THE ROLE OF FUNDAMENTAL AND TECHNICAL ANALYSIS IN STOCK TRADING

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

By

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Certification of Authorship

I hereby confirm that I have researched and submitted the final draft of dissertation entitled "THE ROLE OF FUNDAMENTAL AND TECHNICAL ANALYSIS IN STOCK TRADING". The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes.

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

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REPORT OF RESEARCH COMMITTEE

Mr. Mohan Shrestha has defended research proposal entitled **"The Role of Fundamental and Technical Analysis in Stock Trading"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Dr. Pitri Raj Adhikari. Submit the thesis for evaluation and viva-voce examination.

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APPROVAL SHEET

We have examined the dissertation entitled **"The Role of Fundamental and Technical Analysis in Stock Trading"** presented by Mohan Shrestha, a candidate for the degree of Master of Business Studies (MBS). We hereby certify that the dissertation is acceptable for the award of degree.

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Mohan Shrestha

Table of Contents

CONTENTS **PAGE**

LIST OF TABLES **PAGE**

LIST OF FIGURES

ABBREVIATIONS

CIT	Citizen Investment Trust
COGS	Cost of Goods Sold
DCF	Discounted Cash Flow
EMA	Exponential Moving Average
EPS	Earning Per Share
FD	Fixed Deposit
GBIME	Global Ime Bank Limited
JPX	Japan Exchange Group
MA	Moving Average
MACD	Moving Average Convergence/Divergence
NABIL	Nabil Bank Limited
NASDAQ	National Association of Securities Dealers Automated Quotations
EURONEXT	European New Exchange Technology
NEPSE	Nepal Stock Exchange
NRIC	Nepal Re-insurance Company Limited
NTC	Nepal Telecommunication
NYSE	New York Stock Exchange
ROC	Price Rate of Change
RSI	Relative Strength Index
SMA	Simple Moving Average
SSE	Shanghai Stock Exchange

Abstract

Stock trading is the buying and selling shares in publicly traded companies. To know the buying, selling and not to lose money investors have to know how to do fundamental and technical analysis of a stock.

The purpose of this research is to examine the tools used in the fundamental and technical analysis on stock trading in capital market. For finding out the purpose of the study, top five companies on the basis market capitalization listed in the NEPSE are taken for the study and their fundamental and technical analysis are carried out. NTC, Nabil, CIT, NRIC and GBIME are top five companies whose analysis are carried out. For fundamental analysis Return on equity (ROE), Dividend, Earning Per Share (EPS), Price Earnings Ratio (PE), Price-to-Book value Ratio (PB) and their book value are taken for the interpretation. In case of Technical analysis there are many tools explained the research but only three tools are used while analyzing the stocks. Moving Average, RSI and Bollinger bands are taken for as the technical indicators.

Fundamental and technical analysis are independent variable whereas stock trading is dependent variable. Descriptive analysis, analytical surveys and comparative analysis are carried out for the research. Among the 5 companies dividend given by NTC is very high compared to others. Coming up with conclusion, in the context of trading, new investors have to know the fundamental and technical analysis in order to sustain in the capital market in any capital market of the world. This dissertation is based on secondary data collected from the NEPSE, Merolagani and other websites. As we know fundamental and technical analysis are carried out with all the past prices and data.

Keywords: - *Fundamental analysis, Technical analysis, Stock trading, etc.*

CHAPTER I

INTRODUCTION

1.1 Background of the study

The role of fundamental and technical analysis in stock trading plays a crucial role on saving investors and traders from losing their money in the capital market. Everybody labors in the modern world for food, shelter, clothes, health, education, and entertainment. Earning just for basic needs is not enough in this competitive society. Earning and saving a certain percentage of earnings and later investing those savings has become the smartest way to beat inflation, generate passive income, accumulation wealth, and achieve financial goals. Investment is a commitment to a number of funds or other resources made at the time, with the aim of obtaining a number of benefits in the future (Tandelilin, 2017). There are many fields of investment, like real estate, commodities, metals, crypto currencies, insurance policies, bonds, stocks, mutual funds, and many more.

