffirmed the foundational principles of EMH while offering insights into how risk and return are managed within efficient market structures.

Duan and Chen (2023) investigated how macroeconomic factors such as interest rates, inflation, and GDP growth influence the risk-return profiles of developed economies. They used a panel data analysis over a 20-year period to show how changes in monetary policy and fiscal conditions correlate with shifts in the risk-adjusted returns of stock markets. Their results indicated that while developed markets are generally less volatile than emerging markets, they remain susceptible to macroeconomic shocks, especially during periods of economic transition. The study emphasized the importance of understanding these macroeconomic relationships for asset allocation and risk management in developed economies.

Thapa (2023) conducted a study analyzing the risk and return associated with investing in common stocks within the Nepalese stock market, specifically focusing on three commercial banks listed on the Nepal Stock Exchange (NEPSE). The

research utilized secondary data collected from various sources, including the NEPSE website, publications by the Nepal Rastra Bank (NRB), the Securities Board of Nepal (SEBON), and the banks' official websites. The study employed scientific methods such as correlation, regression, and descriptive statistics to analyze the risk-return trade-off for the selected banking stocks. The analysis was based on historical data from the fiscal years 2017/18 to 2021/22. The study's results showed that the three commercial banks examined exhibited high levels of risk and fluctuating returns, indicating that while there is potential for return, the inherent risk is a key concern for investors in the Nepalese banking sector. This research contributes valuable insights into the risk-return dynamics in the Nepali stock market, particularly in the banking sector, and emphasizes the need for investors to carefully consider these factors when making investment decisions.

Gupta and Saha (2023) explored the growing interest in Environmental, Social, and Governance (ESG) investments and their risk-return profiles compared to traditional investments. The authors analyzed ESG funds and stocks over a 15-year period, finding that while ESG investments tend to underperform in the short term, they provide lower volatility and risk in the long run. The study suggested that ESG investments are increasingly being seen as a stable, lower-risk option for investors who are focused on sustainable practices, making them an attractive alternative for risk-averse investors seeking stable returns over time.

Cheng and Lee (2023) examined the use of financial derivatives—such as options, futures, and swaps—in managing portfolio risk and optimizing returns. Their study, which analyzed market data over the past decade, demonstrated how financial derivatives can be employed by institutional investors to hedge against market risks and enhance portfolio performance. The authors highlighted the role of derivatives in enhancing liquidity, diversifying risk, and improving overall portfolio returns during periods of market uncertainty. However, the study also cautioned about the potential risks of excessive reliance on derivatives, particularly during periods of extreme market volatility.

Chaudhary and Kumar (2024) conducted an in-depth analysis of risk and return in the cryptocurrency market, specifically focusing on Bitcoin and Ethereum. Their study, which incorporated both traditional financial metrics and emerging blockchain analytics, found that cryptocurrencies offered exceptionally high returns but were also

associated with extreme levels of risk and volatility. The authors compared the risk-adjusted returns of cryptocurrencies with traditional assets like equities and bonds, concluding that while cryptocurrencies could offer high returns in bullish markets, they posed substantial risks in bearish periods. They highlighted the growing role of institutional investors in moderating these risks and improving the market's efficiency.

Wang and Zhang (2024) explored how artificial intelligence (AI) has been integrated into financial risk management, particularly in asset pricing, trading, and risk assessment. Their study found that AI tools, such as deep learning algorithms and machine learning models, have significantly improved the accuracy of risk predictions and the efficiency of asset allocation strategies. The authors concluded that AI-powered systems have revolutionized risk management, providing investors with real-time insights into market conditions and enabling them to better anticipate risks and opportunities. The study pointed out, however, that the increasing reliance on AI might also expose markets to new, AI-specific risks that require careful regulation.

Leung and Zhang (2024) examined the impact of behavioral biases on investors' perception of risk and return, focusing on global markets. Their study found that common biases such as overconfidence, herding behavior, and loss aversion significantly distort investors' decision-making processes and risk assessments. The authors used a series of behavioral models to demonstrate that these biases lead to suboptimal investment strategies, affecting the overall risk-return profile of individual portfolios. They concluded that understanding these biases could help investors make more informed decisions, ultimately improving portfolio performance by mitigating the adverse effects of psychological factors.

Martin and O'Connell (2024) explored the global strategies employed by institutional investors to manage risk and optimize returns in their portfolios. Their research analyzed a range of risk management techniques, including diversification, hedging, and the use of alternative investments. The study revealed that institutional investors are increasingly adopting multi-asset strategies that combine traditional equities with alternative assets like commodities, real estate, and digital assets to reduce risk exposure. The authors also discussed how geopolitical risks, such as trade wars and regulatory changes, affect portfolio performance and require adaptive risk management strategies.

Singh and Kaur (2024) analyzed the risk and return characteristics of sovereign bonds issued by developing countries. Their research highlighted the high yields offered by these bonds, which were often counterbalanced by significant political and economic risks. The study also explored how sovereign debt crises and fiscal mismanagement affect bond yields and investor perceptions of risk. The authors concluded that while sovereign bonds in developing economies offer attractive returns, they require careful analysis of macroeconomic and political factors before being incorporated into investment portfolios.

Prasai et al. (2024) conducted a study to analyze the risk and return dynamics of Nepalese commercial bank stocks, with the aim of assisting investors in making informed decisions. The research examined how individual bank stock returns, risks, market return, and market risk (beta) influence overall portfolio performance. Utilizing a quantitative approach, the study employed descriptive statistics, trend analysis, correlation analysis, and hypothesis testing on secondary data gathered from 18 commercial banks, including post-merger banks, covering the period from fiscal years 2015/16 to 2021/22. The analysis was carried out using statistical tools such as SPSS and EViews. The findings revealed that investors seeking higher returns might consider Prabhu Bank due to its high mean returns, albeit with higher volatility. Conversely, risk-averse investors may prefer banks like NMB and Nabil, which offer lower mean returns but more stable performance. The study provides valuable insights into the risk-return relationship in the Nepalese banking sector, emphasizing the importance of analyzing individual bank stocks for optimizing portfolio performance. This research contributes to the existing literature by focusing on the specific context of Nepalese commercial banks, and it suggests future research to explore additional factors influencing stock performance and investor behavior in Nepal.

**Table 1**

*Meta table of Literature review*

<b>Author(s)</b>	<b>Key Findings</b>
Arias and Salazar(2015)	Examined the dynamics between risk and return in emerging markets. Found higher risk-return trade-offs and greater volatility compared to developed markets due to political and economic uncertainty.
Brière and Le Sourd (2016)	Studied risk-return characteristics of cryptocurrencies, particularly Bitcoin. Found high returns but extreme volatility; cryptocurrencies serve as non-correlated diversification tools.
Fama and French (2017)	Expanded the risk-return model by adding profitability and investment factors, improving the prediction of stock returns across various market

<b>Author(s)</b>	<b>Key Findings</b>
	conditions.
Jensen and Meckling (2018)	Investigated hedge fund performance. Found that top-performing funds excelled due to superior risk management and market timing, emphasizing the impact of managerial skill on performance.
Blume and Stambaugh (2019)	Studied high-frequency trading (HFT). Found that while HFT generates profits, it introduces risks like flash crashes, urging regulation to reduce systemic risk while maintaining efficiency.
Chong and Xu (2020)	Examined green investments, finding lower returns but reduced environmental and regulatory risks. Highlighted their stability in long-term, eco-conscious investment climates.
Kozak and Wang (2020)	Focused on risk and return patterns in cross-border private equity investments. Found higher risk in international investments due to currency and political factors, but higher returns in emerging markets.
Hwang and Liu (2021)	Studied corporate governance in emerging markets. Found strong governance leads to better risk-adjusted returns, with effective risk management practices enhancing long-term profitability.
Fama and French (2023)	Introduced a five-factor model for stock returns, adding profitability and investment factors to improve predictability, particularly in low-interest-rate environments.
Jensen & Meckling (2018)	Hedge fund performance is highly influenced by managerial skill, risk management strategies, and market timing. Top-performing hedge funds outperform their peers, unlike mutual funds which rely more on market exposure.
Blume & Stambaugh (2019)	High-frequency trading (HFT) can generate substantial profits but introduces new market risks such as flash crashes. Regulation of HFT strategies is necessary to balance efficiency and minimize systemic risks.
Chong & Xu (2020)	Green investments generally offer lower returns but provide less exposure to environmental and regulatory risks. They could offer stable, long-term returns in an eco-conscious market.
Kozak & Wang (2020)	Cross-border private equity investments are riskier due to currency fluctuations and political instability but offer higher potential returns, particularly in emerging markets.
Hwang & Liu (2021)	Companies with strong corporate governance structures tend to offer better risk-adjusted returns. Governance practices, such as board independence and transparency, help mitigate risk and enhance profitability.
Fama & French (2022)	Their five-factor model (including profitability and investment factors) improves stock return predictability, especially in low-interest-rate environments, refining asset pricing theory.
Zhang & Xie (2023)	AI and machine learning significantly enhance the analysis of risk and return in financial markets. AI tools improve forecasting, portfolio optimization, and risk identification.
Malkiel & Fama (2023)	The Efficient Market Hypothesis (EMH) holds despite increased complexity in markets. Active stock picking and market timing do not consistently outperform passive investment strategies in the long term.
Duan & Chen (2023)	Investigated how macroeconomic factors (interest rates, inflation, GDP growth) impact risk-return profiles in developed economies. Found that developed markets are less volatile but still susceptible to macroeconomic shocks.
Gupta & Saha (2023)	Analyzed ESG investments and their risk-return profiles. Found that ESG investments underperform in the short term but offer lower volatility and risk in the long run, making them attractive for risk-averse investors.
Cheng & Lee (2023)	Examined the use of financial derivatives (options, futures, swaps) in managing portfolio risk. Found that derivatives enhance liquidity and risk

<b>Author(s)</b>	<b>Key Findings</b>
	diversification but warned against over-reliance during periods of high market volatility.
Chaudhary & Kumar (2024)	Studied the risk-return dynamics of cryptocurrencies (Bitcoin, Ethereum). Found that while cryptocurrencies offer high returns in bullish markets, they are highly volatile and risky in bearish markets.
Wang & Zhang (2024)	Explored the integration of AI in financial risk management. Concluded that AI tools (e.g., deep learning, machine learning) improve risk prediction and asset allocation efficiency but also introduce new AI-specific risks that require regulation.
Leung & Zhang (2024)	Investigated the impact of behavioral biases on investor risk-return perception. Found that biases like overconfidence and herding behavior distort decision-making and risk assessments, leading to suboptimal investment strategies.
Martin & O'Connell (2024)	Analyzed institutional investors' global risk management strategies. Found that multi-asset strategies, including commodities, real estate, and digital assets, are increasingly used to reduce risk exposure, while geopolitical risks necessitate adaptive strategies.
Singh & Kaur (2024)	Analyzed the risk-return characteristics of sovereign bonds in developing countries. Found that while these bonds offer high yields, they carry significant political and economic risks, requiring careful consideration before investment.
Prasai et al. (2024)	Investigated risk and return dynamics of Nepalese commercial bank stocks. Found that high-return banks like Prabhu Bank have higher volatility, while risk-averse investors might prefer more stable banks like NMB and Nabil.
Thapa (2023)	Analyzed risk and return in Nepalese commercial bank stocks. Found that while there is potential for return, the banks' stocks exhibit high levels of risk and fluctuation, making risk management crucial for investors.
Adhikari & Jha (2015)	Applied portfolio theory in the Nepalese stock market. Found that while mean-variance optimization is applicable, the Nepali market's high volatility and limited diversification opportunities pose risks for investors.
Thapa (2022)	Analyzed risk in Nepalese commercial bank stocks. Found that beta (systematic risk) is a key tool for assessing risk, and investors need to balance high returns with risk, emphasizing risk management strategies in the volatile banking sector.

