

STOCK MARKET DEVELOPMENT AND ECONOMIC GROWTH IN NEPAL

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By

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**Stock Market Development and Economic Growth in Nepal**”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

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

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REPORT OF RESEARCH COMMITTEE

Ms. Sajana Sigdel has defended research proposal entitled “**Stock Market Development and Economic Growth in Nepal**” successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per the suggestions and guidance of supervisor Dr. Pitri Raj Adhikari and submit the thesis for evaluation and viva voce examination.

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APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled “**Stock Market Development and Economic Growth in Nepal**” presented by Ms. Sajana Sigdel for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the dissertation is worthy of acceptance.

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ABBREVIATIONS

ADRL	:	Autoregressive Distributed Lag
CBS	:	Central Bureau of Statistics
FY	:	Fiscal Year
GCF	:	Gross Capital Formation
GDP	:	Gross Domestic Product
GNS	:	Gross National Savings
IMF	:	International Monetary Fund
INF	:	Inflation Rate
IR	:	Interest Rate
MC	:	Market Capitalization
NEPSE	:	Nepal Stock Exchange
NRB	:	Nepal Rastra Bank
R ²	:	Coefficient of Determination
SPSS	:	Statistical Package for the Social Sciences
TR	:	Tax Rate
TT	:	Trading Turnover
TU	:	Tribhuvan University
WB	:	World Bank

ABSTRACT

This study explores the impact of stock market development and macroeconomic variables on Nepal's economic growth with three main objectives: to assess situation of key financial indicators, to examine their relationships with GDP growth and to evaluate their effects on economic performance. A descriptive and causal-comparative design have been used based on secondary data from 2009/10 to 2023/24 selected through purposive sampling from sources such as Nepal Rastra Bank, NEPSE, CBS, Ministry of Finance, the World Bank and IMF. Independent variables have been included Market Capitalization, Trading Turnover, NEPSE Index, Gross Capital Formation and Gross National Savings while GDP growth is the dependent variable. Analysis was conducted in SPSS using descriptive and Inferential statistics including correlation and regression tools. Descriptive results have showed high variability in Market Capitalization, Turnover, and NEPSE Index, while Capital Formation and Savings were stable. Correlation analysis has found significant strong and moderate positive links between GDP growth with Capital Formation and Savings, respectively. Market Capitalization showed a significant moderate negative correlation, while Turnover and NEPSE Index have very weak and insignificant relationship with GDP growth. Regression analysis has confirmed Market Capitalization has a significant negative effect and Gross National Savings had a significant positive effect on GDP growth. NEPSE Index had a weak, slightly positive effect and Turnover and Capital Formation have insignificant effect on GDP growth. The model's explanatory power was high ($R^2 = 0.826$) with significant ANOVA ($F = 8.574$, $p = 0.003$), confirming the joint influence of selected variables. In conclusion, macroeconomic factors like savings positively influence growth, while stock market development indicators have not played a supportive role, suggesting the need for reforms to enhance the market's contribution to economic development.

Keywords: *GDP Growth, Market Capitalization, Trading Turnover, NEPSE Index, Gross Capital Formation, Gross National Savings.*

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Stock market development has been widely recognized as an essential pillar in promoting economic growth. It facilitates the efficient mobilization and allocation of capital, encourages savings, promotes investment, and enhances corporate governance. Many recent researchers argue that stock markets play a vital role in strengthening the financial system by improving liquidity, spreading risk, and facilitating price discovery (Ranjit, 2021; Bayar et al., 2014; Azam et al., 2016).

In developing economies, a growing stock market has the potential to significantly influence GDP growth by connecting investors with firms that require capital. The positive experiences of capital markets in emerging economies have encouraged developing nations to focus on capital market reforms and institutional strengthening (Regmi, 2012; Pokharel, 2020). Akram and Akram (2024) emphasized that stock market development reduces capital costs, enhances visibility, and supports firm-level productivity, which collectively benefits the overall economy.

Empirical studies have validated the long-run relationship between stock market performance and economic growth. Bista (2017) demonstrated that market capitalization significantly contributes to Nepal's GDP growth in the long run. Similarly, Baral (2019) found that secondary market size and liquidity positively influence the country's ability to mobilize capital and distribute investment risk. In a comparative regional context, Herath (2020) found that in Sri Lanka, turnover ratios affect GDP in the short run, while market capitalization influences it in the long run, highlighting the importance of both liquidity and market size.

The findings of Bayar et al. (2014) in Turkey also align with the above, showing that market capitalization and turnover ratios positively affect GDP, confirming the long-run co-integration between financial development and economic growth. Azam et al. (2016), studying four Asian economies such as Bangladesh, India, China, and

Singapore concluded that stock market development significantly correlates with GDP, FDI, and inflation across all countries analyzed.

Several studies have also highlighted the indirect contributions of stock market development. Ranjit (2021) pointed out that improved stock listings, growth in transaction volume, and the availability of new financial instruments can enhance capital market efficiency and promote macroeconomic stability. Similarly, Pradhan et al. (2014) stated that deeper financial markets improve resource allocation and cut transaction costs, promoting innovation and investment, while Nguyen and Bui (2019) stressed their role in reducing information asymmetry and drawing foreign capital.

The NEPSE, Nepal's only stock exchange, has experienced notable growth over the past decade. As of 2024, market capitalization has exceeded NPR 4 trillion, indicating growing investor confidence and increased access to finance for listed companies (Ranjit, 2021). Despite this progress, the market continues to suffer from structural inefficiencies including political volatility and inconsistent regulation. The NEPSE index, which peaked at over 3,200 in 2021, now fluctuates around 2,000 points, largely due to tightened liquidity and conservative monetary policy.

Trading turnover in Nepal has remained relatively steady, reflecting continued investor participation. Nonetheless, the market lacks adequate financial instruments and suffers from low institutional participation, limiting its depth and resilience (Baral, 2019). With GDP growth averaging 5% in recent years supported by sectors such as tourism, infrastructure, and remittances macro fundamentals remain moderately strong. However, inflationary pressures, high import reliance, and falling foreign reserves pose major threats to sustained economic growth (Nepal Rastra Bank, 2023).

Gross Capital Formation (GCF) has shown a moderate upward trend, driven by government investment in energy, roads, and agriculture. Stock markets can play a crucial complementary role by channeling household and institutional savings into these investment domains. Herath (2020) confirmed that capital market expansion contributes directly to GCF and subsequently to economic growth. Similarly, Akram and Akram (2024) observed that capital formation, along with market capitalization and investment indicators, exerts a statistically significant impact on GDP in Pakistan.

Gross National Savings (GNS) in Nepal has increased, largely due to steady remittance inflows, which comprise nearly 25% of the GDP. However, the conversion of these savings into productive capital remains constrained by underdeveloped financial channels and limited investor awareness (Pokharel, 2020). The need for stronger institutional mechanisms to absorb and utilize these funds effectively has been highlighted across multiple studies (Nguyen & Bui, 2019; Ranjit, 2021).

Corporate governance, too, benefits from stock market development. As companies become publicly listed, they are required to meet disclosure norms and undergo regulatory scrutiny, which enhances transparency and builds investor trust (Pradhan et al., 2014). Akram and Akram (2024) asserted that capital markets serve as economic barometers that reflect business sentiment and macroeconomic stability, particularly through secondary trading and efficient price signals.

Despite these positive effects, Nepal's stock market still faces challenges including weak regulatory enforcement, lack of diversified investment products, limited institutional investor base, and poor integration with global financial markets. These issues mirror findings from similar economies, such as Nigeria and Pakistan, where market underperformance has stemmed from structural inefficiencies and policy inconsistencies (Azam et al., 2016; Akram & Akram, 2024).

Given this backdrop, it is imperative to study the impact of stock market development on economic growth in Nepal using comprehensive indicators such as Market Capitalization, Trading Turnover, NEPSE Index, Gross Capital Formation, and Gross National Savings. These indicators serve as critical metrics of both market performance and the financial system's contribution to national development.

The aim of the present study is to examine the current scenario, relationship, and impact of stock market development on economic growth in Nepal. Specifically, it seeks to assess the influence of Market Capitalization, Trading Turnover, NEPSE Index, Gross Capital Formation and Gross National Savings on GDP growth. Through this, the study aspires to generate evidence-based insights that can inform financial policy, strengthen market institutions, and foster sustainable economic development in Nepal.

1.2 Problem Statement

The relationship between stock market development and economic growth has garnered considerable attention among economists and policymakers over the past few decades (Levine & Zervos, 1998; Beck & Levine, 2004). A well-functioning stock market is widely believed to mobilize domestic savings, facilitate efficient capital allocation, and ultimately enhance economic development (Bencivenga et al., 1996; Adjasi & Biekpe, 2006). However, empirical evidence on this issue remains mixed, especially in developing economies such as Nepal, where the financial market is still evolving and lacks depth and maturity (Baral, 2019; Chalise, 2020).

Several studies have explored the linkage between stock market indicators and economic growth, presenting contrasting findings. Akkutay (2024) examined the impact of stock market development on economic growth in Turkey using the ARDL model for the period 2006–2023 and reported a negative short-run effect and no long-run relationship, indicating an underdeveloped financial system. In contrast, Akram and Akram (2024) analyzed data from Pakistan (1977–2020) and found that stock market performance, investments, and military regimes positively influenced GDP growth, although the study did not consider critical macroeconomic indicators such as gross capital formation and gross national savings.

In the Nepalese context, Bhattarai et al. (2024) investigated the influence of stock market development on GDP per capita growth from 1994 to 2019 using the ARDL approach, identifying a long-run causality. However, their analysis omitted essential variables such as trading turnover, gross national savings, and the comprehensive NEPSE index. A more extensive analysis was undertaken by Dhungana (2023), who used Johansen Cointegration and VAR techniques to evaluate the effect of market capitalization, trading turnover, NEPSE index, gross capital formation, and savings on GDP from 1995 to 2022, revealing long-run cointegration and unidirectional causality. Nevertheless, this study did not disaggregate the individual contributions of these indicators nor assess their current trends in the Nepalese economy.