There are many fields of investment, but the stock market has become popular because of its potential capital gains from owning a stock that grows in value over time. Stock is one of the investment fields that is quite attractive but has a high risk (Hermuningsih, 2017). Investors focus on buying and holding onto stocks of fundamentally strong companies, aiming to benefit from the overall growth of the market over time. On the other hand, short-term investors, or traders in the stock market, have a much shorter investment perception compared to long-term investors. Investing is long-term and involves lesser risk, while trading is short-term and involves high risk. Investors can invest in stock using a long-term strategy for profit, but there are other ways that can be used to develop funds from stock investments, namely trading activities (Abbey & Doukas, 2012).

Both traders and investors earn profit, but traders frequently earn more profit compared to investors when they make the right decisions, and the market is performing accordingly. With its focus on qualitative aspects and intrinsic value, fundamental analysis provides investors with a thorough grasp of the underlying assets and long-term growth potential. Unlikely, technical analysis focuses on historical price data and chart patterns to identify short-term trends and trading opportunities. Successful investors often leverage both

frameworks, adapting the balance based on their individual investment styles and market environments (Jarunde, 2023). The goal of this research is to identify strategies for trading stocks that will maximize investors wealth. The two main elements that influence trading decisions are fundamental and technical analysis. Fundamental analysis is a method of evaluating stocks by analyzing various determinants related to the underlying company's financial health, management quality, industry position, and economic environment.

Fundamental analysis is a method of finding out the future price of a stock that an investor wishes to buy. It relates to the examination of the intrinsic worth of a company to find out whether the current market price is fair or not, whether it is overpriced or underpriced, in the background of the company's performance, in the background of the performance of the industry to which the company belongs, and also in the general socio-political scenario of the country (Sabarirajan, 2015). On that note, technical analysis is a method of evaluating stocks and other financial assets by accumulating historical price and volume data to predict future price movements.

Technical indicators, volume analysis, chart patterns, price charts, trend analysis, support and resistance levels, market sentiment indicators, timeframes, etc. are some key principles and tools used in technical analysis. Technical analysis is used to predict the future market price of a share using statistics on the past performance of that share. Technical analysis uses previous price fluctuations when trying to estimate future price movements and changes in the price of share. Technical analysis is based on the assumption that patterns in stock price movements repeat themselves and can determine the best times for you to buy and sell (Petrusheva & Jordanoski, 2016). Traders have to dedicate their time to learning and staying updated on market trends and news. Traders have to employ risk management techniques to minimize losses and maximize gains, such as setting stop-loss orders and position sizing. Traders always have to make quick decisions based on market data, news, and analysis so as not to miss any profit-making opportunities. Traders conduct thorough analysis of market trends, technical indicators, and trading patterns to identify potential trading opportunities. They even use charting software, financial news sources, and trading algorithms to inform their decisions.

Fundamental analysis provides insight into the underlying value of a company, while

technical analysis focuses on price movements, market trends, and other factors. Both approaches have their strengths and weaknesses, and many traders use a combination of fundamental and technical analysis to make well-informed trading decisions. This study focuses on these two analyses and the tools or techniques used by traders and investors while stock trading to maximize profits.

1.2 Problem statement

Many analysts focus mainly on numerical data when analyzing fundamentals. But if you confine your study and comparison to the financial statements, then the study itself is flawed. (Thomsett, 2006). Everybody wants to win, in the same way everybody wants to earn in the stock market but this couldn't happen. In the stock market if somebody has to win then somebody else has to lose.

This study cannot be completed without knowing why traders lose money in the market. Some of the main reasons are trading without knowing the market trend, depending on trading advice, no obstacles on trading, poor trading decisions, excessive market panic, attempting to recover losses quickly, and many more. Stock markets are full of players, and players are also categorized into big, average, and small. The big players who hold the largest portfolio in the stock market hold significant influence over stock prices.

If investors should pay attention towards these technical tools and made their buy or sell decisions according to the analysis of various tools like MACD, RSI, ROC, etc., it will definitely affect the return for investors positively (Arora & Patel 2022). But still institutional investors, hedge funds, and large corporations can shape the market through their buying and selling activities, investment strategies, and corporate actions. Big players, which include large financial institutions, pension funds, insurance companies and mutual funds, possess substantial financial resources and expertise that can greatly influence stock prices and market trends. Understanding the role of these big players is crucial for individual investors seeking to navigate the complex stock market landscape. New investors who enters in stock trading thinking of earning from the stock market have a highest chance of losing their money if they doesn't know the how market is manipulated by major players. In a market with manipulators, the information seekers play a more ambiguous role. More information seekers implies greater competition for shares, improving market efficiency,

but also increasing the possibility for the manipulator to enter the market (Aggarwal & Wu, 2006). Traders who have been in the market for a very long time use their experiences and powers to manipulate the market through many means, but most common is news. News might be in social media or any other recognized paper which are also on big players side. Using social platforms like Facebook, Instagram, TikTok, Telegram, Youtube, etc. to spread the rumors will lure new investors to buy the stocks.