## **2.4 Research Gap**

The existing literature on the risk-return analysis of stock markets, particularly within the Nepalese context, presents valuable insights into investor decision-making. However, several research gaps remain that warrant further exploration. Prasai, Guragain, Shrestha, and Singh (2024) contributed significantly by analyzing the risk-return relationship for Nepalese commercial banks. Their study, focused on 18 banks, highlighted that while high-return options such as Prabhu Bank are volatile, more stable banks like NMB and Nabil cater to risk-averse investors. While this research provides critical insights into individual bank performance post-merger, it does not explore the broader macroeconomic factors, such as political stability, regulatory

changes, or global market conditions, which could influence the risk-return profiles of Nepalese stocks.

Similarly, Thapa (2022) analyzed the risks on common stocks of commercial banks in Nepal, emphasizing the use of standard deviation, beta, and coefficient of variation. This research identified tools for measuring risks but did not consider how other sectors in the stock market, beyond the banking industry, might offer different risk-return trade-offs. There is a need to expand the scope to include diverse industries, as this could provide a more comprehensive understanding of the Nepalese stock market's dynamics.

In addition, Adhikari and Jha (2015) examined the applicability of portfolio theory in Nepal's stock market, finding limited diversification opportunities due to high correlations among stocks. However, their study did not delve into the impact of investor psychology or behavioral biases in stock selection, which could provide further depth to risk-return analysis. Further research could investigate the evolving role of technology in stock market participation, such as online trading platforms and algorithmic trading, to better understand how these factors influence risk and return perceptions in Nepal.

Together, these studies offer a foundation but also highlight the need for broader, interdisciplinary research encompassing macroeconomic factors, industry diversification, and investor behavior to fill the gaps in understanding the Nepalese stock market's risk-return landscape.

## **CHAPTER III RESEARCH METHODOLOGY**

Research methodology sets out the overall plan associated with a study. It provides a basic framework on which the study is based. Before presenting the analysis and interpretation of data, it is necessary that research methodology be described first. In the absence of methodology, it is likely that the conclusions drawn may be misunderstood. This chapter of the research report consists of the research design, study population, sample size and selection, sampling techniques procedure, source of data, data collection method, data collection tools and instruments, data processing, data summary and presentation, and data analysis.

### **3.1 Research Design**

This study has used descriptive and causal-comparative research design. Historical data are used to identify and analyze the risk and return on common stock of Nepalese commercial banks in the past period. Similarly, management systems, organizational structures, and policies for mitigating risk and return on common stock of Nepalese commercial banks procedures have been presented descriptively to identify the current status, from which pitfalls can be identified. It is a systematic arrangement of the measures, factors, and tools to be applied in the collection and analysis of the data obtained in order to achieve the objectives of the study in the most efficient and effective way.

### **3.2 Population and Sample**

There are 20 commercial banks operating in Nepal, so the population of the study is 20 commercial banks. Among them, only 10 commercial banks have been selected for this study. This study examines the risk and return on common stock of Nepalese commercial banks over a period of 10 years (FY 2014 to 2023). The main source of secondary data will be the annual reports. The reason behind choosing the latest ten-year period is to include fresh data in the analysis. As the data are pooled from cross-sectional and time series sources, it is sufficient to generate insights for the analysis. The selected sample banks, including Nabil Bank Limited, Global IME Bank Limited, NMB Bank Limited, Everest Bank Limited, Machhapuchchhre Bank Limited, Himalayan Bank Limited, Standard Chartered Bank Limited, Siddhartha Bank Limited, Kumari Bank Limited, Prime Commercial Bank Limited, are among Nepal's

leading financial institutions with strong market presence and diverse services. These banks are known for their financial stability, profitability, and risk management practices. Their large customer base, coupled with effective asset-liability management, positions them as key players in the industry. The selected sample banks represent key determinants of common stock prices in Nepal's commercial banking sector, including profitability, market size, asset quality, and financial performance. Their consistent earnings, effective management, and strong market presence influence investor confidence and stock valuation, making them ideal for studying stock price determinants in the Nepalese banking context. The selection of sample size is important for any study. The purposive sampling method has been used in choosing the banks for the study. Moreover, in selecting the ten commercial banks for the study, due care is given to include both joint venture and private banks in the sample.

The banks selected for the study are described in the following table:

**Table 2**

*List of Sample Banks*

<b>S. N</b>	<b>Name of Banks</b>
1	Nabil Bank Limited
2	Global IME Bank Limited
3	NMB Bank Limited
4	Everest Bank Limited
5	Machhapuchchhre Bank Limited
6	Himalayan Bank Limited
7	Standard Chartered Bank Limited
8	Siddhartha Bank Limited
9	Kumari Bank Limited
10	Prime Commercial Bank Limited

**3.4 Nature and Sources of Data**

The study is based on secondary data obtained from published statements of accounts of the commercial banks in Nepal. The published accounts mainly include the balance sheets and income statements of commercial banks for the period 2014 to 2023. In addition, various annual and quarterly publications of the NRB and the Ministry of

Finance (MOF), NEPSE, Shareshansar were consulted. The variables used in the study are bank-specific variables, including.

The data are analyzed using SPSS (version 25) and Microsoft Excel. This section deals with the statistical models used for analyzing secondary data. Descriptive statistics, Pearson correlation, and regression analysis are used in this study. Correlation measures the degree of association, while regression is used to measure the significant relationship between independent and dependent variables.

### **3.5 Instrumentation of Data Collection**

The study utilizes secondary data collected from annual reports of sample commercial banks, along with bulletins, journals, periodicals, and online sources. The data, covering FY 2013/14 to 2022/23, is analyzed using SPSS 25 and Microsoft Excel. Descriptive statistics summarize quantitative data, presenting measures like mean, standard deviation, and variable ranges to characterize sample banks. Correlation analysis examines relationships between variables, while stepwise regression analysis identifies the influence of independent variables on dependent variables. Statistical tests, including t-tests, multicollinearity detection, and Cronbach's alpha for reliability, ensure model validity. Findings are presented in tables to facilitate interpretation of the relationships between variables, offering insights into the determinants of risk and return on common stock in Nepalese commercial banks. This structured analysis aids in deriving meaningful conclusions regarding financial performance and risk management in the banking sector.

### **3.6 Method of Analysis**

These data analysis techniques can be used independently or in combination with the other to help business leaders and decision-makers acquire business insights from different data types.

#### **Descriptive Statistical**

The basic features of a population or a sample in a study can be described by using descriptive analysis. This analysis provides simple summaries about the sample as well as the measures as it transforms the unanalyzed data into a simpler pattern which is easier for interpretation and understanding purposes. Descriptive analysis summarizes the collected information in quantitative form. The statistics computed include frequency distribution and percentages. For this study, descriptive data

analytical approaches were employed to analyze the variables related to customer satisfaction of e-banking.

Besides the statistical tools such as mean, standard deviation had been used. Short descriptions of the statistical tools are presented below:

### **i) Arithmetic Mean**

The arithmetic mean or simple mean of set of observations is the sum of all the observation divided by the number of observations. It is the best value, which represents the whole group. It is also called arithmetic average or simply average of a variable. Arithmetic mean of a series is given by:

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

Where,

$\sum x$  = Sum of the variables 'x'

n = No. of Observation

### **ii) Standard Deviation**

Standard deviation is defined as the positive square root of the mean as square of the deviation takes from the arithmetic mean. It indicates the ranges and size of deviance from the middle or mean. The standard deviation is the absolute measure of dispersion which satisfies most of the requisites of a good measure of dispersion. Higher the standard deviation Higher will be the variability and vice versa. In other words, it helps to analyze the quality of data regarding its variability. It is calculated as:

$$\text{Standard Deviation (SD)} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

### **iii) Co-efficient of Variation**

Standard deviation is the absolute measure of dispersion. The relative measure of dispersing based on the standard deviation is known as the measurement of coefficient of standard deviation. Variance is the square of SD. It gets rid of the units that succeed the SD Value. However, a better relative measure would be the coefficient of variation. CV is capable to compare two variables independently in terms of their variability. The formula to calculate CV is given by:

$$\text{Coefficient of Variation (CV)} = \frac{\text{S. D.}}{\bar{X}} \times 100\%$$

## **Inferential Analysis**

### **i) Correlation Coefficient**

Correlation coefficient is defined as the association between the independent variable and dependent variable. It is a method of determining the degree of relationship between these two variables. If the two variables are so related, change in the value of independent variable causes the change in the value of dependent variable. Correlation Coefficient is given by:

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

Where,

r = coefficient of correlation

$\sum XY$  = Sum of product of two series.

$\sum X^2$  = Sum of squared in X series

$\sum Y^2$  = Sum of squared in Y series

n = number of years

The value of r lies between -1 and +1. Negative value means negative relationship among the dependent and independent variables, whereas positive value means positive relationship. The extreme points -1 and +1 show perfect relationship whereas 0 values show no relationship exists between the variables.

### **ii) Multiple Regression analysis**

Multiple Linear Regression model consists of one dependent variable and at least two independent variables. It is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. It is the determination of statistical relationship between two or more variables. In simple, under regression two variables are used. One variable (independent) is the cause of the behavior of another one (dependent). Besides, this model can explain the relationship between each independent variable and dependent variable as the coefficient indicates the average value change in dependent variable when there is a unit change in the independent variable (Hair et al., 2007). The R-squared or commonly known as the coefficient of determination indicates the proportion of the variation of the dependent variable that can be explained by the variation of the independent variables.