Regional and cross-country studies further complicate the narrative. Research by Zulkifli et al. (2024), Tan (2022), and Wickramasinghe et al. (2023) used panel datasets that lack the granularity required for country-specific policy insights. In Nepal, earlier

works such as Baral (2019) and Chalise (2020) adopted basic regression and descriptive methods without addressing causality or dynamic interactions among key financial and macroeconomic variables. Sharma (2019) found a negative impact of market capitalization on GDP growth but a positive effect from the NEPSE index and number of listed companies, though the study was correlational in nature. Similarly, Ranjit (2021) applied ARDL and co-integration models to analyze multiple stock market indicators but did not isolate the roles of gross capital formation and savings.

The existing literature reveals several critical gaps. First, few studies have jointly analyzed the impact of market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings on GDP growth within an integrated framework, particularly in Nepal. Second, limited attention has been paid to assessing the current status of these variables in the Nepalese economy. Third, while some studies have explored long-run associations, insufficient emphasis has been placed on distinguishing between short-run and long-run effects or identifying causal relationships among these variables.

To address these gaps, the present study focuses explicitly on Nepal and aims to investigate the collective and individual impacts of selected stock market development indicators and macroeconomic variables on GDP growth. This research contributes significantly to the broader discourse on financial development by offering contextualized evidence from an emerging economy and is expected to provide valuable insights for academics, investors, policymakers, and other relevant stakeholders involved in economic planning.

Accordingly, the study seeks to answer the following research questions:

- i. What is the situation of market capitalization, trading turnover, NEPSE index, gross capital formation, gross national savings and GDP growth in Nepal?
- ii. Is there a relationship between market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings with GDP growth in Nepal?
- iii. How do market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings effect on GDP growth in Nepal?

1.3 Objectives of the Study

The main objective of this study is to survey on stock market development and economic growth in Nepal. To achieve this main objective and address research questions following are specific objectives:

- i. To assess the situation of market capitalization, trading turnover, NEPSE index, gross capital formation, gross national savings and GDP growth in Nepal.
- ii. To examine the relationship between market capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings with GDP growth in Nepal.
- iii. To analyze the effect of market capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings on GDP growth in Nepal.

1.4 Hypotheses

In this study, hypotheses have been developed by researcher which are as follows:

H₁: There is significant impact of market capitalization on GDP growth in Nepal.

H₂: There is significant impact of trading turnover on GDP growth in Nepal.

H₃: There is significant impact of NEPSE index on GDP growth in Nepal.

H₄: There is significant impact of gross capital formation on GDP growth in Nepal.

H₅: There is significant impact of gross national savings on GDP growth in Nepal.

1.5 Rationale of the Study

The stock market plays a crucial role in channeling domestic savings into productive investments, thereby contributing to economic growth. In Nepal, where the financial system is still developing, understanding the relationship between stock market development and GDP growth is vital for informed policymaking and economic planning. This study is timely and significant as it provides updated empirical evidence on how stock market indicators such as market capitalization, trading turnover, and the NEPSE index, along with macroeconomic variables like gross capital formation and gross national savings, influence economic growth. It addresses existing research gaps by integrating both market-specific and macroeconomic factors within a unified framework. The findings are expected to aid policymakers in designing effective financial reforms, guide investors in interpreting capital market trends, and offer practical insights for financial institutions, educators, and researchers interested in the dynamics of emerging economies like Nepal.

1.6 Limitations of the Study

This study has following limitations.

- i. The study is based solely on secondary data, which may be affected by reporting errors or inconsistencies across different sources.
- ii. The analysis is confined to the period from 2009/10 to 2023/24, which may not reflect longer-term patterns or capture the effects of the most recent developments.
- iii. Only a limited set of variables such as market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings have been included, possibly omitting other important determinants of GDP growth.
- iv. Although regression analysis is used, the study may not fully establish causation due to potential issues like omitted variables or reverse causality.
- v. The findings are specific to Nepal's context and may not be applicable to other countries with different economic and market structures.

CHAPTER II

LITERATURE REVIEW

This chapter has involved examining research studies related to the “Stock Market Development and Economic Growth in Nepal,” establishing a knowledge foundation by highlighting current literature on this topic. It provides a comprehensive analysis of existing work in the field. This chapter has been organized into two key sections: the theoretical review, which discusses the theories and frameworks that explain the relationship between stock market development and economic growth, and the empirical review, which summarizes and evaluates findings from research studies conducted in previous years. In particular, empirical studies from 2019 to 2024 have been observed, highlighting their key findings on the influence of stock market indicators on economic growth. The further details of these two sections have been described below:

2.1 Theoretical Review

The theoretical review has explored theories related to the stock market development and economic growth focusing on how stock market indicators such as market capitalization, trading turnover, NEPSE Index, gross capital formation and gross national savings influence GDP growth and overall economic stability. It has examined some important theories that provide relevant insights for the current study and its variables. Some theories include:

Financial Development Theory

The Financial Development Theory was developed by Raymond W. Goldsmith in 1969, and it posits that the development of a country’s financial system, particularly its capital markets, plays a crucial role in fostering economic growth. The theory assumes that a well-developed financial system facilitates the mobilization of savings and promotes investments, which ultimately leads to economic growth. Levine (1997) and King and Levine (1993) tested this theory in various countries, finding that financial development is strongly correlated with economic growth.

Relevance to Current Study: The theory is highly relevant to this study as it links financial market development (including stock market indicators such as Market

Capitalization and Trading Turnover) with GDP growth. The assumptions of the theory highlight the role of stock markets in channeling savings into investments, which directly relates to how variables like the NEPSE Index and Gross National Savings affect Nepal's economic growth. By understanding the development of Nepal's stock market and its role in economic growth, the study can explore how well-developed financial systems can positively impact GDP growth, making the theory particularly valuable in explaining the relationship between market development and economic progress in Nepal.

Stock Market Liquidity Theory

The Stock Market Liquidity Theory was proposed by Amihud and Mendelson in 1986. The theory suggests that a liquid stock market, characterized by a high volume of transactions and the ease of buying and selling securities, significantly impacts a country's economic growth. The theory assumes that liquidity reduces the cost of capital, encourages investment, and thus accelerates economic growth. Levine and Zervos (1998) tested this theory in emerging markets and found that liquidity in stock markets has a positive impact on economic performance.

Relevance to Current Study: This theory is directly applicable to the variables in the current study, especially Trading Turnover and the NEPSE Index, as these are key indicators of market liquidity. The theory suggests that as the liquidity in Nepal's stock market increases, it could lead to more investment, driving economic growth, which ties into the analysis of Nepal's GDP growth.

Endogenous Growth Theory

The Endogenous Growth Theory, developed by Paul Romer in 1990, argues that economic growth is primarily driven by internal factors such as human capital, innovation, and investments, rather than external factors. The theory assumes that investments in capital, research and development, and education lead to technological progress, which in turn boosts productivity and economic growth. Barro and Sala-i-Martin (1995) applied and tested the theory, finding that internal factors like education and capital formation significantly contribute to long-term growth.

Relevance to Current Study: This theory is relevant to the study as it emphasizes the importance of investment (represented by Gross Capital Formation) in driving

economic growth. The theory connects well with the study's variables, as increased stock market development (through market capitalization and the NEPSE Index) can facilitate greater investment in the economy, driving sustained growth.

Capital Market Efficiency Theory

The Capital Market Efficiency Theory, developed by Eugene Fama in 1970, states that financial markets are "efficient" when all available information is reflected in stock prices, and thus no investor can consistently outperform the market. The key assumption of this theory is that stock markets allocate resources efficiently, contributing to economic growth. Fama's Efficient Market Hypothesis (EMH) has been tested extensively, with Jensen (1978) and others applying it to different market conditions and finding that more efficient markets promote better economic performance.

Relevance to Current Study: This theory is pertinent to the study as it highlights the role of the NEPSE Index in reflecting the efficiency of Nepal's stock market. If the market efficiently prices stocks, it can better allocate resources, thus fostering economic growth. The relevance of the NEPSE Index to GDP growth can be analyzed through this theory by understanding how efficient market operations in Nepal affect investment and economic development.

Macroeconomic Stability Theory

The Macroeconomic Stability Theory, developed by Milton Friedman in 1953, posits that stable macroeconomic conditions, including stable inflation, low interest rates, and predictable government policies, are crucial for fostering economic growth. This theory assumes that economic stability encourages investment and helps maintain a positive environment for growth. Arestis and Sawyer (2004) tested this theory and found that macroeconomic stability is a key determinant of long-term economic performance, particularly in developing economies.

Relevance to Current Study: This theory is relevant to the study as it connects with Gross National Savings and Gross Capital Formation, which are influenced by macroeconomic stability. By examining how stable economic conditions in Nepal, supported by stock market development, contribute to GDP growth, this theory can provide insights into the broader impact of financial stability on economic performance.

2.2 Empirical Review

Akkutay (2024) investigated the impact of stock market development on economic growth in Turkey using ARDL analysis. The objective of the study was to examine the effects of stock market development on economic growth in Turkey. The study utilized quarterly data from 2006 to 2023 and applied the ARDL method for analysis. The independent variable was stock market development, while the dependent variable was economic growth. The findings revealed that stock market development had a negative and considerable short-term effect, but no long-term detrimental impact on economic growth. The study concluded that for the stock market to positively impact Turkey's economic growth, the country's financial system must be modernized.