New investors enters the market and lose the money. After losing the money, they get emotional and again buy or sell stocks, which will be another mistake. Insider trading involves trading in a public company's stock or other securities by someone with non-public, material information about the company. Most insider trading is considered illegal but still in practice on the world's largest stock exchange as well as in Nepalese capital market. Therefore, even if news comes later to investor's ears, they can check whether it's safe to invest or not if they know the fundamental and technical analysis of stock trading. Fundamental analysis uses future and present data in order to estimate the fair stock market value and to predict future value. It usually begins by analyzing the macroeconomic environment, analyzing sectors and then financial statements in order to determine the real value of the company (Baresa & Sinisa 2013).

Investors enter the market hoping to get the best return on their capital compared to the bank's FD. This study is conducted purely to help investors or traders make well-informed decisions while buying and selling stocks. The role of fundamental and technical analysis in the stock market is totally neglected by traders. Running after rumors and following the big traders opinions have made the new investors lose their capital and confidence in the market. This study focuses on the role of fundamental and technical analysis on stock trading. In this regard, the following will be specific research questions:

i. What is the importance of fundamental and technical analysis in stock trading?
ii. Why don't new investors use fundamental and technical indicators while investing?

1.3 Objectives of the study.

The main objective of this study is to interpret the role of fundamental and technical analysis on stock trading. Accordingly, the specific objectives are as follows:

i. To compare the efficiency of fundamental analysis and technical analysis in predicting stock price movements

ii. To evaluate the historical performance of financial analysis and technical analysis strategies in different market conditions. (Bull, bear, and sideways).

1.4 Research hypothesis

Hypothesis in research are the statements created by the students in order to make the theory over the outcome of research or experiment. A research hypothesis can also be said to be a specific statement of prediction. It will assist in explaining in concrete terms what is happening in the dissertation. All researchers might not have hypotheses and the purpose of the examination is to explore and investigate some areas so as to build some specific hypotheses or forecasts that can be tried in future research. Following are the hypothesis associated with the study:

H1: There is an inverse relationship between fundamental and technical analysis in stock trading.

H2: The combination of fundamental and technical analysis leads to the best investment outcomes compared to using either method individually.

1.5 Rationale of the Study

The reason for conducting this research is to determine the role of fundamental and technical analysis in stock trading. The top five companies on the basis of market capitalization listed in the NEPSE, namely NTC, Nabil, CIT, NRIC, and GBIME, are taken as the research subjects. These five companies' fundamental and technical indicators are used as means to decide their worthiness and whether to invest in them or not. It is expected that this study will make a good contribution to the other related literature in related academia. Maximizing the wealth portion is the main expectation of any investor.

It is seen that stock trading can multiply the invested money in a short period of time if traders know when to buy and sell. Knowing these two things- fundamental and technical factors- while trading can play a very crucial role in generating profit for traders as well as investors. Comparison of the stocks by using different tools helps the investors have the

capacity to make decisions about buying or selling the stocks. The goal of this research is to help investors get used to these fundamental and technical indicators. It is expected that this study report in fundamental and technical analysis will give good insight to students, specifically those in finance and other related topics. This study focuses on giving traders a clear understanding of the importance of fundamental and technical analysis in stock trading. All the fundamental factors and technical tools used in stock trading will be explained with proper examples. Besides, the current study will also provide a comprehensive framework and literature about the role of fundamental and technical tools.