### iii) Model specification

The aim of this study tries to analyze the bank specific determinant of stock markets. This study used Price-to-Book Ratio as dependent variables whereas, Earnings Per Share, Price-to-Earnings Ratio, Dividend per shareRatio, Debt-to-Equity Ratio, Return on Equity, GDP Growth, Inflation, are used Independent variables. A model will be designed to assess risk and return on common stock of the regression equation takes the form:

$$MPS_{it} = B_0 + B_1EPS + B_2PER + B_3DYZ + B_4DER + B_5ROA + B_6GDP + B_7INF + e \dots \dots \dots (i)$$

$$PBR_{it} = B_0 + B_1EPS + B_2PER + B_3DYZ + B_4DER + B_5ROA + B_6GDP + B_7INF + e \dots \dots \dots (i)$$

Where,

MPS= Market Price per share

PBR= Price-to-Book Ratio

EPS= Earnings per Share

PER= Price-to-Earnings Ratio

DYZ= Dividend per share

DER= Debt-to-Equity Ratio

ROA = Return on Equity

GDP=GDP Growth

INF= Inflation

B<sub>0</sub>= Constant

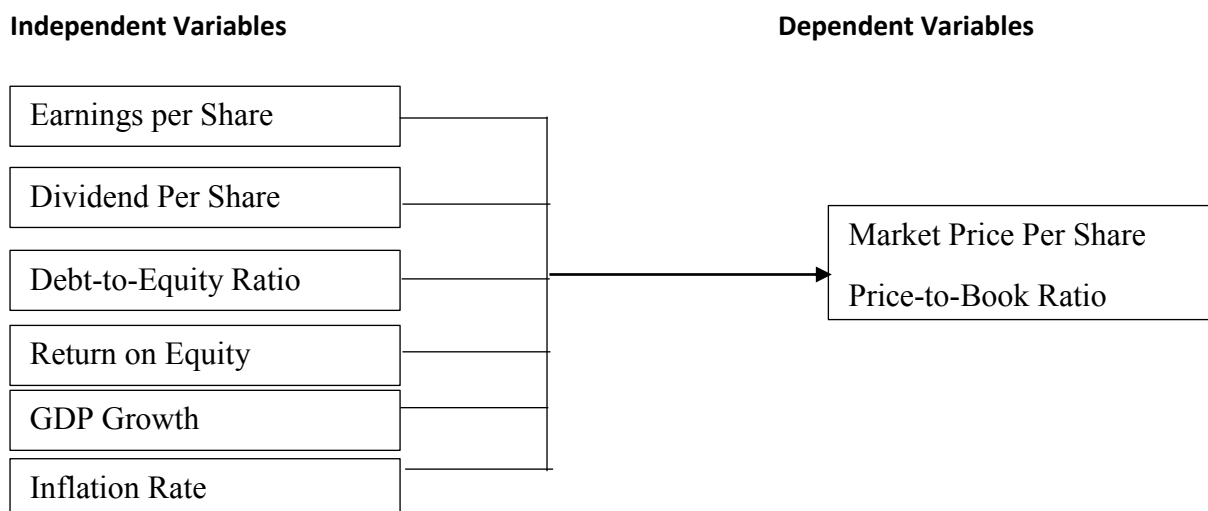
B<sub>1</sub>= Coefficients of predictors

e= Error term

### 3.7 Research Framework

The research framework examines the relationship between the dependent and independent variables. The dependent variable, Price-to-Book Ratio (P/B Ratio) and Market price per Share, reflects a company's market valuation relative to its book value. Independent variables include Earnings Per Share (EPS), representing profitability per share, indicating market expectations of earnings growth; and Dividend Yield, showing returns to investors. Financial structure is analyzed using Leverage (Debt-to-Equity Ratio), while Return on Equity (ROE) assesses profitability. External factors like Economic Growth Rate (GDP Growth) and

Inflation Rate provide macroeconomic context. The framework explores how these variables collectively influence the P/B Ratio and MPS.



*Figure 1: Conceptual Framework*

### 3.8 Definitions of Variables

#### Price-to-Book Ratio (P/B Ratio)

The Price-to-Book Ratio (P/B Ratio) compares a company's current market price per share to its book value per share. It serves as an essential valuation metric in determining whether a stock is undervalued or overvalued relative to its assets. A higher P/B ratio often reflects high investor expectations for future growth, while a lower P/B ratio could indicate potential undervaluation or risk factors. Investors commonly use this ratio to assess a company's intrinsic value, particularly in industries with significant tangible assets. For example, companies with stable performance and predictable earnings often exhibit higher P/B ratios. Conversely, distressed or underperforming firms may have lower P/B values. However, this ratio should be interpreted alongside other financial metrics to provide a comprehensive view of a company's financial health and market positioning (Damodaran, 2012).

#### Market Price Per Share (MPS)

Market Price Per Share (MPS) refers to the current trading price of a company's stock in the financial market. It represents the amount investors are willing to pay for a single share of the company's equity at a given time. MPS fluctuates based on supply and demand dynamics, influenced by factors such as the company's financial performance, growth prospects, market conditions, and investor sentiment. It is a key indicator for assessing the market valuation of a company and plays a critical role in

investment decisions. MPS can be observed in stock exchanges or over-the-counter markets where the company's shares are traded.

### **Earnings per Share (EPS)**

Earnings per Share (EPS) measures a company's profitability by dividing its net income by the number of outstanding shares. It is a critical indicator of a company's financial health and its ability to generate earnings for shareholders. A higher EPS generally reflects strong performance, signaling that a company is effectively managing its resources and delivering value to investors. Companies with consistently rising EPS are often more attractive to investors, as they indicate sustained growth and profitability. EPS is also a core component in calculating other valuation metrics, such as the Price-to-Earnings Ratio (P/E Ratio), and is widely used in comparing companies across similar industries. However, EPS can be influenced by factors like stock buybacks or accounting practices, making it essential to consider in conjunction with other financial indicators (Bodie et al., 2014).

### **Dividend per Share**

Dividend per share represents the annual dividend paid by a company as a percentage of its current stock price. It is a key measure for income-focused investors, as it provides an indication of the return generated through dividends. Companies with high dividend yields are often perceived as stable and reliable, particularly in sectors like utilities or consumer goods. However, an excessively high yield could also signal financial distress or unsustainable dividend payments. Dividend per share helps investors evaluate the income-generating potential of an investment, especially in low-growth market conditions. While it is a vital metric for risk-averse investors, it should be analyzed alongside the company's overall financial health and growth prospects (Graham et al., 2009).

### **Leverage (Debt-to-Equity Ratio)**

Leverage, commonly measured by the Debt-to-Equity Ratio, assesses the proportion of a company's debt compared to its shareholders' equity. This ratio reflects a company's financial leverage and its ability to meet long-term obligations. A higher leverage ratio indicates that a company is heavily reliant on debt financing, which can amplify both returns and risks. While leverage can boost returns during favorable market conditions, it also increases financial vulnerability in times of economic downturns or declining revenues. A balanced Debt-to-Equity Ratio is generally

preferred, as excessive debt may deter investors due to potential solvency risks (Ross et al., 2016).

### **Return on Equity (ROE)**

Return on Equity (ROE) measures a company's ability to generate profit from shareholders' equity. It is calculated by dividing net income by shareholders' equity, providing insight into how efficiently a company utilizes investments to generate earnings. A higher ROE typically indicates effective management and strong financial performance, making it an attractive metric for investors. Companies with consistently high ROE often signify a competitive advantage and a robust business model. However, excessive financial leverage can inflate ROE artificially, requiring careful interpretation of this ratio in conjunction with other metrics (Brigham & Ehrhardt, 2013).

### **Economic Growth Rate (GDP Growth)**

The Economic Growth Rate, commonly represented by GDP Growth, is a macroeconomic indicator reflecting the rate of expansion in a country's economy. Higher GDP growth rates often translate to increased corporate earnings, consumer spending, and investment opportunities, creating a favorable environment for stock market performance. This growth metric serves as a barometer of economic health and influences investor confidence in equity markets. Companies operating in rapidly growing economies often experience higher demand and profitability, driving stock prices upward. Conversely, slow or negative GDP growth can signal economic stagnation and reduced investor optimism (Blanchard, 2017).

### **Inflation Rate**

The Inflation Rate measures the average increase in prices for goods and services over time, reflecting the erosion of purchasing power. Inflation significantly impacts stock market returns, as rising prices can lead to increased costs for businesses, particularly those with fixed input expenses. High inflation often prompts central banks to raise interest rates, negatively affecting equity valuations. However, some industries, such as commodities, may benefit from inflationary environments. As a critical macroeconomic indicator, inflation influences investor decisions and portfolio strategies, requiring careful monitoring and management (Mishkin, 2019).

## CHAPTER IV RESULTS AND DISCUSSION

### 4.1 Results

The results of this analysis provide a comprehensive overview of the financial metrics for multiple banks over a span of several years. It reveals significant differences in performance, with NABIL showing stability and lower variability, as indicated by its low coefficient of variation (CV) and standard deviation. On the other hand, PCBL demonstrates higher volatility, with the largest standard deviation and CV, suggesting greater fluctuations in performance.

#### 4.1. Analysis of status of variables

##### Market Price per Share (MPS)

The market price per share reflects the current value at which a company's stock is traded. It represents investors' confidence and expectations about the company's future profitability and stability. Changes in the market price can be influenced by financial performance, economic trends, and industry developments, making it a critical metric for investors.

**Table 3**

*Analysis of Market Price per Share*

Year /Bank	NABIL	NMB	EBL	HBL	SCB	GIME	SBL	KBL	PCBL	MBL
2014	2535	515	2631	941	2799	640	810	536	195	576
2015	1910	507	2120	813	1943	479	678	380	265	564
2016	2344	810	3385	1500	3600	515	869	345	479	680
2017	1523	545	1353	886	2295	388	485	327	255	360
2018	921	358	663	551	755	290	300	250	278	209
2019	800	382	666	552	682	293	318	246	287	264
2020	765	397	675	540	645	239	296	186	421	220
2021	1359	440	738	484	590	441	504	387	746	385
2022	824	261	439	299.2	396	286	303	210.9	455	254
2023	599	226	563	212.8	530	186	253	184	583	231.8
Mean	1358.	444.1	1323.30	677.90	1423.50	375.70	481.60	305.19	396.40	374.38
SD	632.79	150.04	933.58	337.76	1036.17	128.36	207.88	100.89	157.17	156.24
CV	0.47	0.34	0.71	0.50	0.73	0.34	0.43	0.33	0.40	0.42

*Source: Annual report of sample bank (FY 2014 to 2023)*

Table 3 presents an analysis of the market price per share for various banks from 2014 to 2023. The results indicate that SCB has the highest mean market price per share at 1423.50, followed by NABIL at 1358. The PCBL and MBL show the lowest average market prices at 396.40 and 374.38, respectively. The standard deviations (SD) reveal significant variability in market prices, particularly for SCB (1036.17) and EBL (933.58), indicating greater fluctuations in their stock prices. The coefficient of variation (CV), which measures relative variability, is highest for EBL (0.71), suggesting that its market price is more volatile compared to other banks. On the other

hand, NMB and GIME show lower CV values, reflecting more stable market price movements. Overall, this analysis provides insights into the stability and fluctuations of stock prices across different banks in the period analyzed.