Akram and Akram (2024) explored the impact of stock market development on the economic growth of Pakistan. The objective of the study was to analyze the role of stock market development in Pakistan's economic growth. The methodology used involved time series data from 1977 to 2020, applying the autoregressive distributed lag (ARDL) co-integration technique. The independent variables were stock market performance, investments, existence of a military regime, and population growth, while the dependent variable was economic growth. The findings revealed that stock market performance, investments, and the presence of a military regime had a positive and significant impact on economic growth in Pakistan, whereas population growth had a negative relationship with economic growth.

Bhattarai et al. (2024) assessed the stock market development and economic growth: Empirical evidence from Nepal. The objective of the study was to examine the relationship between stock market development and economic growth in Nepal. The methodology was based on annual time series data from 1994 to 2019 and employed the autoregressive distributed lag (ARDL) model with bound testing procedures. The independent variables included stock market development indicators such as market capitalization as a percentage of GDP, total value of shares traded as a percentage of GDP, and total shares traded as a percentage of market capitalization, which were later aggregated into a single index due to high correlations, while the dependent variable was real GDP per capita growth. The findings revealed a long-run unidirectional causality from the stock market development index to economic growth, with stock market size and liquidity significantly contributing to capital mobilization and risk

diversification. The control variable, inflation, had no significant effect on the primary variables under examination.

Olawale (2024) investigated the impact of capital market performance on economic growth in Nigeria. The objective of the study was to examine the relationship between capital market indicators and economic growth, measured by real GDP. The study utilized data from 1981 to 2019, sourced from the Nigerian Stock Exchange, Securities and Exchange Commission, and Central Bank of Nigeria. A multiple regression model was developed, with market capitalization, all share index, value of transactions, and number of listed securities as independent variables, and real GDP as the dependent variable. The ordinary least squares technique was employed, with various statistical tests used for analysis. The findings revealed that market capitalization and the all share index were significant predictors of economic growth in the long run, explaining 97.9% of the variation in GDP.

Thaddeus et al. (2024) researched stock market development and its relationship with economic growth in sub-Saharan Africa from 1990 to 2020. The objective of the study was to explore the short and long run causal relationship between stock market development and economic growth. The study used panel data from 1990 to 2020, obtained from the World Bank development indicators, and applied the autoregressive distributed lag (ARDL) model along with Granger causality and cointegration tests for analysis. The independent variables were stock market capitalization and liquidity (measured by the total value of shares traded and turnover ratio), while the dependent variable was economic growth. The findings revealed that stock market capitalization had a positive and significant effect on economic growth in the long run but a negative and insignificant effect in the short run. Stock market liquidity, on the other hand, had a negative and significant effect on economic growth during the study period. The Granger causality test showed inconclusive results, meaning the direction of causality between stock market development and economic growth could not be definitively determined.

Zulkifli et al. (2024) assessed the impact of stock market development on economic growth in Malaysia. The objective of the study was to examine the relationship between stock market development (SMD) and economic growth, particularly focusing on

Malaysia's response during the 2008 global recession and the COVID-19 pandemic. The methodology used involved analyzing data from 1981 to 2020, applying the Granger causality test and the ARDL method, with the Endogenous Growth theory as the framework. The independent variables were Market Capitalization (MCAP), Exchange Rate (EXC), and Trade Openness (TRADE), while the dependent variable was Gross Domestic Product (GDP). The findings of the ARDL long-run test assessed that SMD and TRADE have a positive but statistically insignificant relationship with GDP, while EXC had a negative and statistically significant relationship with GDP. The Granger causality test revealed a bidirectional relationship between EXC, TRADE, and GDP, while a unidirectional causality was found from GDP to SMD. The study suggested that the government should enhance market regulation, boost investor confidence, and promote trade openness to support economic growth.

Chikwira and Mohammed (2023) explored the impact of the stock market on liquidity and economic growth in a volatile market. The objective of the study was to assess whether stock market impacts are communicated in an economically unstable environment, marked by volatility, high inflation, and political instability. The study used a time series Vector Autoregressive (VAR) model with quarterly data from 2013 to 2022. The independent variables included stock market development and liquidity, while the dependent variable was economic growth. The findings revealed a positive statistically significant relationship between the stock market and economic growth at the 10% significance level, but stock market liquidity had no major influence on economic development.

Dhungana (2023) investigated the title Stock market development and economic growth of Nepal. The objective of the study was to examine the relationship between stock market development and economic growth in Nepal. The methodology was based on secondary data from 1995 to 2022, collected from the Quarterly Economic Bulletin of Nepal Rastra Bank, and econometric methods such as the Johansen cointegration test, Granger causality test, and VAR model were used. The independent variables were stock market development indicators including market capitalisation, trading turnover, NEPSE index, gross capital formation, and gross national savings, while the dependent variable was economic growth. The findings showed a long-term cointegration between stock market development indicators and economic growth, and the Granger causality

test revealed a unidirectional causal relationship from stock market development to economic growth, concluding that stock market development significantly influenced economic growth both in the short and long run.

Wickramasinghe et al. (2023) observed the stock market-economic growth nexus in Asian stock markets. The objective of the study was to examine the relationship between stock market development and economic growth, focusing on the direction of causality. The study used secondary data from the World Development Indicators of the World Bank, covering the period from 1990 to 2020. The methodology employed Generalized Method of Moments (GMM) Dynamic Panel analysis, along with panel unit root and cointegration tests. The independent variable was stock market development, while the dependent variable was economic growth. The findings observed a positive relationship between stock market development and economic growth, with reverse causality from economic growth to stock market development, confirming bi-directional causality. The study supported both the Finance-Led Growth and Growth-Led Finance hypotheses.

Ferreira et al. (2022) measured the impact of stock market development on economic growth in Africa. The objective of the study was to assess the relationship between stock market development and economic growth using annual data from a panel of 9 African countries over the period of 1992 to 2017. The methodology used was the Panel Vector Autoregressive econometrics technique. The independent variables measured were stock market development, investment, human capital, openness, inflation, and government expenditure, while economic growth served as the dependent variable. The findings revealed that stock market development positively influenced economic growth, with investment, human capital, and openness also contributing positively. In contrast, inflation and government expenditure had a negative effect on economic growth. The study also found that economic growth responded to the stock market for 8 years before returning to its initial level.

Nongnit et al. (2022) studied on the dynamic linkage between stock market development and economic growth in Thailand, particularly during the global financial crisis. The study aimed to explore the relationship between stock market development and economic growth in Thailand from 1991 to 2020. The methodology employed was

the Autoregressive Distributed Lag (ARDL) approach. The variables considered were stock market turnover ratio, stock price index, stock market total value exchanged, and inflation rate as independent variables, with economic growth as the dependent variable. The findings showed both negative and positive causality in stock market development in relation to short- and long-term economic growth dynamics. Furthermore, economic growth was found to be the sole cause of and negatively associated with liquidity in both the short- and long-term periods.

Tan (2022) examined at the relationship between stock market and economic growth in Malaysia. The objective of the study was to determine the long-run relationship and short-run causality between stock market development and economic growth. The methodology used included the Unit Root Test, Johansen Juselius Cointegration Test, Vector Error Correction Model (VECM), and Granger Causality Test. The variables were market capitalization and stock turnover ratio as independent variables, and gross domestic product (GDP) as the dependent variable. The finding was that there is a long-run equilibrium relationship between market capitalization, stock turnover ratio, and economic growth, with a bilateral causal relationship between the stock market and GDP.

Wahba et al. (2022) looked at the effect of stock market development on economic growth in Egypt. The objective of the study was to investigate the empirical relationship between stock market development and economic growth during the period from 2009 to 2019, which was marked by significant economic and political events. The methodology used included secondary data from the World Bank, International Financial Statistics (IFS), the Egyptian Ministry of Planning, and the Central Bank of Egypt, applying both qualitative and quantitative approaches. The quantitative part employed the ARDL model to assess the relationship. The variables were stock market indicators (such as turnover ratio) and macroeconomic variables as independent, and economic growth as the dependent variable. The findings were that there was no short-run relationship between stock market development and economic growth, a negative long-run relationship (only for turnover ratio), and other factors, such as higher primary education enrollment, were the main triggers for economic growth in Egypt.

Algaeed (2021) analyzed the title Capital market development and economic growth: an ARDL approach for Saudi Arabia, 1985–2018. The objective of the study was to test the effects of capital market development on per-capita GDP growth in Saudi Arabia. The methodology was based on a log-linear eclectic model using time series data from 1985 to 2018, and econometric techniques including ARDL, FMOLS, Johansen cointegration, and Granger causality tests were employed. The independent variables included stock market indicators such as share price index, capitalization, liquidity, number of share transactions, and number of shares traded, while the dependent variable was per-capita GDP growth. The findings revealed that capitalization and liquidity had negative effects, which contradicted many previous studies, while share price index, number of shares traded, and share transactions showed expected positive signs. The Granger causality test indicated that share price index, market capitalization, and number of shares traded did not granger cause per-capita GDP, although they were significant at the 5 percent level, raising concerns about the depth and effectiveness of the capital market in fostering economic growth in Saudi Arabia.

Ranjit (2021) conducted a study titled Contribution of Stock Market Development on Economic Growth of Nepal. The objective of the study was to analyze the contribution of stock market development on the economic growth of Nepal. Quantitative analysis and a deductive method were used, utilizing secondary data from 1994 to 2021. The ARDL model, co-integration test, bound test, CUSUM, and CUSUMQ test were applied for data analysis. Variables were broad money supply, market capitalization, stock market turnover, NEPSE index, and listed companies as independent variables, and real gross domestic product as the dependent variable. The finding was that broad money supply, market capitalization, and NEPSE index had a significant contribution to real GDP, while stock market turnover showed a weak contribution, indicating a liquidity issue in Nepal's stock market.