1.6 Limitations of the study

There are many factors that affect the decision-making while doing stock trading, but among them, fundamental and technical factors play an important role in the purchase of the stocks in the capital market. While there is a growing body of literature suggesting that integrating these methodologies can yield superior results, it is essential to acknowledge the inherent limitations associated with this dissertation. Fundamental and technical analysis can provide investors with the information they need to understand the company's position and market trend, but there are still some limitations to this study:

i. The productiveness of combining fundamental and technical analysis may vary depending on the specific market condition, asset classes, or even individual securities under consideration. Market dynamics, including volatility, liquidity, and investor sentiment, can significantly influence the applicability and success of this analytical work.

ii. Conclusions gathered from technical and fundamental evaluations employing data deemed out-of-date, mistaken or manipulative may be incorrect.

iii. Technical analysis makes extensive use of previous price and volume statistics. There is no promise that past price movements will be reflected in future predictions that are accurate, even though patterns could recur.

iv. Both fundamental and technical analysis involves the subjective interpretation of charts and patterns. Different analysts may interpret the same data differently, leading to conflicting trading signals.

CHAPTER II

LITERATURE REVIEW

Research is indeed a continuous and recursive process. It involves revisiting existing knowledge to pave the way for future advancements. In the same way, this Study "Role of Fundamental and Technical analysis on Stock Trading" has been selected to know the determining factors while doing stock trading in the capital market. In this literature review, some related studies that have been conducted by other scholars will be reviewed, and the gaps in their studies will also be covered. This literature review may serve as a kind of bibliographic index and guide for the students.

2.1 Conceptual review

Conceptual reviews provide the fundamental theoretical framework and foundation to the study. Therefore, various articles, books, journals, previous thesis, and news related to this topic has been reviewed.

2.1.1 Stock trading

Stock trading involves buying and selling shares in publicly traded companies. When someone buys shares of a company, the buyer becomes a small part-owner of that company and has some claim on its assets and earnings, in the form of dividends or capital appreciation. The value of the shares depends on a variety of factors, including the company's financial performance, outlook, overall market conditions, and investor sentiment. Stock trading is primarily conducted electronically through stock exchanges, although historically there have been physical trading floors, and such a trend was in NEPSE as well.

The 17th century in Amsterdam was the first time stock trading was started, when the Dutch East India Company issued the first publicly traded share on the Amsterdam Exchange. This laid the foundation for modern stock markets. The London Stock Exchange is one of the oldest and most prominent stock exchanges globally, having been established in 1801. NYSE, NASDAQ, EURONEXT, SSE, JPX, Shenzhen Stock Exchange, Hong Kong Exchanges, etc. are some of the popular stock exchanges where NYSE is known as the world's largest and most prestigious stock exchange. In case of the Nepalese capital

market, NEPSE is the only stock exchange established in 1994. The history of stock trading reflects its transformation from localized exchanges with manual trading on paper to an electronic market driven by advanced technologies. Each era has shaped the current landscape of stock markets, emphasizing transparency, efficiency, and access for investors of all types. With advancements in technology, online trading platforms and mobile applications have made stock trading more accessible. Here are some common types of stock trading:

Long-term investing:

Objective: Long-term investors buy stocks with the intention of holding them for a long period of time, one year, five years, and more.

Strategy: Focus on fundamental analysis, such as company financials indicators, managerial quality, advantages, and market trends. Long-term investors often aim to benefit from the overall growth and profitability of the company.

Day trading:

Objective: The goal of day trading is to profit from brief price changes that occur within a single trading day.

Strategy: To find intraday trading chances, use technical analysis and chart patterns. Throughout the day, day traders usually execute several deals to capitalize on slight market fluctuations.

Swing trading:

Objective: The goal of swing traders is to profit from the markets brief to medium-sized price fluctuations, or "swings".

Strategy: Incorporate trend-following techniques and market momentum with technical analysis. Swing traders may hold equities for a few days or a few weeks, depending on the direction of the market.

Position trading:

Objective: Position traders keep stocks for weeks or months at a time; they take longer-term positions than swing traders but shorter-term positions than long-term investors.

Strategy: Pay attention to industry studies, macroeconomic trends, and the underlying elements influencing stock values. Profiting from medium-term price movements is the goal of position traders.

Algorithmic trading (Algo trading):

Objective: Algorithmic traders make high-speed trades based on preset criteria by using computer algorithms to automate trading choices.

Strategy: With little to no human involvement, algorithms examine vast datasets that include price fluctuations, trade volume, and market liquidity to find and seize trading opportunities.

Value investing:

Objective: Value investors use fundamental analysis to find cheap stocks that are trading below their real value.