### Price-to-book (P/B) ratio

The price-to-book (P/B) ratio is a financial metric used to compare a company's market price per share to its book value per share. It reflects how much investors are willing to pay for each dollar of a company's net assets. A P/B ratio below 1 indicates that the market values the company less than its net assets, which may suggest undervaluation or financial distress. Conversely, a ratio above 1 suggests the market sees growth potential or strong profitability. This ratio is commonly used in valuation analysis, particularly in asset-intensive industries like banking, to assess whether a stock is fairly priced.

**Table 4**

*Analysis of Price-to-book (P/B) ratio*

Year /Bank	NABIL	NMB	EBL	HBL	SCB	GIME	SBL	KBL	PCBL	MBL
2014	3.28	2.498	0.180	2.815	2.545	1.754	1.540	1.783	1.968	1.911
2015	2.833	2.414	0.233	2.843	2.179	1.466	1.765	1.248	2.822	1.768
2016	5.309	2.029	0.369	2.778	3.391	2.706	3.113	2.867	5.347	2.994
2017	3.206	1.442	2.008	1.594	2.129	1.682	1.792	1.233	3.163	1.821
2018	2.340	1.506	2.564	1.134	2.804	1.257	1.547	1.308	3.972	1.692
2019	5.410	3.113	2.111	3.047	2.940	3.667	1.724	1.880	1.438	1.995
2020	2.728	2.988	2.646	3.074	2.877	3.413	1.615	1.810	1.322	2.868
2021	0.002	5.414	3.000	3.179	2.569	3.122	2.285	2.708	2.726	5.011
2022	0.000	3.552	1.784	1.819	1.763	2.063	1.682	1.758	1.457	3.143
2023	0.000	2.852	1.460	2.374	1.370	2.477	1.107	1.408	1.390	4.163
Mean	2.51	1.39	1.49	1.68	2.60	1.16	1.36	1.13	2.10	1.39
SD	1.82	1.01	1.81	1.22	2.20	0.85	0.98	0.88	1.66	0.99
CV	0.72	0.73	1.21	0.73	0.85	0.73	0.72	0.78	0.79	0.71

*Source: Annual report of sample bank (FY 2014 to 2023)*

Table 4 presents an analysis of the Price-to-Book (P/B) ratio for various banks from 2014 to 2023. The P/B ratio is a key indicator of a bank's market valuation relative to its book value. For NABIL, the ratio fluctuates significantly, with the highest value of 5.309 in 2016 and the lowest of 0.002 in 2021, suggesting large variations in market perceptions. SCB and EBL show similarly high peaks in 2016 and 2019, reflecting increased investor optimism or market dynamics, while NMB and GIME display lower ratios, indicating relative undervaluation.

The mean values of the ratios for most banks are below 2, with SCB having the highest average of 2.60, suggesting that it is more favorably valued compared to other banks. The standard deviation (SD) is relatively high for many banks, such as NABIL

(1.82) and SCB (2.20), highlighting substantial volatility in their market-to-book valuations. The coefficient of variation (CV) is also notable, particularly for EBL (1.21), indicating greater variability in its market value relative to its book value over time. This analysis shows significant differences in the market's perception of these banks across the period, influenced by both internal performance factors and external market conditions.

### Return on Equity (ROE)

ROE measures how effectively a company utilizes shareholders' equity to generate profits. It provides insights into financial performance and management efficiency. A higher ROE indicates the company is generating significant returns for its investors, making it an essential indicator of financial health.

**Table 5**

#### *Analysis of Return on Equity (ROE)*

Year /Bank	NABIL	NMB	EBL	HBL	SCB	GIME	SBL	KBL	PCBL	MBL
2014	32.78	13.54	13.2	9.56	26.27	14	19.82	21.25	32.78	20.87
2015	27.97	13.32	13.7	9.9	21.69	16	20.54	20.69	27.91	20.67
2016	22.73	8.94	15.9	10.2	17.18	13	20.3	2.67	22.73	21.26
2017	25.61	12.08	15.6	10.48	11.98	15.88	19.93	21.96	16.5	24.51
2018	26.65	12.95	16	11.25	18.66	19.33	20.02	16.49	16.84	19.87
2019	20.94	13.32	16.05	20.17	19.49	16.19	14.71	13.54	12.09	16.67
2020	17.76	8.94	17.54	17.06	15.15	18.47	13	13.32	22.73	17.67
2021	13.61	12.08	18.59	24.53	9.44	12.88	8.92	8.94	19.26	19.98
2022	15.19	12.95	20.64	21.58	14.21	13.53	11.04	12.08	18.43	12.01
2023	9.78	11.65	22.75	20.17	20.78	13.93	11.17	12.95	18.92	8.94
Mean	21.302	11.977	16.997	15.49	17.485	15.321	15.945	14.389	20.819	18.245
SD	6.518	1.553	2.689	5.245	4.497	2.039	4.199	5.434	5.419	4.211
CV	0.306	0.130	0.158	0.339	0.257	0.133	0.263	0.378	0.260	0.231

*Source: Annual report of sample bank (FY 2014 to 2023)*

Table 5 presents an analysis of Return on Equity (ROE) for various banks from 2014 to 2023, providing insights into their profitability relative to shareholder equity. NABIL shows consistently high ROE values throughout the years, with the highest in 2014 (32.78%) and a mean of 21.30%, indicating strong profitability. In contrast, NMB and GIME demonstrate more stable but lower ROE, with NMB averaging 11.98% over the period, reflecting moderate profitability.

EBL, SCB, and PCBL show variability, with fluctuations in ROE over the years, particularly SCB, which peaked at 26.27% in 2014 but dropped to around 9.44% in 2021. On the other hand, HBL had lower ROE values, with a mean of 15.49%, indicating a steady yet modest return on equity. The standard deviation (SD) values show considerable variation in most banks, especially for SBL (4.199) and KBL (5.434), pointing to fluctuating performance across the years.

The coefficient of variation (CV) further indicates that NMB (0.130) and GIME (0.133) exhibit lower volatility in their ROE compared to other banks, such as SBL (0.263) and KBL (0.378), reflecting more stable returns in those institutions.

### Earnings Per Share (EPS)

EPS represents the portion of a company's profit attributed to each outstanding share. It is a primary measure of profitability, often used by investors to gauge a company's performance and potential for growth. Higher EPS is generally seen as a sign of financial strength and success.

**Table 6**  
*Analysis of Earnings per Share (EPS)*

Year /Bank	NABIL	NMB	EBL	HBL	SCB	GIME	SBL	KBL	PCBL	MBL
2014	83.68	20.5	86.04	33.1	65.47	19.57	38.63	18.17	20.97	18.34
2015	57.24	25.05	78.04	33.37	57.38	15.58	37.77	18.69	23.74	22.2
2016	59.27	27.78	40.33	43.03	45.96	19.33	41.53	16.24	30.11	25.04
2017	59.86	26.88	32.48	35.15	35.49	25.51	26.6	26.53	23.21	24
2018	49.51	28.67	32.78	23.11	27.33	23.64	26.45	11.83	21.49	15.81
2019	50.57	18.79	38.05	32.44	30.39	23.47	23.07	15.77	23.6	21.07
2020	36.16	11.18	29.71	27.6	24.81	17.99	19.55	10.75	16.1	14.96
2021	33.57	14.76	19.91	28.07	23.92	19.25	22.79	12.9	20.32	17.76
2022	18.64	17.92	26.3	18.26	23.92	20.84	20.6	15.01	14.94	16.44
2023	23.67	17.55	31.43	9.18	36.75	22.06	22.48	9.86	5.3	15.85
Mean	47.22	20.91	41.51	28.33	37.14	20.72	27.95	15.58	19.98	19.15
SD	17.66	5.37	20.06	8.65	13.27	2.7	7.41	4.41	6.03	3.31
CV	0.37	0.26	0.48	0.31	0.36	0.13	0.27	0.28	0.30	0.17

*Source: Annual report of sample bank (FY 2014 to 2023)*

Table 6 presents an analysis of Earnings Per Share (EPS) for various banks from 2014 to 2023. NABIL consistently leads with the highest EPS, averaging 47.22 over the period, peaking at 86.04 in 2014. This indicates strong profitability and shareholder returns. Conversely, NMB and GIME exhibit relatively low and stable EPS figures, with NMB averaging 20.91 and GIME 20.72, demonstrating more modest earnings compared to other banks. Notably, SCB shows significant fluctuations, with a high EPS of 65.47 in 2014 and a decline to 9.18 in 2022. Similarly, KBL and SBL experienced volatility, reflecting varying profit performance over the years. The mean EPS values highlight differing profitability levels, with banks like NABIL and SCB performing better compared to others such as PCBL and MBL, which had lower average EPS. The standard deviation (SD) values indicate that GIME (2.7) had the lowest fluctuation in EPS, whereas EBL (20.06) exhibited more variability in its earnings. The coefficient of variation (CV) shows that GIME had the least variability (0.13), while EBL (0.48) displayed the highest variability, suggesting less consistent earnings. This highlights the different performance dynamics across the banks, where

some maintain steady profitability, while others are subject to greater earnings fluctuations.

### Dividend per Share (DPS)

DPS indicates the amount of profit distributed to shareholders for each share they own. It is a critical measure of a company's ability to share earnings with its investors and reflects its commitment to rewarding shareholders while balancing reinvestment for growth.

**Table 7**  
*Analysis of Dividend Per Share (DPS)*

Year /Bank	NABIL	NMB	EBL	HBL	SCB	GIME	SBL	KBL	PCBL	MBL
2014	65	21.05	12	21.05	51.5	1	23.16	33	16	12.63
2015	36.84	8.42	30	42.11	44.21	3	21.05	11	27	16.84
2016	45	20	70	31.58	35.09	10	48.75	21	17.25	21.84
2017	48	15.79	33	26.32	105.26	14	14	12.75	18.95	15
2018	34	30	0	15.79	17.5	12.75	13.16	0.16	20	10
2019	34	35	5	22	22.5	16	10	15	0	16
2020	35.26	16.2	5	20	11.84	10	12	10.27	4	10.4
2021	38	15.8	6	26	13.06	16	14.25	8	16	14
2022	30	8.25	13	19.11	16.51	23	12.5	3.37	15	0
2023	11	0	10	0	19	21	0	0	16	14
Mean	37.71	17.05	18.4	22.4	33.65	12.68	16.89	11.45	15.02	13.07
SD	12.47	9.35	19.07	9.84	25.86	6.35	11.59	9.08	7.00	5.16
CV	0.33	0.55	1.04	0.44	0.77	0.50	0.69	0.79	0.47	0.39

*Source: Annual report of sample bank (FY 2014 to 2023)*

Table 7 shows the Dividend Per Share (DPS) for different banks over the years 2014 to 2023. The results reveal varied dividend payout practices across banks, with NABIL maintaining a higher average DPS of 37.71, compared to others. Notably, SCB and EBL show considerable volatility, particularly in 2017 with a substantial increase for SCB (105.26) and a notable drop for EBL (0). NMB and SBL display moderate and somewhat stable DPS trends, while GIME consistently pays lower dividends, indicating a more conservative approach to profit distribution. In contrast, KBL, PCBL, and MBL had sporadic DPS figures, with KBL showing a decline over time. The mean DPS values indicate that NABIL and SCB are the top performers in terms of dividend payout, while MBL and PCBL exhibit the lowest payouts. The standard deviation (SD) values highlight greater variability in SCB (25.86), pointing to fluctuating dividend policies, whereas GIME (6.35) shows the least fluctuation, suggesting a more stable dividend strategy. The coefficient of variation (CV) shows that EBL has the highest variability (1.04), highlighting inconsistencies in its dividend payments. These variations reflect different dividend policies and strategies across

banks, influenced by their profitability, market conditions, and management decisions.