Vaidya (2021) explored the Relationship between stock market and economic development: A study on Nepal Stock Exchange Limited. The objective of the study was to examine the macroeconomic determinants of banking sector development in Nepal. The methodology was based on balanced panel data from 2006 to 2018, and the dynamic generalized method of moments (GMM) estimation technique was applied to capture the dynamic nature of the data and address endogeneity issues. The independent

variables were remittance, foreign direct investment, trade openness, inflation, GDP, and stock market capitalization, while the dependent variable was banking sector development. The findings indicated that GDP and banking sector development had a significant positive relationship, remittance and foreign direct investment positively and significantly contributed to banking sector development, trade openness had a negative but insignificant impact, and inflation showed a marginal negative effect. Stock market capitalization was found to have a positive and significant impact on banking sector development, highlighting the importance of economic growth policies to support the banking sector in Nepal.

Chalise (2020) examined the growth of the capital market in Nepal, focusing on its impact on capitalization, GDP, and the NEPSE index. The objective of the study was to analyze the existing status of the capital market in terms of its composition and to examine the impact of capital mobilization on Gross Domestic Product (GDP), as well as the contribution of the capital market to financial resources and GDP. The study period covered the years from 2000/01 to 2018/19, using secondary data analyzed through descriptive research design and regression analysis. The independent variables included market capitalization and share transactions, while the dependent variables were GDP and the NEPSE index. The findings revealed that ordinary shares in the primary capital market and market capitalization in the secondary market made a significant contribution to the capital market in Nepal. Additionally, there was a significant and positive impact of capital mobilization on GDP and of the number of share transactions on the NEPSE index. The study concluded that the capital market plays a crucial role in financial resource mobilization and contributes significantly to Nepal's GDP, while emphasizing the need for modernization and systematization of the capital market through optimal efforts from concerned stakeholders.

Herath (2020) observed the impact of stock market development on the economic growth of Sri Lanka from 1990 to 2019. The objective of the study was to estimate the effect of stock market performance on economic growth. The methodology used secondary data, primarily from the Colombo Stock Exchange and the Central Bank of Sri Lanka, and applied an Ordinary Least Squares (OLS) regression model. The variables were turnover ratio (TR) and market capitalization ratio (MCR) as independent variables, and GDP as the dependent variable. The findings revealed that

turnover ratio positively influenced GDP without any time lag, while market capitalization ratio positively influenced GDP with a time lag. The study highlighted the significant impact of stock market liquidity and size on economic growth.

Khan (2020) analyzed the impact of stock market performance on economic growth in India, highlighting the crucial role of the stock market in supporting the country's economic development. The objective of the study was to examine the link between stock market activities and GDP growth, using a theoretical framework to understand the mechanisms at play. The methodology used was a simple theoretical literature framework, with stock market performance as the independent variable and economic growth (GDP) as the dependent variable. The findings revealed a positive relationship between stock market performance and economic growth, both in the short run and long run. The study underscores the importance of stock markets in enhancing capital mobilization, reducing the cost of capital, and boosting overall economic growth in developing countries like India.

Osakwe et al. (2020) examined the stock market capitalization and economic growth of Nigeria and South Africa from 2000 to 2018. The objective of the study was to compare the impact of stock market capitalization on economic growth in both countries. The methodology used time series OLS regression to analyze the data. The variables were market capitalization ratio to GDP as an independent variable and economic growth as the dependent variable. The findings showed that the relationship between market capitalization ratio to GDP and economic growth was positive for South Africa but insignificant for Nigeria. The study concluded that while the size of the capital markets in both countries positively correlated with economic growth, South Africa's capital market had a better contribution to economic growth compared to Nigeria. The study recommended increasing the size of the markets in both countries by expanding the number of financial instruments available to investors to improve liquidity.

Umar and Shittu (2020) evaluated the impact of stock market performance on economic growth in Nigeria from 1985 to 2018. The objective was to analyze the relationship between stock market performance and economic growth using the theoretical framework of the Harrod-Domar model. The study used secondary data and applied methodologies including the Augmented Dickey-Fuller unit root test, Johansen co-

integration analysis, and vector error correction mechanism. The independent variables were market capitalization, equity, and value traded, while GDP served as the dependent variable. The findings showed a positive, long-run relationship between stock market performance and economic growth in Nigeria during the study period.

Baral (2019) assessed the effects of stock market development on economic growth in Nepal. The objective of the study was to assess the relationship between stock market development and economic growth during the period from 2007 to 2017. Analytical research design using a simple regression model was used. Variables were size and liquidity of the stock market as independent variables and capital GDP at constant prices as the dependent variable. The finding was a significant positive relationship between stock market development and economic growth, with stock market size explaining 57.7 percent and liquidity explaining 41.6 percent of the variation in economic growth.

Sharma (2019) surveyed on a study on relationship between stock market and economic growth in Nepal. The objective of the study was to empirically investigate the relationship between stock market development and economic growth in Nepal over a period of 19 years, from 2000/01 to 2018/19. The methodology involved secondary data collected from the Economic Bulletin of Nepal Rastra Bank and the Economic Survey of the Ministry of Finance, and the study employed a descriptive and correlational research design. The independent variables included stock market capitalization, number of transactions, number of listed companies, and the NEPSE index, while the dependent variable was real GDP, used as a proxy for economic growth. The findings surveyed showed that the number of transactions, NEPSE index, and number of listed companies positively influenced real GDP, while market capitalization negatively influenced real GDP. The study concluded that there is a significant relationship between the stock market and economic growth in Nepal, indicating the importance of a developed capital market in contributing to economic growth. However, the study also suggested the need for policy measures to promote further economic growth.

Table 1*Summary of Empirical Review*

Author(s)	Variables	Methodology	Major Findings
Akkutay (2024)	Dependent: Economic Growth Independent: Stock Market Development	ARDL (2006-2023)	Negative short-run effect, no long-run impact; financial system needs modernization.
Akram and Akram (2024)	Dependent: Economic Growth Independent: Stock Market Performance, Investments, Military Regime, Population Growth	ARDL (1977-2020)	Positive impact from stock market, investment, and military regime; negative from population growth.
Bhattarai et al. (2024)	Dependent: GDP per capita Growth Independent: Stock Market Development Index	ARDL (1994-2019)	Long-run causality from stock market to growth; inflation had no significant effect.
Olawale (2024)	Dependent: Real GDP Independent: Market Cap, All Share Index, Transactions, Listed Securities	OLS Regression (1981-2019)	Market cap and index significant; explained 97.9% of GDP variation.
Thaddeus et al. (2024)	Dependent: Economic Growth Independent: Stock Market Capitalization, Liquidity	Panel ARDL, Granger Causality (1990-2020)	Long-run positive from capitalization; liquidity had negative effect; causality inconclusive.

Zulkifli et al. (2024)	Dependent: GDP Independent: MCAP, Exchange Rate, Trade Openness	ARDL, Granger Causality (1981-2020)	MCAP & Trade positive but insignificant; EXC negative; unidirectional causality GDP → SMD.
Chikwira and Mohammed (2023)	Dependent: Economic Growth Independent: Stock Market Development, Liquidity	VAR Model (2013-2022, Volatile market)	Stock market significant at 10% level; liquidity had no impact.
Dhungana (2023)	Dependent: Economic Growth Independent: MCAP, Turnover, NEPSE Index, Capital Formation, Savings	Johansen Cointegration, Granger, VAR (1995-2022)	Long-run cointegration; unidirectional causality from market to growth.
Wickramasinghe et al. (2023)	Dependent: Economic Growth Independent: Stock Market Development	GMM Panel, Cointegration (1990–2020)	Bi-directional causality; supports Finance-Led & Growth-Led theories.
Ferreira et al. (2022)	Dependent: Economic Growth Independent: SMD, Investment, Human Capital, Openness, Inflation, Govt. Spending	Panel VAR (1992-2017)	Positive from SMD, investment, human capital; negative from inflation, govt. spending.
Nongnit et al. (2022)	Dependent: Economic Growth Independent: Turnover Ratio, Stock Index, Value Traded, Inflation	ARDL (1991-2020)	Mixed short & long-run results; negative link with liquidity.

Tan (2022)	Dependent: GDP Independent: Market Cap, Turnover Ratio	VECM, Granger, Cointegration	Long-run equilibrium; bi-directional causality.
Wahba et al. (2022)	Dependent: Economic Growth Independent: Turnover Ratio, Macro Variables	ARDL (2009-2019)	No short-run effect; turnover had negative long-run impact; education more influential.
Algaeed (2021)	Dependent: Per-capita GDP growth Independent: Share price index, capitalization, liquidity, number of share transactions, number of shares traded	Log-linear model, ARDL, FMOLS, Johansen cointegration, Granger causality (1985-2018)	Capitalization & liquidity had negative effects; others had positive signs; Granger causality showed no causal link.
Ranjit (2021)	Dependent: Real GDP Independent: Broad money supply, market capitalization, stock turnover, NEPSE index, listed companies	ARDL, co-integration, bound test, CUSUM & CUSUMQ (1994-2021)	Broad money, market cap, NEPSE index significant; turnover weak contribution.
Vaidya (2021)	Dependent: Banking sector development Independent: RMT, FDI, TO, INF, GDP, market capitalization	Dynamic GMM (2006-2018)	GDP, remittance, FDI, and market cap positively significant; trade openness & inflation negative.
Chalise (2020)	Dependent: GDP, NEPSE index Independent: Market capitalization, share transactions	Descriptive and regression (2000/01-2018/19)	Capital mobilization positively impacts GDP and NEPSE; need for modernization.

Herath (2020)	Dependent: GDP Independent: Turnover ratio, market capitalization ratio	OLS regression (1990-2019)	Turnover ratio immediate positive impact; market cap delayed positive effect.
Khan (2020)	Dependent: GDP Independent: Stock market performance	Theoretical framework	Stock market performance positively related to GDP in short & long term.
Osakwe et al. (2020)	Dependent: Economic growth Independent: Market capitalization to GDP	OLS regression (2000-2018)	Positive link in South Africa; insignificant in Nigeria.
Umar and Shittu (2020)	Dependent: GDP Independent: Market cap, equity, value traded	ADF test, Johansen cointegration, VECM (1985-2018)	Positive long-run relationship between market and GDP.
Baral (2019)	Dependent: Capital GDP Independent: Stock market size, liquidity	Simple regression (2007-2017)	Size explains 57.7%, liquidity 41.6% of GDP growth variation.
Sharma (2019)	Dependent: Real GDP Independent: Market cap, NEPSE index, listed companies, transactions	Descriptive and correlation Analysis (2000/01-2018/19)	Transactions, NEPSE, listed companies positive; market cap negative effect.