Strategy: Focus on financial metrics such as price-to-earnings (P/E) ratio, price- to-book (P/B) ratio, and dividend yield. Value investors look for stocks they believe have strong growth potential or are temporarily undervalued by the market.

Growth investing:

Objective: Growth investors target stocks of companies expected to grow significantly faster than the market or industry average.

Strategy: Emphasize earnings growth, revenue growth, and other metrics indicating potential for future expansion. Growth investors often prioritize companies with innovative products, expanding market share, or strong industry positions.

Income investing (Dividend investing):

Objective: Income investors focus on stocks that provide regular income through dividends.

Strategy: Look Find stocks of reputable, established businesses that have a track record of delivering dividends. Dividend yield and dividend sustainability are more important to income investors than possible capital gains.

These are general categories, and many traders may combine elements of different strategies or develop their own unique approaches based on personal preferences, risk tolerance, and market conditions. Each type of trading strategy has its advantages and challenges, requiring different skills, knowledge, and discipline from investors and traders. There are several key factors and indicators that traders typically monitor to make informed decision

2.1.2 Fundamental analysis

A technique referred to as fundamental analysis focuses at a variety of both quantitative and qualitative elements of a company's operations, financial standing, and external economic environment in order to determine the intrinsic value of a stock. Finding out if a stock is undervalued, overvalued, or fairly valued in relation to its present market price is the aim of fundamental research. This strategy is predicated on the idea that, although a company may occasionally be undervalued in the short run by the market, over time its price tends to represent its true worth.

Components of fundamental analysis

2.1.2.1 Qualitative analysis:

Business Model and Industry Analysis:

Business Model: Understanding the way how company generates revenue, its products or services, and its market positioning.

Industry Analysis: Evaluating assessing the competitive climate, market trends, regulatory framework, and growth possibilities of the industry that may have an effect on the business.

Management quality and corporate governance:

Management Team: Assessing the competence, experience, and track record of the company's management and key executives.

Corporate Governance: Evaluating the shareholder rights, CEO compensation, board independence, and governance structure of the organization.

Economic Moat:

Competitive Advantages: Recognizing long-term competitive advantages-such as powerful brands, patents, unique technologies, or network effects-that safeguard the company's position in the market.

2.1.2.2 Quantitative analysis:

Financial statements analysis:

Income statement: An income statement, also known as profit and loss statement (P&L), is a financial report that summarizes a company's revenues, expenses, and profits or losses over a specific period of time, typically a quarter or a year. It provides valuable insights

into a company's financial performance by showing whether it made or lost money during the period covered. Some of the key components found in an income statements are:

Revenue: This is the total amount of money earned from sales of goods or services during the reporting period.

Cost of Goods Sold (COGS): This includes the direct costs attributable to the production of the goods sold by a company, such as materials and direct labor costs.

Gross Profit: Gross profit is calculated by subtracting the COGS from the revenue. It represents the amount of money left over after accounting for the direct costs associated with producing the goods or services sold.

Gross Profit (GP) = Revenue(R) - COGS

Operating Expenses: These are the costs incurred in the regular operations of a business, such as salaries, rent, utilities, marketing expenses, and depreciation.

Operating Income (or Operating Profit): Operating income is obtained by subtracting operating expenses from gross profit. It indicates the profit generated from a company's core business operations before considering interest and taxes.

Operating Profit (OP) = Gross Profit (GP) – Operating Expenses

Non-Operating Items: These include revenue and expenses not directly related to the core business operations, such as interest income or expense and gains or losses from investments.

Income Taxes: This represents the amount of taxes a company owes based on its taxable income for the period.

Net Income (Net Profit): Net income is the final item on the income statement. It is calculated by subtracting taxes and non-operating expenses from operating income. Net income reflects the total profit (or loss) generated by the company after all expenses, including taxes, have been deducted from revenues.

Net Profit (NP) = Operating Profit (OP) - (Non-operating expenses) – (Taxes)

The income statement is crucial for investors, analysts, and managers to assess a company's financial health and performance over time. It provides insights into profitability, operational efficiency, and the overall financial management of the business.