### **Leverage (Debt-to-Equity Ratio)**

This ratio assesses a company's financial leverage by comparing its total debt to shareholder equity. It indicates the proportion of funding that comes from creditors versus shareholders, helping evaluate financial stability and risk. A balanced ratio is typically viewed as a sign of prudent financial management.

**Table 8**

*Analysis of Leverage (Debt-to-Equity Ratio)*

Year /Bank	NABIL	NMB	EBL	HBL	SCB	GIME	SBL	KBL	PCBL	MBL
2014	9.98	10.42	9.3	9.59	9	8.28	10.01	9.15	-0.6	8.51
2015	9.74	9.91	9.4	10.2	9	8.39	9.52	9.62	2.92	4.46
2016	10.18	8.84	10	11.2	9.5	7.58	9.54	9.17	6.32	9.59
2017	10.51	9.34	10	11	9.4	8.85	13.05	9.79	9.01	9.86
2018	11.21	12.39	13	13.5	11	11	11.58	12.4	13.4	9.7
2019	11.7	14.78	13	13.5	11	11.6	11.58	11.3	9.52	10.8
2020	11.81	13.11	12	13.4	12	11.4	11.39	11	9.54	9
2021	11.4	13	12	12.2	12	11.8	11.77	10.3	13.1	8.4
2022	10.67	11.42	11	12.4	11	11.1	11.11	9.49	11.6	9.1
2023	10.76	10.36	11	11	10	12.2	12.15	9.05	11.5	11
Mean	10.80	11.36	11.07	11.80	10.39	10.22	11.17	10.13	8.63	9.04
SD	0.65	1.73	1.26	1.28	1.05	1.57	1.04	1.01	4.10	1.65
CV	0.06	0.15	0.11	0.11	0.10	0.15	0.09	0.10	0.47	0.18

*Source: Annual report of sample bank (FY 2014 to 2023)*

Table 8 illustrates the Debt-to-Equity Ratios (Leverage) for various banks from 2014 to 2023, showing how these institutions balance debt and equity financing. NMB and PCBL demonstrate higher variability in their leverage ratios, with PCBL experiencing notable fluctuations, especially in 2014. GIME and SBL exhibit relatively stable leverage ratios, with GIME having the lowest variability. While NABIL and HBL maintain consistent leverage ratios around 10.8 and 11.8, respectively, PCBL has the lowest average leverage ratio (8.63), indicating lesser debt reliance. In contrast, HBL has the highest average ratio (11.80), signaling more extensive use of debt. The coefficient of variation (CV) reveals that banks like SBL and KBL have more stable debt structures, whereas PCBL and GIME display greater instability in their debt policies, with PCBL exhibiting the highest CV at 0.47. These differences provide insights into each bank's financial risk and capital structure management strategies.

### **4.1.7 GDP Growth**

GDP growth measures the overall economic expansion of a country. A growing GDP suggests increased economic activity, which often benefits businesses through higher demand and improved profitability. It is a key indicator of the macroeconomic environment influencing corporate performance.

**Table 9**  
*Annual trend of Gross Domestic Product of Nepal*

Year	Gross Domestic Product (GDP) (%)
2014	3.6
2015	4.0
2016	0.4
2017	9.0
2018	47.6
2019	6.7
2020	-2.1
2021	4.0
2022	5.8
2023	4.9

*Sources: Nepal Rastra Bank, 2023.*

Table 9 shows the annual trend of Nepal's Gross Domestic Product (GDP) growth rate from 2014 to 2022. The data reflects fluctuating economic performance, with growth peaking at 9.0% in 2016, followed by a dramatic drop to 0.4% in 2015, possibly due to the aftermath of the earthquake and political instability. The economy rebounded with 6.7% growth in 2018, but the negative impact of the COVID-19 pandemic is evident in 2019, where GDP contracted by 2.1%. Afterward, the economy showed signs of recovery, with 4.0% growth in 2020, 5.8% in 2021, and 4.9% in 2022. These figures demonstrate Nepal's resilience amid challenges like natural disasters and global economic downturns.

#### **4.1.8 Inflation**

Inflation tracks the rate at which prices for goods and services rise over time, reducing purchasing power. It affects both consumers and businesses, influencing costs, revenues, and profitability. For companies, managing inflationary pressures is crucial to maintaining financial performance.

**Table 10**  
*Annual trend of Inflation in Nepal*

Year	Inflation Rate (INF) in %
2014	4.24
2015	5.3
2016	4.91
2017	4.2
2018	4.64
2019	6.15
2020	3.6
2021	6.32
2022	7.28
2023	6.54

*Sources: Nepal Rastra Bank, 2023.*

Table 10 presents the annual trend of inflation in Nepal from 2014 to 2023. The inflation rate has fluctuated significantly over the years, peaking at 7.28% in 2022,

following a relatively steady range in the earlier years. In 2014, inflation stood at 4.24%, and it saw a slight rise to 5.3% in 2015. It then slightly decreased to 4.91% in 2016, before dipping to 4.2% in 2017. Inflation rates remained modest through 2018 (4.64%) and 2019 (6.15%). The COVID-19 pandemic led to a decrease to 3.6% in 2020, but inflation surged again to 6.32% in 2021. The year 2022 saw the highest inflation of the decade at 7.28%, possibly influenced by global economic conditions, before slightly easing to 6.54% in 2023. These fluctuations reflect the economic challenges faced by Nepal, including supply chain disruptions, global inflationary pressures, and internal factors like food prices and currency depreciation.

#### 4.1.2 Descriptive Analysis

Descriptive analysis is a statistical method used to summarize and interpret raw data, providing a clear and concise overview of its key characteristics. It focuses on measures such as mean, median, standard deviation, and range to describe the central tendency, variability, and distribution patterns within a dataset. This type of analysis is foundational, offering insights into the data's structure and trends, which help guide further analysis. In financial or economic research, descriptive analysis enables researchers to identify anomalies, establish baselines, and prepare datasets for more advanced techniques like regression or correlation analysis.

#### Descriptive Statistics

Descriptive statistics summarize and organize data to provide a clear overview of trends and variability. These measures, such as mean and standard deviation, help identify patterns and insights within datasets, forming the foundation for deeper analysis.

**Table 11**

*Descriptive Statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
MPS	100	184.0	3600.0	716.007	694.6126
P/BR	100	.0000	7.531	1.680	1.581
ROE	100	2.6700	32.780	16.796	5.420
EPS	100	5.300	86.040	27.847	15.145
DPS	100	.0000	105.260	19.831	16.208
LEV	100	-.600	14.780	10.477	2.0731
GDP	90	-2	9	4.30	3.175
INF	100	3.600	7.280	5.31	1.1471
Valid N (listwise)	90	90	90	90	90

Table 11 presents descriptive statistics for several key financial variables in the study. The dataset includes 100 observations for most variables, except for GDP and

Inflation, where 90 data points were valid. The Market Price per Share (MPS) has a wide range, with a minimum value of 184 and a maximum of 3600, showing substantial variation (mean = 716.01, SD = 694.61). The Price-to-Book Ratio (P/BR) spans from 0 to 7.531, with a mean of 1.68 and a relatively high standard deviation of 1.58, indicating some degree of volatility. The Return on Equity (ROE) has a broad range, from 2.67% to 32.78%, and an average of 16.80%, suggesting varying profitability levels across firms. The Earnings Per Share (EPS) ranges from 5.30 to 86.04, with a mean of 27.85, reflecting differences in earnings performance. The Dividend per Share (DPS) shows a wide range, from 0 to 105.26, with a mean of 19.83, indicating variability in dividend payouts. The Leverage (LEV) ratio varies from -0.60 to 14.78, with a mean of 10.48, suggesting different levels of debt use. For macroeconomic variables, GDP growth has a mean of 4.30% with a relatively high standard deviation of 3.18, reflecting economic fluctuations. Lastly, Inflation (INF) has a mean of 5.31%, with a standard deviation of 1.15, indicating moderate variation in the inflation rate over the years.

#### 4.1.3 Correlation Analysis

Correlation analysis examines the relationship between two variables to determine how closely they move together. It identifies whether variables are positively or negatively associated, offering valuable insights into interdependencies that can guide decision-making.

**Table 12**

*Correlation Coefficients*

	ROE	EPS	DPS	LEV	GDP	INF	MPS	P/BR
ROE	1							
EPS	.339**	1						
DPS	.228*	.569**	1					
LEV	-.337**	-.081	-.081	1				
GDP	.087	.084	.066	-.056	1			
INF	-.185	-.240*	-.209*	.152	.325**	1		
MPS	.187	.785**	.695**	-.090	-.052	-.225*	1	
P/BR	.252*	.331**	.260**	-.069	-.076	-.412**	.204*	1

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

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

Table 12 presents a correlation analysis of various financial and macroeconomic indicators, highlighting both positive and negative relationships. The Return on Equity (ROE) shows a moderate positive correlation with Earnings Per Share (EPS) and Dividend Per Share (DPS), suggesting that firms with higher returns also tend to

pay higher dividends. However, ROE is negatively correlated with Leverage (LEV), indicating that companies with higher equity returns typically have lower debt levels. EPS is strongly positively correlated with both MPS (Market Price per Share) and P/BR (Price-to-Book Ratio), reflecting the influence of earnings on market valuation. DPS also shows positive correlations with EPS and MPS, emphasizing that profitable companies tend to reward shareholders with higher dividends and stronger stock performance. Leverage (LEV) negatively correlates with both profitability metrics (ROE, EPS, DPS), suggesting that companies with higher debt may experience lower profitability and shareholder payouts. Inflation (INF) has a negative impact on EPS, DPS, and MPS, indicating that rising inflation may reduce earnings and stock prices. Meanwhile, GDP has weak correlations with other variables, suggesting limited direct influence from overall economic growth. This analysis offers insight into the interdependence of financial performance and macroeconomic factors, important for investors assessing the market dynamics.

#### 4.1.4 Regression Analysis

Regression analysis explores the impact of independent variables on a dependent variable. It helps quantify relationships and make predictions, providing a robust framework for understanding factors influencing outcomes and their relative importance.