2.3 Research Gap

Previous studies on stock market development and economic growth predominantly used time-series techniques such as ARDL, VAR and VECM (Akkutay, 2024; Akram & Akram, 2024; Bhattarai et al., 2024; Tan, 2022) or panel data approaches like GMM and panel VAR (Ferreira et al., 2022; Wickramasinghe et al., 2023) focused on long-run relationships using variables such as market capitalization, turnover ratio and stock

market indices. These studies generally relied on secondary data from international or regional sources, while those based on Nepal (Ranjit, 2021; Sharma, 2019; Dhungana, 2023) covered shorter timeframes, included fewer variables, and applied conventional regression models. Most prior research also emphasized theoretical trends and historical performance without reflecting recent economic dynamics or incorporating broader financial indicators such as gross capital formation and gross national savings. In contrast, the current study has employed a descriptive and causal comparative research design has utilized a national dataset spanning from 2004/05 to 2023/24 and has applied both descriptive and inferential statistical methods including correlation and regression analysis. It has also included a wider range of stock market development indicators including capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings as independent variables with GDP growth as the dependent variable. Therefore, the current research has successfully addressed the gaps in research design, population sample, nature of data, analytical methods, and variable selection that previous studies had overlooked.

CHAPTER III

RESEARCH METHODOLOGY

The research methodology section of a research report outlines the methods, tools and techniques that have been applied to analyze data and compile the report. It involves a systematic investigation aimed at uncovering new insights and determining the most suitable research approach. In this study, the following methodology has been adopted to achieve the main and specific objectives of the study on stock market development and economic growth in Nepal.

3.1 Research Design

This study has employed both descriptive and causal comparative research designs to explore the stock market development and economic growth in Nepal. The descriptive design has been used to assess the situation of stock market indicators focusing on independent variables such as market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings with GDP growth as the dependent variable. The causal comparative design has examined the relationships between these independent variables with GDP growth in Nepal. This methodology has facilitated a comprehensive evaluation of how stock market development and financial factors have influenced economic growth. By integrating both descriptive and causal comparative methods, this study has provided valuable insights into the role of stock market development in shaping economic growth in Nepal.

3.2 Population, Sampling, and Sampling Design

The population for this study has included the complete economic data and stock price information available on websites in Nepal. The sample has been drawn from the fiscal years 2009/10 to 2023/24, covering a period of twenty years. A purposive sampling design has been employed to select relevant data for analysis. The independent variables in this study are market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings, with GDP growth as the dependent variable. The purposive sampling technique has ensured that the sample accurately represents the factors influencing economic growth in Nepal, allowing for a thorough

examination of the relationships between these variables and their impact on GDP growth.

3.3 Nature and Sources of Data, and Instrument of Data Collection

This study has utilized secondary data, sourced from various entities, including annual reports, financial statements, and official documents. The data has been collected from websites of the Nepal Rastra Bank (NRB), Nepal Stock Exchange (NEPSE), Central Bureau of Statistics (CBS), Ministry of Finance (MOF), World Bank (WB) and International Monetary Fund (IMF). Additionally, information from economic journals, newspapers, and other relevant publications has been reviewed. These sources have provided the necessary data to assess the impact of stock market development, including market capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings on GDP growth in Nepal. The instrument of data collection has primarily involved the review and analysis of these secondary data sources.

3.4 Method of Analysis

The method of analysis refers to the techniques used to interpret data, such as descriptive statistics and inferential statistics. This study has assessed the impact of stock market development on economic growth in Nepal, focusing on market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings as independent variables, with GDP growth as the dependent variable. SPSS Version 29 has been used for both descriptive and inferential statistics. Descriptive statistics have summarized the minimum, maximum, mean, and standard deviation of the collected data. Inferential statistics have involved correlation and regression analysis, where correlation analysis has explored relationships between the independent variables and GDP growth. Regression analysis has assessed the impact of these independent variables on GDP growth to determine their significance and predictive power. The tools for analysis include:

I. Descriptive Statistics

Descriptive statistics have been used to analyze the key variables in this study on the impact of stock market development on economic growth in Nepal. The independent variables include market capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings while GDP growth is the dependent variable. The

analysis has provided insights into the minimum, maximum, mean, and standard deviation of these variables, helping to understand their distribution and variability. This has laid the foundation for examining how these variables influence GDP growth in Nepal. The following are the findings from the descriptive statistics:

Arithmetic Mean

The arithmetic mean, often referred to simply as the average, is a statistical measure used to summarize a dataset by identifying its central tendency. To calculate the arithmetic mean, one sums all the individual values in a dataset and divides this sum by the total number of values present. This gives a single value that represents the typical or central value of the data. The arithmetic mean is a valuable tool for understanding the overall trend or pattern within a dataset, particularly when the data is relatively evenly distributed. However, its main limitation is that it is sensitive to outlier's values that are significantly higher or lower than the rest of the data points. These outliers can skew the mean, making it less representative of the majority of the data. Despite this, the arithmetic mean remains a widely used and reliable measure, especially in large datasets where the impact of outliers is diluted. It is commonly used in various fields, including economics, social sciences, and business, to summarize data and inform decision-making processes. In cases where outliers are a concern, alternative measures like the median or mode might be used for a more accurate representation of the dataset. The formula for the arithmetic mean is as follows:

$$\text{Arithmetic mean } (\bar{x}) = \frac{\sum X}{N}$$

Where,

N = Total number of values in the dataset

$\sum X$ = Sum of all values in the dataset

Standard Deviation

Standard deviation is a statistical measure that quantifies the amount of variation or dispersion in a dataset. It tells us how spread out the data points are from the mean, providing insight into the consistency or variability of the data. A smaller standard deviation indicates that the data points tend to be closer to the mean, suggesting that there is little variability or fluctuation in the dataset. In contrast, a larger standard

deviation signifies that the data points are more spread out, indicating a higher degree of variation or inconsistency. This measure is crucial in various fields such as finance, research, and quality control, as it helps assess risk, stability, and the reliability of data. For example, in finance, a low standard deviation in stock prices suggests less volatility and more predictability, while a high standard deviation indicates greater market risk and unpredictability. In research, understanding the standard deviation can help researchers assess the precision and reliability of their measurements. By examining the standard deviation, analysts and decision-makers can better understand trends, identify patterns, and make more informed decisions based on the degree of variation within the data.

The formula for the Standard deviation is as follows:

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N-1}}$$

Where,

X Represents each individual data point in the dataset

\bar{X} Represents the mean (average) of the dataset

N is the total number of data points in the dataset

II. Inferential Statistics

Inferential statistics have included correlation analysis and regression analysis. Correlation analysis has examined the relationships between market capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings with GDP growth. Regression analysis has analyzed the impact of these variables on GDP growth. The key findings are as follows:

Correlation Analysis

Correlation analysis measures the strength and direction of relationships between variables. A positive correlation indicates that as one variable increases, the other increases as well, while a negative correlation means that as one variable increases, the other decreases. The correlation coefficient (r) ranges from +1 (perfect positive correlation) to -1 (perfect negative correlation), with 0 indicating no relationship. This method is useful for identifying patterns in the data, but it does not establish causation. In this study, correlation analysis has been applied to assess the relationships between

market capitalization, trading turnover, NEPSE Index, gross capital formation and gross national savings with GDP growth.

The Pearson correlation coefficient (r) is calculated using the formula:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2]} \sqrt{[n(\sum Y^2) - (\sum Y)^2]}}$$

Where;

n = the number of data pairs

$\sum XY$ = the sum of the product of each pair of scores

$\sum X$ And $\sum Y$ = the sums of X and Y scores respectively

Regression Analysis

Regression analysis quantifies the impact of independent variables on a dependent variable, measuring the strength and significance of these effects. By using regression coefficients (β), it shows how much the dependent variable changes for each unit increase in an independent variable, while holding other factors constant. A positive coefficient indicates a direct relationship, and a negative coefficient suggests an inverse relationship. This technique is widely used in economics, finance, and social sciences for impact assessment, trend analysis, and policy evaluation.