Balance sheet: A balance sheet is a financial statement that provides a snapshot of a company's financial position at a specific point in time, typically at the end of a quarter or fiscal year. It presents a summary of what a company owns (assets), what it owes (liabilities), and the difference between the two (equity) as of the balance sheet date. Some of the key components in balance sheet are:

Assets: Assets are resources owned by the company that provide future economic benefits. They are usually categorized into current assets (cash and cash equivalents, accounts receivables, inventory, prepaid expenses) which can be converted into cash within one year and non-current assets/Fixed Assets (Property, Plant, and Equipment, intangible assets-patents or goodwill, long-term investments, etc.) which are expected to provide economic benefits beyond one year.

Liabilities: Liabilities are obligations that the company owes to external parties, such as creditors or suppliers. Like assets, liabilities are categorized into current liabilities (Accounts payable, short-term loans, accrued expenses, current portion of long-term debt, etc.) which are due within one year and non-current liabilities (Long-term debt, deferred tax liabilities, pension obligations, etc.) which are due after one year.

Equity: Equity represents the net assets of the company that belongs to its owners. It is calculated as the difference between total assets and total liabilities.

Equity (E) = Total Assets (TA) – Total Liabilities (TL)

Equity includes common stock (represents initial capital invested by shareholder), retained earnings (accumulated profits or losses that have not been distributed to shareholders as dividends) and Additional paid-in capital (amount received from shareholders in excess of the par value of stock issued).

The balance sheet adheres to the accounting equation: Assets = Liabilities + Equity. This equation must always balance, ensuring that all assets are financed either by liabilities (debts) or equity (ownership interest).

Cash flow statement:

A cash flow statement is a financial statement that provides a summary of the cash inflows (receipts) and outflows (payments) of a business or an individual over a specific period of time. It helps in understanding how cash moves in and out of an entity, which is crucial for

assessing its liquidity, financial health, and overall operational efficiency.

Operating activities: This section reports cash flows from the primary activities of the business, such as sales and purchases of inventory, payment to suppliers, receipts from customers, and payments to employees. It essentially reflects the cash generated or used in the day-to-day operations of the business.

Investing activities: This section details cash flows from investments made by the business. It includes purchases and sales of long-term assets (like property, plant, and equipment), investments in securities of other entities, and loans made to other entities. Cash flows from investing activities indicate how the company is investing in its future growth.

Financing activities: The cash flows for the business's financing are displayed in this section. It covers dealings with the owners (buying back or issuing shares, for example), taking out and returning loans, and dividend payments. The company's financing activities' cash flows show how it finances its growth and operations.

The cash flow statement is important because it complements the income statement and balance sheet. While the income statement shows the profitability of a company and the balance sheet provides a snapshot of its financial position at a specific point in time, the cash flow statement reveals the actual cash movement, helping stakeholders understand the sources and uses of cash and assessing the ability of the entity to meet its obligations, invest in future growth, and return value to shareholders.

Financial ratios:

Profitability Ratios: Such as gross profit margin, operating profit margin, and net profit margin.

Liquidity Ratios: Including current ratio and quick ratio to evaluate short-term liquidity. Deb Ratios: Such as debt-to-equity ratio and interest coverage ratio to assess financial leverage and solvency.

Valuation Metrics:

Price-to-Earnings (P/E) Ratio: Compares the current market price of a stock with its earnings per share (EPS)

*Price-to-Book (P/B) Ratio***:** Compares a stock's market value to its book value (total assets – total liabilities).

*Dividend Yield**:*** Measures the annual dividend payment as a percentage of the stock's current price.

Discounted Cash Flow (DCF): Estimates the present value of future cash flows to determine intrinsic value.

Fundamental analysis is essential for stock trading because it provides investors with a thorough understanding of the underlying factors that drive a company's value and stock price. Here's how fundamental analysis helps in stock trading:

Assessing intrinsic value: Fundamental analysis helps traders estimate the intrinsic value of a stock based on its financial performance, earnings potential, and growth prospects. By comparing the calculated intrinsic value with the current market price, traders can identify stocks that are undervalued or overvalued.

Identifying growth opportunities: By analyzing a company's financial statements, industry position, and competitive advantages, traders can identify stocks with strong growth potential. This includes companies that are expanding market share, introducing innovative products, or entering new markets.

Evaluating financial health: Fundamental analysis allows traders to assess a company's financial health and stability. Key metrics such as debt levels, liquidity ratios, and profitability margins provide insights into the company's ability to withstand economic downturns and manage financial risks.