#### Analysis of Determinants of MPS

**Table 13**

*Model Summary of MPS*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.863a	.745	.726	378.1049	.745	40.341	6	83	.000

a. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

Table 13 presents the Model Summary for the Multiple Regression analysis of Market Price to Sales (MPS). The model shows a high correlation ( $R = 0.863$ ), indicating a strong relationship between the independent variables (Inflation, ROE, DPS, GDP, Leverage, and EPS) and MPS. The R Square value (0.745) reveals that approximately 74.5% of the variation in MPS can be explained by these predictors, which is substantial. The Adjusted R Square (0.726), slightly lower than R Square, accounts for the number of predictors used, ensuring that the model's strength is not overstated. The Standard Error of the Estimate is 378.1049, reflecting the average distance between observed values and the model's predictions. Additionally, the F Change

statistic (40.341) with a significance level of 0.000 further supports the model's overall validity, showing that the predictors significantly explain the variance in MPS.

**Table 14**

*ANOVA analysis of MPS*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34603619.688	6	5767269.948	40.341	.000b
	Residual	11865952.281	83	142963.280		
	Total	46469571.969	89			

a. Dependent Variable: MPS  
b. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

Table 14 shows that the ANOVA analysis of Market Price per Share (MPS) in Table 11 indicates a statistically significant model. The regression model explains a substantial proportion of the variability in MPS, with a F-value of 40.341, and a p-value of 0.000, which is less than the significance level of 0.05. This suggests that the predictors (Inflation, ROE, DPS, GDP, Leverage, and EPS) collectively have a significant effect on MPS. The sum of squares shows that the regression model accounts for 34,603,619.688 units of variability, while the residual error accounts for 11,865,952.281 units.

**Table 15**

*Coefficients of MPS*

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	11.595	339.182		.034	.973
	ROE	-13.182	8.208	-.101	-1.606	.112
	EPS	28.603	3.263	.619	8.765	.000
	DPS	16.880	2.949	.389	5.725	.000
	LEV	-15.029	20.929	-.043	-.718	.475
	GDP	-30.233	13.763	-.133	-2.197	.031
	INF	17.195	38.956	.028	.441	.660

a. Dependent Variable: MPS

Table 15 presents the Coefficients of the model analyzing the factors influencing Market Price to Book Ratio (MPS). The unstandardized coefficients represent the actual change in MPS for each one-unit change in the predictor variables, while the standardized coefficients (Beta) show the relative importance of each variable in predicting MPS. The constant value is 11.595, but it is not statistically significant (p-value = 0.973), meaning it does not contribute to the model. Among the predictors, Earnings Per Share (EPS) has the highest standardized coefficient (0.619), and a highly significant p-value (0.000), indicating that EPS has a strong positive impact on MPS. Similarly, Dividend Per Share (DPS) is also significant (p-value = 0.000) with a positive coefficient of 16.880, meaning higher dividends tend to increase MPS. Gross Domestic Product (GDP) is negatively associated with MPS, with a statistically

significant negative effect ( $p$ -value = 0.031), suggesting that an increase in GDP tends to decrease MPS. On the other hand, Return on Equity (ROE) and Leverage (LEV) are not statistically significant, with  $p$ -values of 0.112 and 0.475, respectively, meaning they do not significantly contribute to the model. Inflation (INF) also has a high  $p$ -value (0.660), suggesting it does not influence MPS significantly.

### Analysis of Determinants of Price to Book

**Table 16**

#### *Model Summary of P/BR*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.495a	.245	.190	1.474709	.245	4.483	6	83	.001

a. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

Table 16 presents the Model Summary for the Multiple Regression analysis of Price-to-Book Ratio (P/BR). The model's correlation ( $R = 0.495$ ) indicates a moderate relationship between the independent variables (Inflation, ROE, DPS, GDP, Leverage, and EPS) and the dependent variable (P/BR). The R Square value of 0.245 suggests that about 24.5% of the variation in P/BR is explained by the model's predictors, which is relatively low. The Adjusted R Square of 0.190 takes into account the number of predictors and is lower, indicating that not all included variables contribute significantly to explaining P/BR. The Standard Error of the Estimate is approximately 1.475, indicating the average distance between observed and predicted values. Furthermore, the F Change statistic of 4.483 with a significance level of 0.001 shows that the overall model is statistically significant, meaning that the combination of predictors has a meaningful relationship with the dependent variable, despite the moderate explanatory power.

**Table 17**

#### *ANOVA analysis of P/BR*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.491	6	9.748	4.483	.001b
	Residual	180.506	83	2.175		
	Total	238.997	89			

a. Dependent Variable: P/BR

b. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

Table 17 shows that the ANOVA analysis of the Price-to-Book Ratio (P/BR) in Table 11 shows that the regression model is statistically significant, with an F-value of 4.483 and a  $p$ -value of 0.001, which is less than the 0.05 significance level. This indicates that the independent variables (Inflation, ROE, DPS, GDP, Leverage, and EPS) collectively have a significant impact on P/BR. The sum of squares for the

regression model is 58.491, explaining a portion of the variation in P/BR, while the residual error accounts for 180.506. The model's ability to explain variation is supported by the significant F-statistic, affirming the relevance of the predictors in determining the P/BR.

**Table 18**

*Coefficients of P/BR*

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	2.586	1.323		1.955	.054
	ROE	.038	.032	.129	1.191	.237
	EPS	.018	.013	.173	1.426	.158
	DPS	.006	.012	.065	.552	.582
	LEV	.029	.082	.037	.356	.723
	GDP	.003	.054	.006	.058	.954
	INF	-.469	.152	-.340	-3.088	.003

a. Dependent Variable: P/BR

Table 18 presents the Coefficients for the Price to Book Ratio (P/BR) model, showing the relationships between P/BR and various predictors. The constant coefficient is 2.586, with a marginally significant p-value of 0.054, suggesting that while it is close to statistical significance, it may not contribute strongly in a practical sense. Among the predictors, Return on Equity (ROE) has a positive but non-significant effect on P/BR with a p-value of 0.237, indicating it does not have a meaningful influence. Earnings Per Share (EPS) shows a positive but non-significant relationship with a p-value of 0.158, implying EPS does not strongly affect P/BR either. Dividend Per Share (DPS) and Leverage (LEV) also show non-significant relationships, with p-values of 0.582 and 0.723, respectively, suggesting no substantial influence on P/BR. Gross Domestic Product (GDP) has a very weak and non-significant effect with a p-value of 0.954, indicating GDP does not contribute to explaining P/BR. However, Inflation (INF) has a negative and statistically significant effect on P/BR (p-value = 0.003), meaning that as inflation increases, the price-to-book ratio tends to decrease.

#### 4.2 Discussion

The coefficients in the Market Price to Book Ratio (MPS) and Price to Book Ratio (P/BR) models provide insights into the impact of financial and macroeconomic factors on valuation metrics. Key findings from your models are compared and contextualized with the literature reviewed:

The descriptive statistics for MPS and P/BR reflect significant variability, which aligns with the findings in this study is consistent with Prasai et al. (2024), who found

that high-return banks such as Prabhu Bank showed increased volatility. This indicates a positive relationship between the variation in stock prices and firm performance, confirming that stocks with high returns tend to experience greater fluctuations. In contrast, firms with more stable performance, like Nabil and NMB banks in Prasai et al. (2024), align with the moderate volatility seen in P/BR, reflecting less fluctuation in their market valuation.

The positive correlation between MPS and profitability measures such as EPS and DPS, and the negative correlation with inflation and leverage, comparing with Thapa (2022), who indicated fluctuating returns for Nepalese commercial banks linked to earnings and dividends. The negative correlation with inflation and leverage also corresponds to the general trend of economic challenges affecting stock prices, as seen in studies by Chong & Xu (2020) and Thapa (2023). The negative correlation between P/BR and inflation emphasizes market sensitivity to economic conditions, reinforcing the broader understanding of inflation's adverse effect on market valuation.

The regression results showing that profitability measures like EPS and DPS positively influence MPS are consistent with Prasai et al. (2024), who found that macroeconomic uncertainties dampen stock prices. The relationship between inflation and P/BR suggests that external economic factors significantly impact stock valuation, similar to the findings in Zhang & Xie (2023) and Kozak & Wang (2020), where external factors were found to be dynamic influencers on the risk-return relationship.

The beta coefficients for MPS highlight the strong positive impact of EPS and DPS, supporting the argument that financial performance directly influences stock prices. This finding aligns with along with the negative beta for GDP, is in line with Thapa (2022), who found that systematic risk (beta) showed a positive correlation with market movements in Nepalese banks. The negative beta for inflation found in this study confirms the adverse influence of inflation on market valuation, aligning with global studies (Fama & French, 2022; Malkiel & Fama, 2023), where beta is key for assessing market risk.

## CHAPTER V

### SUMMARY AND CONCLUSION

#### 5.1 Summary

This study aims to examine the factors influencing the stock prices of Nepalese commercial banks, with specific focus on understanding the relationship between various financial and economic indicators, such as Earnings per Share (EPS), Price-to-Earnings (P/E) Ratio, Dividend per Share (DPS), Debt-to-Equity Ratio (DER), Return on Equity (ROE), GDP Growth, Inflation, and Price-to-Book Ratio (P/BR), and their impact on the Market Price per Share (MPS).

The Nepalese banking sector, an essential part of the country's economy, plays a critical role in financial stability and growth. Stock price movements in commercial banks are influenced by numerous internal and external factors. These factors include financial indicators such as EPS, P/E ratio, DPS, DER, and ROE, which reflect the profitability and financial health of the banks, alongside macroeconomic variables like GDP growth and inflation that affect investor sentiment. The market price per share (MPS) of banks often fluctuates due to a combination of these determinants, making it vital to understand their individual and collective impact on stock prices.

Literature review with previous studies indicate that profitability metrics, such as EPS and ROE, have a strong positive relationship with MPS. A higher EPS generally suggests better profitability, which can lead to an increase in stock prices. Similarly, the P/E ratio, which is a reflection of market expectations of future earnings, often correlates with stock price movements.

The study employs a quantitative approach to assess the impact of the selected determinants on stock prices of commercial banks in Nepal. Data for a sample of banks is collected from their annual reports, financial statements, and relevant economic indicators over a specific period. Descriptive statistics, correlation analysis, and regression models are utilized to evaluate the relationships between the independent variables (EPS, P/E ratio, DPS, DER, ROE, GDP Growth, and Inflation) and the dependent variables (MPS and P/BR). This methodology allows for an in-depth understanding of how these variables influence the stock prices of commercial banks in Nepal.

The findings of EPS, ROE, and DPS have a significant positive impact on MPS, confirming the importance of profitability in driving stock prices. The P/E ratio also shows a positive relationship with stock prices, indicating that investor expectations of future earnings contribute to higher stock valuations. The Debt-to-Equity Ratio (DER) was found to have a negative influence on MPS, suggesting that higher debt levels may signal financial risk, which can lead to a decrease in stock prices. The regression analysis indicates that GDP growth positively influences stock prices, while inflation exerts a negative effect, confirming that macroeconomic factors play a crucial role in determining stock prices. The P/BR ratio is similarly impacted by profitability metrics, with higher EPS and ROE correlating with a higher P/BR, signaling greater investor confidence in the bank's financial health.