Model Specification

In this model, the dependent variable is GDP, influenced by the independent variables market capitalization, trading turnover, NEPSE Index, gross capital formation and gross national savings. The model is represented as:

$$GDP = \beta_0 + \beta_1 MC + \beta_2 TT + \beta_3 NI + \beta_4 GCF + \beta_5 GNS + \epsilon_{it}$$

Where;

β_0 = Intercept/ Constant Term

GDP = Gross Domestic Product

MC = Market Capitalization

TT = Trading Turnover

NI = NEPSE Index

GCF = Gross Capital Formation

GNS = Gross National Savings

ϵ_{it} = Error term of the stochastic model

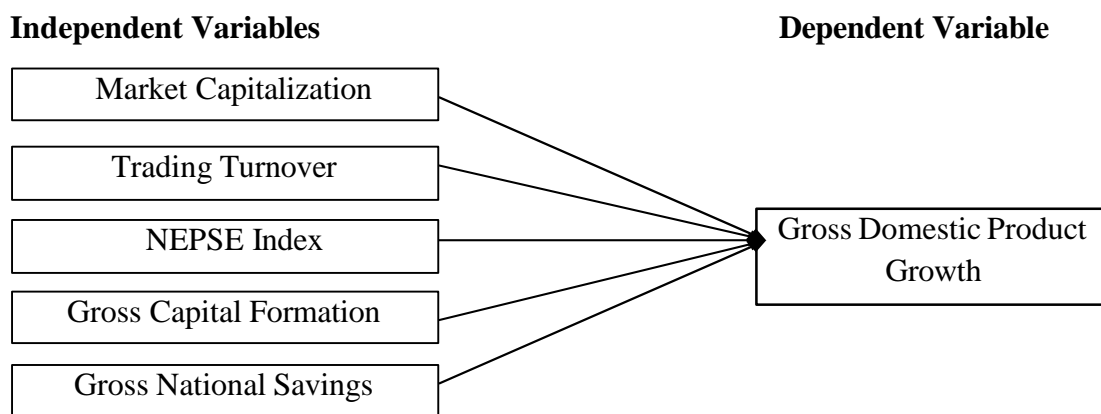
Betas ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$) are the parameters of the model

3.5 Research Framework and Definition of Variables

In the research framework of this study on “Stock Market Development and Economic Growth in Nepal,” the independent variables include market capitalization, trading turnover, NEPSE index, gross capital formation and gross national savings which influence GDP growth. The dependent variable is GDP growth, reflecting how these factors contribute to economic development. This framework provides a structured approach to exploring the relationships between stock market development and economic growth in Nepal. By focusing on these key variables, the study aims to offer valuable insights into the role of the stock market in Nepal's economic progress. The research framework is presented in the following figure:

Figure 1

Research Framework



(Source: Dhungana, 2023)

Table 2

Descriptions of Variables

Name of Variable	Acronyms	Variables Details
Gross domestic product Growth	GDP	Measures economic growth, used as a growth rate and as a dependent variable.
Market capitalization	MC	Measures as a total market value of all outstanding shares. It is reflected as a percent of GDP.
Trading turnover	TT	Measures the liquidity of a stock market. Reflected as a growth rate.
NEPSE index	NI	Measures the overall stock market growth.
Gross capital formation	GCF	Measures the investments made on expanding the economy's fixed assets and net adjustments to the inventories. Reflected as a percent of GDP.
Gross national savings	GNS	Measures as the difference between gross national income and total consumption. It is reflected as a percent of GDP.

(Source: Dhungana, 2023)

Dependent Variable

Gross Domestic Product Growth

Gross Domestic Product represents the total monetary value of all finished goods and services produced within a country's borders in a specific time period. It serves as a broad measure of a nation's overall economic activity. According to Todaro and Smith (2015) GDP growth is a key indicator of economic development, reflecting increases in production, income, and consumption within the economy. GDP is often used in empirical studies to assess how various macroeconomic factors and financial market developments influence economic performance. In the context of Nepal, Dhungana (2023) has utilized GDP as the dependent variable to measure the impact of stock market indicators. By analyzing changes in GDP, the study seeks to understand how developments in the financial sector contribute to broader economic outcomes.

Independent Variables

Market Capitalization

Market capitalization refers to the total market value of a company's outstanding shares and serves as a measure of the size of a stock market. Levine and Zervos (1998) emphasized that higher market capitalization indicates greater market depth and liquidity, which can encourage investment and economic growth. It reflects investor confidence and the capacity of the capital market to mobilize long-term funds for productive use. In Dhungana's (2023) study on Nepal, market capitalization has been considered a crucial indicator of stock market development and its potential influence on economic growth. A well-capitalized market can channel savings into investments, promoting industrial development and boosting GDP.

Trading Turnover

Trading turnover ratio is the value of shares traded relative to the market capitalization. It indicates market liquidity and efficiency, showing how easily investors can buy or sell stocks without causing major price fluctuations. Bekaert et al. (2007) argued that higher turnover ratios suggest more active and liquid markets, which attract domestic and foreign investors, ultimately supporting economic growth. Dhungana (2023) has included trading turnover in the Nepalese context to evaluate how liquidity in the secondary market contributes to economic activity. Efficient trading environments

foster confidence and reduce transaction costs, facilitating smoother capital allocation and enhancing GDP growth.

NEPSE Index

The NEPSE Index is the benchmark stock index of the Nepal Stock Exchange, which reflects the overall performance and investor sentiment in the Nepalese stock market. According to Singh (1997), a rising stock index generally signifies growing investor confidence, increased wealth, and enhanced expectations about the future economic outlook, all of which positively impact consumption and investment behavior. Dhungana (2023) employed the NEPSE index to analyze how changes in market valuation and investor sentiment correlate with macroeconomic performance in Nepal. As a barometer of the stock market's health, the NEPSE index serves as a leading indicator for economic trends and potential growth patterns.

Gross Capital Formation

Gross capital formation refers to the net investment in physical assets such as machinery, infrastructure, and buildings. It plays a critical role in enhancing a country's productive capacity. According to Solow's growth model (1956), capital accumulation is a key driver of long-term economic growth. In Dhungana's (2023) study, gross capital formation has been included as an independent variable to explore its role in supporting GDP growth in Nepal. Investment in capital goods enables the expansion of productive activities, fosters employment generation, and stimulates aggregate demand, thereby contributing positively to economic development.

Gross National Savings

Gross national savings represent the total savings generated by a nation, including personal, corporate, and government savings. According to Loayza et al. (2000) high levels of national savings are essential for financing investment without relying on foreign capital. It creates a pool of domestic funds that can be channeled into productive investments through financial institutions, including the stock market. Dhungana (2023) has considered gross national savings in the study to determine its influence on economic growth in Nepal. Strong saving behavior supports internal capital formation and resilience against external shocks, enhancing long-term economic performance and stability.

CHAPTER IV

RESULTS AND DISCUSSION

In this chapter, data have been presented in an appropriate format, then analyzed and discussed. The analysis has aimed to answer the research questions posed or test the hypotheses set in the introduction chapter. The outcomes of the analyses have been considered as the results. These results have then been discussed and interpreted in light of relevant theories and empirical studies to reach a conclusion. Accordingly, this chapter has been organized under the Results and Discussion section.

4.1 Results

This section presents the results obtained from the collected secondary data. Data have been gathered for the independent variables of this study, which include market capitalization, trading turnover, NEPSE index, gross capital formation, and gross national savings. The dependent variable is the GDP growth of Nepal. The analysis incorporates both descriptive and inferential statistics to address the specific objectives of the study, and all statistical analyses have been performed using SPSS software version 29. Descriptive statistics include the minimum, maximum, mean, and standard deviation, which describe the range, central tendency, and variability of the study variables over the study period. Inferential statistics include correlation and regression analyses. Correlation analysis measures the direction and strength of the relationships between the independent variables with GDP growth, while regression analysis examines the impact of the independent variables on GDP growth in Nepal. The results of this study are presented below.

I. Results of Descriptive Statistics

Descriptive statistics have been used to present the summary of key characteristics of the data, including the minimum, maximum, mean, and standard deviation of the independent variables namely MC, TT, NI, GCF and GNS as well as the dependent variable GDP Growth. The analysis includes data from 2009/10 through 2023/24 to illustrate the range, central tendency, and variability of these variables over the study period. The findings are presented in Table 3, highlighting the trends and comparisons across these key macroeconomic indicators.

Table 3*Summary of Descriptive Statistics of All Study Variables*

Variables	N	Min	Max	Mean	S.D.
MC	15	19.50	93.80	48.7027	20.75864
TT	15	-28.46	123.73	23.2900	48.30582
NI	15	362.90	2883.40	1241.3133	724.28613
GCF	15	28.00	41.00	33.3333	4.43471
GNS	15	30.00	43.00	36.6667	4.22013
GDP	15	-2.37	8.98	4.3133	2.80808

(Source: SPSS Version 29)

Table 3 summarizes the descriptive statistics of the study variables over 15 years. Market Capitalization (MC), measured as a percentage of GDP, has a mean value of 48.70%, indicating that on average, the stock market size is about half of Nepal's GDP during this period. The standard deviation of 20.76% shows moderate fluctuations, suggesting that market capitalization varied significantly from year to year. Trading Turnover (TT), measured as the growth rate, has a mean of 23.29%, reflecting generally positive trading activity in the market, but its high standard deviation of 48.31% indicates substantial volatility and inconsistency in trading volume growth. The NEPSE Index (NI), representing overall stock market performance, has an average value of 1241.31 points, with a large standard deviation of 724.29 points, which implies wide swings in market performance over the years. For the macroeconomic variables, Gross Capital Formation (GCF) as a percentage of GDP averages 33.33%, with a standard deviation of 4.43%, showing relatively stable investment in physical assets. Similarly, Gross National Savings (GNS) averages 36.67% of GDP, with a standard deviation of 4.22%, indicating a fairly steady saving rate in the economy. Finally, the GDP Growth Rate shows an average annual growth of 4.31%, with values ranging from a contraction of -2.37% to a peak of 8.98%. The standard deviation of 2.81% reflects moderate variability in economic growth during the study period. Overall, these statistics depict a moderately fluctuating stock market environment alongside relatively stable macroeconomic conditions and steady economic growth in Nepal. These variations highlight the dynamic nature of Nepal's capital market and its potential influence on economic growth, which will be further explored through correlation and regression analysis in the following sections.

II. Results of Inferential Statistics

Inferential statistics include correlation and regression analyses. Correlation analysis examines the relationships between the independent variables with the dependent variable, GDP Growth. Regression analysis is then used to evaluate the impact of independent variables on GDP growth in Nepal. The results of the correlation and regression analyses are presented below.

Correlation Analysis

The correlation matrix illustrates the relationships between MC, TT, NI, GCF and GNS with GDP growth in Nepal. It helps assess the direction and strength of the relationships between each independent variable and GDP growth. The results are presented below.