Understanding industry trends: By conducting industry analysis as part of fundamental research, traders can gain insights into broader trends affecting specific sectors. Understanding industry dynamics helps in selecting stocks that are well-positioned within growing or resilient industries.

Long-term investment decisions: Fundamental analysis is particularly valuable for traders who take a long-term investment approach. By focusing on a company's fundamentals and future growth potential, traders can make informed decisions that align with their investment objectives over an extended period.

Risk management: Fundamental analysis helps traders assess and manage risks associated with individual stocks or sectors. By understanding a company's financial position, market position, and competitive landscape, traders can make more informed decisions about risk exposure and portfolio diversification.

Valuation comparisons: Fundamental analysis provides a basis for comparing the valuation of different stocks within the same industry or sector. Traders can use valuation metrics such as P/E ratio, P/B ratio, and DCF analysis to evaluate relative attractiveness and identify stocks trading at a discount or premium compared to peers.

Reacting to news and events: Fundamental analysis equips traders with the knowledge to interpret and react to news, earnings reports, economic data releases, and other events that impact stock prices. This ability to analyze and interpret information in context helps traders make timely and well-informed trading decisions.

Overall, fundamental analysis provides a solid foundation for stock trading by offering insights into the financial health, growth potential, industry dynamics, and valuation of companies. It helps traders make informed decisions that are based on a thorough understanding of the factors driving stock prices and company performance.

2.1.3 Technical analysis

Technical analysis is a methodology used by traders and investors to evaluate securities and make investment decisions based on historical price and volume data. Unlike fundamental analysis, which focuses on financial statements, earnings, and economic indicators, technical analysis relies primarily on charts and statistical tools to identify patterns and trends in market prices.

Here are some key aspects and techniques involved in technical analysis:

Price charts: Price charts, which show the past price fluctuations of a security over time, are the cornerstone of technical analysis. Line, bar, and candlestick charts are examples of common chart types. Because they offer more precise details on price movements over a given time period, candlestick charts are especially well-liked.

Technical indicators: These computations are done mathematically using data on price, volume, or open interest. They support traders in recognizing market patterns, momentum, volatility, and possible turning points. Technical indicators include Bollinger Bands, MACD (Moving Average Convergence Divergence), relative strength index (RSI), and moving averages.

Support and resistance: Support levels indicate price ranges that a security has traditionally had trouble dropping below, suggesting a possible buying opportunity. Price levels known as resistance levels indicate a possible selling opportunity since they are

levels that a security has traditionally found it difficult to rise above. These levels are essential for trading decisions and are found by analyzing price charts.

Trend analysis: Price movements can be classified as uptrends, downtrends, or sideways (range-bound) trends by technical analysts. To determine a trend's strength and direction, they employ moving averages, trend lines, and other instruments. Buying in uptrends and selling (or shorting) in downtrends are two aspects of trend-following techniques.

Chart patterns: When examining price charts, technical analysts search for repeating patterns that can point to possible future price moves. Head and shoulders, double tops and bottoms, symmetrical, ascending, and descending triangles, flags, and pennants are examples of common chart patterns. Price continuations or reversals can be predicted using these patterns.

Volume analysis: Volume is the total number of contracts or shares that are traded in a security over a specific time frame. Volume is a tool used by analysts to validate a trend's strength. A price change with large volume, for instance, is seen as more meaningful than one with low volume since it indicates greater market activity.

Time frames: Technical analysis can be used for a variety of time periods, from long-term (weeks to years) to intraday (minutes to hours). Multiple time periods are frequently used by traders to validate signals and spot trends. While long-term investors may examine weekly or monthly charts, short-term traders might concentrate on intraday charts.

Risk management: Risk management is crucial in technical analysis. Techniques such as setting stop-loss orders (to limit potential losses) and calculating risk-to-reward ratios (to assess potential profits relative to potential losses) are used to manage risk effectively.