The analysis of key financial metrics across banks highlights notable variations in market performance, profitability, and financial stability. Banks like SCB showed strong market performance, reflected in high market prices per share and price-to-book ratios, though with higher volatility. In contrast, banks like NMB and GIME exhibited more stability in stock prices and profitability measures such as ROE and EPS, though at lower levels compared to others. NABIL consistently demonstrated strong profitability, with stable earnings and high dividends, whereas other banks, like SCB and EBL, experienced fluctuations in these areas. Regarding leverage, banks like NMB and PCBL showed higher variability in debt-to-equity ratios, with PCBL being more conservative in its debt approach, while HBL displayed a higher average leverage ratio, indicating more reliance on debt. Overall, the data underscores the differences in performance across banks, with some showing strong but volatile performance, while others maintain more stability at lower levels of profitability and market valuation.

The study provides valuable insights into the determinants of stock prices in Nepalese commercial banks, highlighting the significant roles of profitability, market expectations, and macroeconomic factors such as GDP and inflation. These findings emphasize the need for investors to consider both financial performance and broader economic conditions when making investment decisions in the Nepalese banking sector.

## 5.2 Conclusion

The analysis of financial and economic indicators for Nepalese banks from 2014 to 2023 reveals significant insights into their performance, stability, and market valuation. Variability in market prices per share across banks highlights differences in investor confidence and market perceptions, with SCB and NABIL leading in terms of average share prices but showing high volatility. The Price-to-Book ratio analysis underscores the disparity in market valuations, with some banks consistently overvalued relative to their book values, while others remain undervalued, reflecting diverse investor sentiments and economic conditions.

Profitability, as measured by Return on Equity (ROE) and Earnings per Share (EPS), indicates that NABIL has been a consistent leader in performance, while other banks such as NMB and GIME maintained stability but at lower levels. Variability in these indicators suggests differences in management efficiency, profitability strategies, and operational resilience. Similarly, dividend payout trends reflect diverse strategies among banks, with some maintaining stability and others exhibiting significant fluctuations, indicating varied approaches to rewarding shareholders.

The analysis reveals significant differences in financial performance and stability among the banks studied. While some banks, such as SCB and NABIL, demonstrated strong market performance, high profitability, and robust shareholder returns, others like NMB and GIME exhibited greater stability with lower but more consistent financial metrics. The fluctuations in key indicators, such as market price per share, price-to-book ratios, and earnings per share, reflect varying investor perceptions and market conditions across the banks. Additionally, the differing approaches to leverage, with banks like HBL showing higher debt reliance and others like PCBL maintaining a more conservative stance, highlight contrasting strategies in managing financial risk. Overall, the findings suggest that while high performance can lead to greater returns, it is often accompanied by increased volatility, whereas stability might come at the cost of lower profitability. The diverse financial strategies and outcomes underline the importance of understanding each bank's unique approach to risk, profitability, and market positioning.

### 5.3 Implications

The implications are as follows:

- i. The variability in profitability indicators such as ROE and EPS underscores the importance of efficient financial and operational strategies. Banks with inconsistent performance should evaluate their management practices, operational efficiency, and risk management frameworks to improve stability and profitability. Strategic cost management and diversification of revenue streams can also enhance financial resilience.
- ii. The wide disparities in market prices per share and Price-to-Book ratios suggest the need for better communication of financial health and long-term strategies to investors. Banks should enhance transparency and improve investor relations to align market valuations with intrinsic values. Consistent dividend policies can also help boost investor confidence and attract long-term investments.
- iii. The significant variations in Debt-to-Equity ratios across banks highlight the need for tailored capital structure strategies. Banks should strike a balance between leveraging debt to fund growth and maintaining equity to ensure financial stability. Regulators might consider setting benchmarks or providing guidance to promote optimal leverage practices in the banking sector.
- iv. The impact of macroeconomic factors, including GDP fluctuations, inflation, regulators should strengthen frameworks for stress testing and scenario analysis to ensure banking sector resilience during economic downturns. Banks should also focus on building robust contingency plans to mitigate the adverse effects of economic volatility.
- v. The findings reveal varying levels of volatility in performance metrics across banks. This highlights the need for more sophisticated risk management tools and techniques, especially in the context of Nepal's economic uncertainties. Adopting advanced technologies and data analytics can help banks better predict and manage risks, particularly credit and operational risks.
- vi. Given the banking sector's critical role in Nepal's economic development, the government and central bank should work collaboratively with financial institutions to foster a stable and growth-oriented financial environment. Policies that encourage investment in technology, digital banking, and

financial literacy programs can enhance overall economic resilience and inclusivity.

- vii. The significant correlations observed between financial ratios (e.g., Capital Adequacy Ratio, Non-Performing Loan Ratio, Bank Size) and performance indicators (e.g., ROA, ROE) suggest that these variables play a crucial role in determining bank profitability. Banks should focus on maintaining optimal levels of capital adequacy and reducing non-performing loans to enhance their financial performance.
- viii. The regression analysis highlights the impact of key risk variables like the Non-Performing Loan Ratio and Cash Reserve Ratio on profitability. This underscores the importance of effective credit risk management and liquidity planning. Implementing stringent credit appraisal mechanisms and diversifying loan portfolios can mitigate risks and stabilize performance metrics.
- ix. Bank size showed mixed correlations with profitability, suggesting that larger banks may benefit from economies of scale, while smaller banks may struggle with operational inefficiencies. Banks should leverage their size strategically by investing in technology and human capital to improve efficiency and achieve better returns.

The findings highlight areas for further study, such as the impact of digitalization, market sentiment, or regulatory changes on stock price dynamics, helping expand the scope of knowledge in Nepal's financial market.

- i. Future research could benefit from analyzing a more extended dataset, potentially incorporating data beyond 2023. This would allow researchers to explore long-term trends and identify emerging patterns that may not be fully captured within the current period, enhancing the robustness of the findings.
- ii. Expanding the sample size to include more banks would provide a more comprehensive understanding of the banking sector's performance. A larger sample would also improve the generalizability of the findings, ensuring that the results are not biased by the financial performance of only a limited number of institutions.

- iii. The study could be enhanced by incorporating additional profitability indicators, such as Net Interest Margin (NIM) and Return on Assets (ROA), to provide a more detailed picture of the financial health of the banks. This would help researchers better understand how these indicators interact and impact overall performance.
- iv. Future studies could utilize more advanced econometric techniques such as panel data analysis or structural equation modeling (SEM) to account for complex relationships among profitability, market performance, and other financial variables. This would help refine the conclusions and provide a deeper understanding of the determinants of bank profitability.

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### Appendix

Year	Bank Name	MPS	P/BR	ROE	EPS	DPS	LEV	GDP	INF
2014	Nabil	2535	3.278689	32.78	83.68	65	9.98	6	4.24
2015	Nabil	1910	2.833333	27.97	57.24	36.84	9.74	4	5.3
2016	Nabil	2344	5.308594	22.73	59.27	45	10.18	0.4	4.91
2017	Nabil	1523	3.206226	25.61	59.86	48	10.51	9	4.2
2018	Nabil	921	2.339844	26.65	49.51	34	11.21	.47.6	4.64
2019	Nabil	800	5.410359	20.94	50.57	34	11.7	6.7	6.15
2020	Nabil	765	2.727549	17.76	36.16	35.26	11.81	-2.1	3.6
2021	Nabil	1359	0.002219	13.61	33.57	38	11.4	4	6.32
2022	Nabil	824	0	15.19	18.64	30	10.67	5.8	7.28
2023	Nabil	599	0	9.78	23.67	11	10.76	4.9	6.54
2014	NMB	515	2.498114	13.54	20.5	21.05	10.42	6	4.24
2015	NMB	507	2.413944	13.32	25.05	8.42	9.91	4	5.3
2016	NMB	810	2.0288	8.94	27.78	20	8.84	0.4	4.91
2017	NMB	545	1.442467	12.08	26.88	15.79	9.34	9	4.2
2018	NMB	358	1.506064	12.95	28.67	30	12.39	.47.6	4.64
2019	NMB	382	3.028092	13.32	18.79	35	14.78	6.7	6.15
2020	NMB	397	1.025591	8.94	11.18	16.2	13.11	-2.1	3.6
2021	NMB	440	0.002182	12.08	14.76	15.8	13	4	6.32
2022	NMB	261	0	12.95	17.92	8.25	11.42	5.8	7.28
2023	NMB	226	0	11.65	17.55	0	10.36	4.9	6.54
2014	EBL	2631	0.179593	13.2	86.04	12	9.3	6	4.24
2015	EBL	2120	0.232743	13.7	78.04	30	9.4	4	5.3
2016	EBL	3385	0.368982	15.9	40.33	70	10	0.4	4.91
2017	EBL	1353	2.00842	15.6	32.48	33	10	9	4.2
2018	EBL	663	2.56419	16	32.78	0	13	.47.6	4.64
2019	EBL	666	5.701068	16.05	38.05	5	13	6.7	6.15
2020	EBL	675	3.867859	17.54	29.71	5	12	-2.1	3.6
2021	EBL	738	0.002975	18.59	19.91	6	12	4	6.32
2022	EBL	439	0	20.64	26.3	13	11	5.8	7.28
2023	EBL	563	0	22.75	31.43	10	11	4.9	6.54
2014	HBL	941	2.814603	9.56	33.1	21.05	9.59	6	4.24
2015	HBL	813	2.843452	9.9	33.37	42.11	10.2	4	5.3
2016	HBL	1500	2.777778	10.2	43.03	31.58	11.2	0.4	4.91
2017	HBL	886	1.593778	10.48	35.15	26.32	11	9	4.2
2018	HBL	551	1.133905	11.25	23.11	15.79	13.5	.47.6	4.64
2019	HBL	552	3.597622	20.17	32.44	22	13.5	6.7	6.15
2020	HBL	540	1.990123	17.06	27.6	20	13.4	-2.1	3.6
2021	HBL	484	0.003209	24.53	28.07	26	12.2	4	6.32
2022	HBL	299.2	0	21.58	18.26	19.11	12.4	5.8	7.28
2023	HBL	212.8	0	20.17	9.18	0	11	4.9	6.54
2014	SCB	2799	2.544776	26.27	65.47	51.5	9	6	4.24
2015	SCB	1943	2.179054	21.69	57.38	44.21	9	4	5.3
2016	SCB	3600	3.390805	17.18	45.96	35.09	9.5	0.4	4.91
2017	SCB	2295	2.129032	11.98	35.49	105.26	9.4	9	4.2