Table 4

Correlation analysis Between Study Variables

Variables	MC	TT	NI	GCF	GNS	GDP
MC	1					
TT	0.159	1				
NI	0.587*	0.387	1			
GCF	-0.169	-0.363	0.277	1		
GNS	-0.157	-0.162	-0.222	0.461	1	
GDP	-0.594*	-0.184	-0.034	0.660**	0.548*	1

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

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

(Source: SPSS Version 29)

Table 4 depicts the correlation analysis between the independent variables such as Market Capitalization (MC), Trading Turnover (TT), NEPSE Index (NI), Gross Capital Formation (GCF) and Gross National Savings (GNS) with the dependent variable Gross Domestic Product (GDP) Growth. Market Capitalization (MC) has a moderate negative correlation with GDP growth ($r = -0.594$, $p = 0.023$), which is statistically significant at the 0.05 significance level, indicating that a higher market capitalization is associated with lower GDP growth during the study period. Trading Turnover (TT) shows a very weak negative correlation with GDP growth ($r = -0.184$, $p = 0.513$), which is not significant at the 0.05 level, suggesting no reliable relationship. The NEPSE Index (NI) has a very weak negative correlation with GDP growth ($r = -0.034$, $p = 0.910$), also not

significant at the 0.05 level, implying no meaningful association. Gross Capital Formation (GCF) shows a strong positive correlation with GDP growth ($r = 0.660$, $p = 0.008$), which is statistically significant at the 0.05 level, indicating that increased investment in capital assets is associated with stronger economic growth. Gross National Savings (GNS) has a moderate positive correlation with GDP growth ($r = 0.548$, $p = 0.036$), also statistically significant at the 0.05 level, reflecting a meaningful positive contribution to economic growth. Overall, the results indicate that Gross Capital Formation and Gross National Savings are positively and significantly related to GDP growth, while Market Capitalization is significantly but negatively related. In contrast, Trading Turnover and the NEPSE Index do not show statistically significant relationships with GDP growth at the 0.05 significance level.

Regression Analysis

Regression analysis examines the influence of MC, TT, NI, GCF and GNS on GDP Growth. The analysis includes the model summary, analysis of variance (ANOVA), and regression coefficients to evaluate how these stock market and macroeconomic variables affect economic growth in Nepal. The results of the regression analysis are presented below.

Table 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.909	0.826	0.730	1.45886

a. Predictors: (Constant), MC, TT, NI, GCF, GNS

(Source: SPSS Version 29)

Table 5 presents the model summary of the regression analysis. The key statistic, R Square, is 0.826, which indicates that 82.6 percent of the variation in GDP Growth is explained by the combined effect of the independent variables: MC, TT, NI, GCF and GNS. This high R Square value suggests that the regression model has a strong explanatory power in capturing the dynamics of economic growth in Nepal based on these variables. The remaining 17.4 percent of the variation in GDP growth is due to other factors not included in the model, such as external shocks, political events or other macroeconomic variables.

Table 6*Analysis of Variance (ANOVA)*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.240	5	18.248	8.574	0.003
	Residual	19.155	9	2.128		
	Total	110.395	14			

a. Dependent variable: GDP Growth

b. Predictors: (Constant), MC, TT, NI, GCF, GNS

(Source: SPSS Version 29)

Table 6 presents the Analysis of Variance (ANOVA) for the regression model. The F-statistic is 8.574 with a p-value of 0. MC, TT, NI, GCF and GNS together have a significant impact on GDP Growth in Nepal. The model reliably predicts GDP growth based on these variables.

Table 7*Coefficients of Independent Variables for GDP Growth*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Sd. error	Beta		
1 (Constant)	-5.686	4.622		-1.230	0.250
MC	-0.119	0.032	-0.879	-3.764	0.004
TT	-0.013	0.013	-0.225	-1.021	0.334
NI	0.003	0.001	0.688	2.117	0.063
GCF	-0.002	0.184	-0.003	-0.011	0.991
GNS	0.351	0.134	0.527	2.614	0.028

a. Dependent variable: GDP Growth

(Source: SPSS Version 29)

$$\text{GDP} = -5.686 - 0.1197\text{MC} - 0.013\text{TT} + 0.003\text{NI} - 0.002\text{GCF} + 0.351\text{GNS} + \epsilon_{it}$$

Table 7 illustrates the regression coefficients for the impact of the independent variables on GDP Growth. The unstandardized coefficient for Market Capitalization (MC) is -0.119 with a p-value of 0.004 which is statistically significant at the 0.05 level indicating that a one-unit increase in MC leads to a 0.119-unit decrease in GDP growth,

holding other variables constant. Trading Turnover (TT) has a negative coefficient of -0.013 but is not significant ($p = 0.334$) suggesting no meaningful impact on GDP growth due to the high p-value, which implies the effect could be due to random variation. NEPSE Index (NI) shows a positive coefficient of 0.003 with a p-value of 0.063 slightly above the 0.05 threshold indicating a weak positive association but not statistically reliable. Gross Capital Formation (GCF) has a negligible negative coefficient (-0.002) with a very high p-value (0.991) indicating no significant effect on GDP growth. Gross National Savings (GNS) has a positive coefficient of 0.351 and is statistically significant ($p = 0.028$) meaning that a one-unit increase in GNS leads to a 0.351-unit increase in GDP growth, holding other factors constant. Based on the standardized coefficients (Beta), Market Capitalization has the highest negative impact on GDP growth (Beta = -0.879, $p = 0.004$), while Gross National Savings shows the lowest positive influence on GDP growth (Beta = 0.527, $p = 0.028$) among the significant variables. The remaining variables are statistically insignificant and therefore not useful for final decision-making.

Table 8

Test of Hypotheses

Hypotheses	Sig. Value	Decision
H ₁ : There is significant impact of market capitalization on GDP growth in Nepal.	0.004	Supported
H ₂ : There is significant impact of trading turnover on GDP growth in Nepal.	0.334	Not Supported
H ₃ : There is significant impact of NEPSE index on GDP growth in Nepal.	0.063	Not Supported
H ₄ : There is significant impact of gross capital formation on GDP growth in Nepal.	0.991	Not Supported
H ₅ : There is significant impact of gross national savings on GDP growth in Nepal.	0.028	Supported

(Source: Regression Analysis)

Table 8 shows the results of the hypotheses testing based on the regression analysis. Hypothesis H₁, which states that market capitalization has a significant impact on GDP growth in Nepal, is supported with a significance value of 0.004, below the 0.05 level.

Hypothesis H₅, stating that gross national savings significantly affect GDP growth, is also supported with a significance value of 0.028. However, hypotheses H₂, H₃ and H₄ which propose significant impacts of trading turnover ($p = 0.334$), NEPSE index ($p = 0.063$) and gross capital formation ($p = 0.991$) on GDP growth are not supported because their significance values exceed 0.05. These findings indicate that only market capitalization and gross national savings have a statistically significant influence on Nepal's economic growth among the variables studied.

4.2 Discussion

The study has examined the impact of stock market development indicators and macroeconomic variables on economic growth in Nepal, focusing on Market Capitalization (MC), Trading Turnover (TT), NEPSE Index (NI), Gross Capital Formation (GCF) and Gross National Savings (GNS) as independent variables, with GDP growth as the dependent variable. Secondary data spanning fiscal years 2009/10 to 2023/24 were analyzed using descriptive statistics, correlation and regression analysis in SPSS version 29.

Descriptive statistics showed that Market Capitalization averaged 48.70% of GDP (SD = 20.76), reflecting a moderate stock market size relative to the economy with considerable annual fluctuation. Trading Turnover averaged 23.29% growth (SD = 48.31), indicating significant volatility in trading activity. The NEPSE Index had a mean value of 1241.31 points (SD = 724.29), revealing large swings in stock market performance. Gross Capital Formation averaged 33.33% of GDP (SD = 4.43), while Gross National Savings averaged 36.67% (SD = 4.22), both demonstrating relative stability. The GDP growth rate averaged 4.31% (SD = 2.81), showing moderate variability over the study period.

Correlation analysis revealed that Market Capitalization had a moderate significant negative correlation with GDP growth ($r = -0.594$, $p = 0.023$), indicating that increases in market capitalization were associated with decreases in GDP growth. Trading Turnover showed a very weak negative and non-significant correlation with GDP growth ($r = -0.184$, $p = 0.513$), and NEPSE Index also had a very weak negative and non-significant correlation ($r = -0.034$, $p = 0.910$). In contrast, Gross Capital Formation exhibited a strong positive and significant correlation with GDP growth ($r = 0.660$, $p =$

0.008) while Gross National Savings had a moderate positive and significant correlation ($r = 0.548$, $p = 0.036$).

Regression analysis further clarified these study. Market Capitalization showed a statistically significant negative impact on GDP growth (unstandardized coefficient $B = -0.119$, $p = 0.004$), suggesting that a one-unit increase in market capitalization leads to a 0.119-unit decrease in GDP growth, holding other factors constant. Gross National Savings had a significant positive impact ($B = 0.351$, $p = 0.028$) indicating a strong role in fostering economic growth. The NEPSE Index had a positive but marginally insignificant effect ($B = 0.003$, $p = 0.063$). Trading Turnover and Gross Capital Formation had negligible and non-significant effects on GDP growth, with coefficients of -0.013 ($p = 0.334$) and -0.002 ($p = 0.991$) respectively. The overall regression model had a high explanatory power, with an R^2 of 0.826, meaning 82.6% of the variation in GDP growth was accounted for by these variables. The model's ANOVA result was significant ($F = 8.574$, $p = 0.003$) confirming the combined predictive power of the independent variables on GDP growth.