Year	Bank Name	MPS	P/BR	ROE	EPS	DPS	LEV	GDP	INF
2018	SCB	755	2.804233	18.66	27.33	17.5	11	.47.6	4.64
2019	SCB	682	7.531746	19.49	30.39	22.5	11	6.7	6.15
2020	SCB	645	5.396721	15.15	24.81	11.84	12	-2.1	3.6
2021	SCB	590	0.003401	9.44	23.92	13.06	12	4	6.32
2022	SCB	396	0	14.21	23.92	16.51	11	5.8	7.28
2023	SCB	530	0	20.78	36.75	19	10	4.9	6.54
2014	GIME	640	1.754491	14	19.57	1	9	6	4.24
2015	GIME	479	1.466258	16	15.58	3	9	4	5.3
2016	GIME	515	2.705521	13	19.33	10	9.5	0.4	4.91
2017	GIME	388	1.682353	15.88	25.51	14	9.4	9	4.2
2018	GIME	290	1.256757	19.33	23.64	12.75	11	.47.6	4.64
2019	GIME	293	1.946632	16.19	23.47	16	11	6.7	6.15
2020	GIME	239	0.755077	18.47	17.99	10	12	-2.1	3.6
2021	GIME	441	0.002034	12.88	19.25	16	12	4	6.32
2022	GIME	286	0	13.53	20.84	23	11	5.8	7.28
2023	GIME	186	0	13.93	22.06	21	10	4.9	6.54
2014	SBL	810	1.539653	19.82	38.63	23.16	10.01	6	4.24
2015	SBL	678	1.764636	20.54	37.77	21.05	9.52	4	5.3
2016	SBL	869	3.113225	20.3	41.53	48.75	9.54	0.4	4.91
2017	SBL	485	1.791713	19.93	26.6	14	13.05	9	4.2
2018	SBL	300	1.546724	20.02	26.45	13.16	11.58	.47.6	4.64
2019	SBL	318	2.587962	14.71	23.07	10	11.58	6.7	6.15
2020	SBL	296	1.205923	13	19.55	12	11.39	-2.1	3.6
2021	SBL	504	0.002403	8.92	22.79	14.25	11.77	4	6.32
2022	SBL	303	0	11.04	20.6	12.5	11.11	5.8	7.28
2023	SBL	253	0	11.17	22.48	0	12.15	4.9	6.54
2014	KBL	536	1.782609	21.25	18.17	33	9.15	6	4.24
2015	KBL	380	1.248322	20.69	18.69	11	9.62	4	5.3
2016	KBL	345	2.866667	2.67	16.24	21	9.17	0.4	4.91
2017	KBL	327	1.232689	21.96	26.53	12.75	9.79	9	4.2
2018	KBL	250	1.307743	16.49	11.83	0.16	12.4	.47.6	4.64
2019	KBL	246	2.149567	13.54	15.77	15	11.3	6.7	6.15
2020	KBL	186	0.697021	13.32	10.75	10.27	11	-2.1	3.6
2021	KBL	387	0.002497	8.94	12.9	8	10.3	4	6.32
2022	KBL	210.9	0	12.08	15.01	3.3663	9.49	5.8	7.28
2023	KBL	184	0	12.95	9.86	0	9.05	4.9	6.54
2014	PCBL	195	1.96791	32.78	20.97	16	-0.6	6	4.24
2015	PCBL	265	2.822473	27.91	23.74	27	2.92	4	5.3
2016	PCBL	479	5.346904	22.73	30.11	17.25	6.32	0.4	4.91
2017	PCBL	255	3.163237	16.5	23.21	18.95	9.01	9	4.2
2018	PCBL	278	3.971931	16.84	21.49	20	13.4	.47.6	4.64
2019	PCBL	287	2.662905	12.09	23.6	0	9.52	6.7	6.15
2020	PCBL	421	1.085771	22.73	16.1	4	9.54	-2.1	3.6
2021	PCBL	746	0.002831	19.26	20.32	16	13.1	4	6.32
2022	PCBL	455	0	18.43	14.94	15	11.6	5.8	7.28

Year	Bank Name	MPS	P/BR	ROE	EPS	DPS	LEV	GDP	INF
2023	PCBL	583	0	18.92	5.3	16	11.5	4.9	6.54
2014	MBL	576	1.910551	20.87	18.34	12.63	8.51	6	4.24
2015	MBL	564	1.768062	20.67	22.2	16.84	4.46	4	5.3
2016	MBL	680	2.994478	21.26	25.04	21.84	9.59	0.4	4.91
2017	MBL	360	1.820919	24.51	24	15	9.86	9	4.2
2018	MBL	209	1.692465	19.87	15.81	10	9.7	.47.6	4.64
2019	MBL	264	2.634624	16.67	21.07	16	10.8	6.7	6.15
2020	MBL	220	1.106275	17.67	14.96	10.4	9	-2.1	3.6
2021	MBL	385	0.00265	19.98	17.76	14	8.4	4	6.32
2022	MBL	254	0	12.01	16.44	0	9.1	5.8	7.28
2023	MBL	231.8	0	8.94	15.85	14	11	4.9	6.54

## Descriptives

### Notes

Output Created	28-NOV-2024 17:23:44	
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Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax	DESCRIPTIVES VARIABLES=MPS PBR ROE EPS DPS LEV GDP INF /STATISTICS=MEAN STDDEV MIN MAX.	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.04

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MPS	100	184.0	3600.0	716.007	694.6126
P/BR	100	.0000000000000000	7.531746031746032	1.680745957235970	1.581177439831882
ROE	100	2.6700000000000000	32.7800000000000000	16.796999999999993	5.420021711537267
EPS	100	5.3000000000000000	86.0400000000000000	27.847599999999986	15.145783633030865
DPS	100	.0000000000000000	105.2600000000000000	19.8311630000000004	16.208964374233872
LEV	100	-.6000000000000000	14.7800000000000000	10.4772000000000003	2.073199391561680
GDP	90	-2	9	4.30	3.175
INF	100	3.6000000000000000	7.2800000000000000	5.3180000000000001	1.147195086136863
Valid N (listwise)	90				

## Correlations

## Correlations

		ROE	EPS	DPS	LEV	GDP	INF	MPS	P/BR
ROE	Pearson Correlation	1	.339**	.228*	-.337**	.087	-.185	.187	.252*
	Sig. (2-tailed)		.001	.022	.001	.415	.066	.062	.011
	N	100	100	100	100	90	100	100	100
EPS	Pearson Correlation	.339**	1	.569**	-.081	.084	-.240*	.785**	.331**
	Sig. (2-tailed)	.001		.000	.420	.430	.016	.000	.001
	N	100	100	100	100	90	100	100	100
DPS	Pearson Correlation	.228*	.569**	1	-.081	.066	-.209*	.695**	.260**
	Sig. (2-tailed)	.022	.000		.422	.536	.037	.000	.009
	N	100	100	100	100	90	100	100	100
LEV	Pearson Correlation	-.337**	-.081	-.081	1	-.056	.152	-.090	-.069
	Sig. (2-tailed)	.001	.420	.422		.603	.130	.373	.498
	N	100	100	100	100	90	100	100	100
GDP	Pearson Correlation	.087	.084	.066	-.056	1	.325**	-.052	-.076
	Sig. (2-tailed)	.415	.430	.536	.603		.002	.625	.475
	N	90	90	90	90	90	90	90	90
INF	Pearson Correlation	-.185	-.240*	-.209*	.152	.325**	1	-.225*	-.412**
	Sig. (2-tailed)	.066	.016	.037	.130	.002		.024	.000
	N	100	100	100	100	90	100	100	100
MPS	Pearson Correlation	.187	.785**	.695**	-.090	-.052	-.225*	1	.204*
	Sig. (2-tailed)	.062	.000	.000	.373	.625	.024		.042
	N	100	100	100	100	90	100	100	100
P/BR	Pearson Correlation	.252*	.331**	.260**	-.069	-.076	-.412**	.204*	1
	Sig. (2-tailed)	.011	.001	.009	.498	.475	.000	.042	
	N	100	100	100	100	90	100	100	100

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

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

## Regression

## Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.863 <sup>a</sup>	.745	.726	378.1049	.745	40.341	6	83	.000

a. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34603619.688	6	5767269.948	40.341	.000 <sup>b</sup>
	Residual	11865952.281	83	142963.280		
	Total	46469571.969	89			

a. Dependent Variable: MPS

b. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.595	339.182		.034	.973
	ROE	-13.182	8.208	-.101	-1.606	.112
	EPS	28.603	3.263	.619	8.765	.000
	DPS	16.880	2.949	.389	5.725	.000
	LEV	-15.029	20.929	-.043	-.718	.475
	GDP	-30.233	13.763	-.133	-2.197	.031
	INF	17.195	38.956	.028	.441	.660

a. Dependent Variable: MPS

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Sig. F Change
					R Square Change	F Change	df1	df2	
1	.495 <sup>a</sup>	.245	.190	1.474709628559459	.245	4.483	6	83	.001

a. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.491	6	9.748	4.483	.001 <sup>b</sup>
	Residual	180.506	83	2.175		
	Total	238.997	89			

a. Dependent Variable: P/BR

b. Predictors: (Constant), INF, ROE, DPS, GDP, LEV, EPS

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
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		B	Std. Error	Beta		
1	(Constant)	2.586	1.323		1.955	.054
	ROE	.038	.032	.129	1.191	.237
	EPS	.018	.013	.173	1.426	.158
	DPS	.006	.012	.065	.552	.582
	LEV	.029	.082	.037	.356	.723
	GDP	.003	.054	.006	.058	.954
	INF	-.469	.152	-.340	-3.088	.003

a. Dependent Variable: P/BR

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i Abstract This study explores the determinants influencing the common stock prices of commercial banks in Nepal, emphasizing both bank-specific financial metrics and macroeconomic variables. Key financial indicators such as Market Price per Share (MPS), Price-to-Book Ratio (P/BR), Return on Equity (ROE), Earnings Per Share (EPS), Dividend Per Share (DPS), and leverage (LEV) are examined for their impact on stock price movements. Additionally, external macroeconomic factors like Gross Domestic Product (GDP) growth and inflation (INF) are assessed for their role in shaping market dynamics. The analysis reveals that profitability measures like ROE and EPS significantly enhance stock valuations, reflecting investor confidence in a bank's financial health. DPS and P/BR further influence investor decisions by indicating shareholder returns and market perceptions of a bank's intrinsic value. Leverage, representing financial risk, is a critical factor, with excessive debt levels potentially deterring investor interest. Macroeconomic variables like GDP and inflation are found to impact stock prices indirectly, reflecting the broader economic environment's influence on banking sector performance. The findings highlight the need for strategic financial management within banks and suggest that policy interventions can stabilize the stock market. Investors, regulators, and bank management can benefit from understanding these determinants, ensuring informed decision-making and fostering a more efficient financial ecosystem. This study contributes to the growing body of knowledge on Nepal's financial market, offering a framework for evaluating

CHAPTER I INTRODUCTION 1.1 Background of the Study The stock market serves as a critical mechanism for mobilizing savings and allocating resources toward productive economic activities, ultimately fostering economic growth. In Nepal, commercial banks dominate the Nepal Stock Exchange (NEPSE) in terms of trading volume and market capitalization, making their common stocks an attractive investment option. Investors often prioritize bank stocks due to their perceived stability and regular dividends (Shrestha &