In this study, Stock Market Development and Economic Growth in Nepal, Market Capitalization has a moderate negative correlation with GDP growth, consistent with Panta (2020), suggesting limited linkage between market size and economic growth, but contrasting with Khadka et al. (2023), who found macroeconomic factors positively influence stock returns. This contradicts the Financial Development Theory (Goldsmith, 1969; Levine, 1997), which assumes that greater market capitalization should promote economic growth by channeling savings into productive investments. Trading Turnover shows a very weak negative correlation with GDP growth, aligning with Panta (2020), but contrasting with Khadka et al. (2023), and challenging the Stock Market Liquidity Theory (Amihud & Mendelson, 1986), which posits that higher liquidity should support growth. The NEPSE Index has a very weak negative correlation with GDP growth, consistent with Panta (2020), but contrasting with the Capital Market Efficiency Theory (Fama, 1970), which suggests that an efficient stock market, as reflected by a representative index, should positively influence GDP. Gross Capital Formation shows a strong positive correlation with GDP growth, supported by Endogenous Growth Theory (Romer, 1990; Barro & Sala-i-Martin, 1995) and Khadka et al. (2023), but contrasting with Panta (2020), who observed limited impact of capital

formation on growth. Gross National Savings has a moderate positive correlation with GDP growth, aligning with Macroeconomic Stability Theory (Friedman, 1953) and Khadka et al. (2023), but contrasting with Panta (2020), indicating that stable savings patterns contribute significantly to Nepal's economic performance.

In regression analysis, Market Capitalization has a significant negative impact on GDP growth, consistent with Panta (2020), but contrasting with Khadka et al. (2023) and the assumptions of Financial Development Theory, which predicts a positive relationship. Trading Turnover has an insignificant negative impact on GDP growth, aligning with Panta (2020), but contrasting with both Khadka et al. (2023) and the Stock Market Liquidity Theory, which links high liquidity with lower capital costs and growth. The NEPSE Index has a positive but insignificant impact on GDP growth, consistent with Panta (2020), yet it challenges the Capital Market Efficiency Theory, which holds that efficient price discovery mechanisms lead to resource allocation and economic gains. Gross Capital Formation has a negligible negative and insignificant impact on GDP growth, contrasting with Khadka et al. (2023) and Endogenous Growth Theory, but aligning with Panta (2020), possibly reflecting inefficiencies in capital utilization. Gross National Savings has a significant positive impact on GDP growth, supported by Macroeconomic Stability Theory and Khadka et al. (2023), but contrasting with Panta (2020), reinforcing the importance of macro-level savings and economic consistency for sustained growth.

CHAPTER V

SUMMARY AND CONCLUSION

The purpose of this chapter to present an overview of the study in the summarized form along with major findings and the conclusion of the study. Accordingly, it has been organized in three sections:

5.1 Summary

This study has been conducted to survey stock market development and economic growth in Nepal by focusing on three specific objectives: to assess the situation of key stock market and macroeconomic variables, to examine the relationships between these variables with GDP growth, and to analyze the effect of stock market development indicators and macroeconomic factors on economic growth. It has included stock market indicators such as market capitalization, trading turnover, and the NEPSE index, along with macroeconomic variables like gross capital formation and gross national savings as independent variables, and GDP growth as the dependent variable. It has covered the fiscal years from 2009/10 to 2023/24, with data selected through purposive sampling. The study has been based on secondary data collected from reliable sources, including Nepal Rastra Bank, NEPSE, Central Bureau of Statistics, Ministry of Finance, the World Bank, and the International Monetary Fund. The analysis has been conducted using SPSS software, applying both descriptive and inferential statistical tools. Descriptive statistics have been used to examine the situation and variability of each variable over the study period. Correlation analysis has been used to identify the direction and strength of relationships between the variables, while regression analysis has assessed the influence of the independent variables on GDP growth.

The descriptive analysis has shown that Market Capitalization, Trading Turnover, and the NEPSE Index have exhibited considerable variability over the years. In contrast, Gross Capital Formation has remained relatively stable with minimal fluctuations. Gross National Savings has also shown stability throughout the study period. GDP growth has varied moderately, reflecting the dynamic and evolving nature of Nepal's economy during this time. These trends highlight the differing behaviors of financial

and economic indicators over the study period. Understanding these variations is crucial for policymakers and investors aiming to foster sustainable economic growth.

The correlation analysis has shown that Market Capitalization has had a moderate negative and statistically significant correlation with GDP growth, indicating that higher market capitalization has been associated with lower economic growth during the study period based on purposive sampling. Trading Turnover has exhibited a very weak negative correlation with GDP growth that has been statistically insignificant, likely due to its low correlation coefficient and high p-value, indicating a lack of reliable association. Similarly, the NEPSE Index has shown a very weak negative and statistically insignificant correlation with GDP growth, implying no meaningful relationship within the purposively selected period. Gross Capital Formation has had a strong positive and statistically significant relationship with GDP growth, indicating that increased investment in capital assets has supported economic growth. Gross National Savings has also demonstrated a moderate positive and statistically significant correlation with GDP growth, reflecting its meaningful contribution to the economy.

Regression analysis has confirmed that Market Capitalization has had a significant negative effect on GDP growth, while Gross National Savings has had a significant positive effect. The NEPSE Index has shown a positive but weak effect, slightly above the significance threshold. Trading Turnover and Gross Capital Formation have not demonstrated significant impacts on economic growth, likely due to their high p-values, indicating insufficient evidence of a meaningful effect. The overall regression model had a high explanatory power, with an R^2 of 0.826, meaning 82.6% of the variation in GDP growth was accounted for by these variables. The model's ANOVA result was significant ($F = 8.574$, $p = 0.003$), confirming the combined predictive power of the independent variables on GDP growth.

Overall, the study has suggested that while macroeconomic variables such as savings have contributed positively to Nepal's economic growth, stock market development measured by market size and liquidity has not necessarily translated into economic progress. These findings have highlighted the need for policies that improve the effectiveness and contribution of the stock market toward sustainable economic development in Nepal.

5.2 Conclusion

The first objective of this study is to assess the situation of stock market indicators and macroeconomic variables affecting economic growth in Nepal. This was achieved through descriptive analysis, which revealed notable variability in market capitalization, trading turnover, and the NEPSE index over the study period. Gross capital formation and gross national savings remained relatively stable, while GDP growth exhibited moderate fluctuations, reflecting the changing economic environment. From the researcher's perspective, these findings illustrate the dynamic and sometimes volatile nature of Nepal's capital market contrasted with the relatively steady macroeconomic environment, indicating that the stock market alone may not fully reflect broader economic stability.

The second objective is to examine the relationships between market capitalization, trading turnover, NEPSE index, gross capital formation, gross national savings with GDP growth. Correlation analysis showed that gross capital formation and gross national savings have positive associations with GDP growth, suggesting their supportive role in economic expansion. Market capitalization, however, demonstrated a significant negative relationship with GDP growth. Trading turnover and the NEPSE index showed weak and statistically insignificant relationships. The researcher views these mixed results as evidence of complex and sometimes counterintuitive interactions between stock market development and economic growth in Nepal, underscoring the importance of considering multiple economic factors beyond capital market size.

The final objective is to analyze the effect of these variables on GDP growth using regression analysis. The results confirmed that market capitalization has a significant negative effect on GDP growth, while gross national savings have a significant positive effect, reinforcing the importance of savings in driving economic progress. The NEPSE index showed a positive but weak influence, whereas trading turnover and gross capital formation did not have significant impacts on economic growth. From the researcher's point of view, these findings highlight that macroeconomic fundamentals such as savings play a more critical role in fostering economic growth than stock market size or liquidity alone. This suggests that Nepal's stock market requires structural improvements and policy interventions to enhance its efficiency and capacity to contribute effectively to sustainable economic development.

5.3 Implications

This study has several implications for policymakers, practitioners, and the academic community, outlined as recommendations and areas for future research:

For Policymakers

- Strengthen regulatory frameworks and market infrastructure to improve stock market efficiency.
- Enhance transparency, investor confidence, and market accessibility to better connect stock market growth with economic development.
- Prioritize policies that promote gross national savings and capital formation as key drivers of GDP growth.
- Encourage structural reforms aimed at deepening and stabilizing the capital market.

For Practitioners

- Address market volatility and improve liquidity management to foster a stable investment environment.
- Focus on promoting quality investments and long-term capital allocation rather than merely increasing market size.
- Implement investor education programs and protection mechanisms to boost market participation and resilience.
- Advocate for adoption of best practices to enhance market stability and efficiency.

For Academic Community and Future Research

- Investigate additional factors such as institutional quality, financial market integration, and investor behavior to deepen understanding of stock market and economic growth linkage.
- Conduct comparative studies with other emerging economies to derive broader policy lessons.
- Utilize primary data and qualitative methods to explore causes of market inefficiencies and investor decision-making processes.
- Explore the role of macroeconomic shocks and external influences on the stock market's contribution to economic growth.

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APPENDIX

Summary of Data Collection for Study Variables

Years	Market Capitalization (% of GDP)	Trading Turnover (Growth Rate)	NEPSE Index	Gross Capital Formation (% of GDP)	Gross National Savings (% of GDP)	GDP Growth Rate
2009/10	32.2	40.05	749.1	32	37	4.53
2010/11	19.5	-26.53	477.7	38	38	4.82
2011/12	23.4	-14.17	362.9	28	30	3.42
2012/13	30.2	13.84	389.7	29	35	4.67
2013/14	40	39.71	518.3	30	37	3.53
2014/15	40.8	105.48	1,036.1	31	40	6.01
2015/16	72.5	-6.41	961.2	31	40	3.98
2016/17	60.3	91.04	1,718.2	28	35	0.43
2017/18	41.5	-1.76	1,582.7	37	42	8.98
2018/19	40.6	-22.71	1,212.4	40	43	7.62
2019/20	45.8	9.22	1,259.0	41	42	6.66
2020/21	93.8	14.37	1,362.4	30	33	-2.37
2021/22	59.14	123.73	2,883.4	35	31	4.84
2022/23	54	-28.46	2,009.5	38	31	5.63
2023/24	76.8	11.95	2,097.10	32	36	1.95

(Source: Investopaper; Tradingeconomics; World Bank; NEPSE; NRB Reports)

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