Overall, technical analysis is a versatile tool used by traders and investors to analyze price movements, identify trading opportunities, and manage risk. It's important to note that while technical analysis can provide valuable insights, it also has limitations and should ideally be used in conjunction with other forms of analysis, such as fundamental analysis and market sentiment analysis, to make well-informed investment decisions. Technical analysis is important because it provides traders and investors with valuable tools and insights to analyze price trends, identify trading opportunities, manage risk, and make informed decisions in financial markets. By understanding historical price patterns and using technical indicators, practitioners of technical analysis aim to gain a competitive edge

in their trading activities. Key importance of technical analysis are:

a) Main goals of technical analysis is to identify trends in the price movements of securities. By analyzing historical price data and using tools like trend lines and moving averages, technical analysts can determine whether a security is in an uptrend, downtrend, or moving sideways.

b) Technical analysis provides traders with specific entry and exit point based on chart patterns, technical indicators, and support/resistance levels.

c) Technical analysis helps traders implement risk management strategies by setting stop-loss orders and calculating risk-to-reward ratios.

d) Technical analysis can provide insights into market sentiment and investor psychology.

e) Technical indicators such as moving averages, MACD, RSI and Bollinger Bands help traders gauge momentum, trend strength, volatility, and overbought or oversold conditions.

f) Chart patterns such as head and shoulders, double tops and bottoms, triangles, flags, and pennants provide visual cues about potential future price movements.

g) Technical analysis can be applied across various time frames, from intraday trading to long-term investing.

h) While fundamental analysis focuses on analyzing financial statements, earnings, and economic factors, technical analysis complements this approach by focusing on price movements and market psychology.

Tools and Techniques to forecast the future direction of prices based on historical price and volume data. Here are some commonly used tools in technical analysis:

Charts: Charts provide analysts and traders with valuable information to identify trends, patterns, support and resistance levels, and potential trading opportunities. Here are some common types of charts used in technical analysis:

a. Line charts: A basic type of chart that displays the closing prices of a security over a period of time. It helps to connect closing prices with a line, making it easy to observe the overall trend.

b. Bar charts: Composed of vertical bars that represent the price range (high and low), opening price (left tick), and closing price (right tick) of a security for a specific period.

Useful for visualizing price movements within a specified timeframe and identifying patterns such as reversals or continuation signals.

c. Candlestick charts: Similar to bar charts but with a more visually informative representation of price action. Each candlestick represents the open, high, low and close prices for a specific period (e.g., day, hour). Candlesticks are colored differently (typically green for up days and red for down days) to quickly convey whether the price closed higher or lower than it opened.

d. Point and figure Charts: Uses X's and O's to represent price movements without considering time. Tracks changes in price direction (columns of X's for rising prices and columns of O's for falling prices) to identify support and resistance levels and potential trend reversals.

e. Renko charts: Focuses on price movements rather than time intervals. It consists of bricks that represent a fixed price movement (e.g., Rs100), only adding a new brick when the price moves beyond a specified range. It helps to filter out noise and identify trends based on significant price movements.

f. Heikin-Ashi charts: Modifies traditional candlestick charts to filter out noise and highlight trends more effectively. It uses average price data to create candlesticks, smoothing out price movements and making trends easier to identify.

Charts in technical analysis serve as the primary tool for visualizing price data and patterns, allowing analysts to make informed decisions about buying, selling, or holding securities based on historical price behavior. Traders often use a combination of different chart types and time frames to gain comprehensive view of market trends and potential trading opportunities.

Trend lines: A trend line is a straight line that connects two more price points and extends into the future to indicate the direction of the trend. Trend lines are powerful tools used to visualize and analyze trends in the price movement of financial assets. They help traders and analysts identify the direction and strength of a trend and can be instrumental in making trading decisions. Here's a detailed overview of trend lines and how they are used:

Types of trend lines:

a. Primary trend lines: These are major trend lines that connect major lows in an uptrend or major highs in a downtrend. They represent the main direction of the trend.

b. Secondary trend lines: It is also known as internal trend lines, these connect minor lows or highs within the primary trend. They can provide additional support or resistance levels within the trend.

Uses and Interpretation:

a. Identify trends: Trends line help traders identify whether a market is trending up, down, or moving sideways.

b. Support and resistance: In an uptrend, trend lines act as dynamic support levels. Conversely, in a downtrend, they act as dynamic resistance levels.

c. Trend reversals: Breaks or breaches of trend lines can signal potential trend reversals or changes in market sentiment.

d. Trading signals: Traders often look for opportunities to enter or exit trades based on the interaction of price with trend lines. For example, buying near an uptrend line or selling short near a downtrend line.

Tips for using trend lines effectively:

i. Confirmation: Wait for confirmation (e.g., Price action confirmation, volume confirmation) before relying solely on a trend for making trading decisions.

ii. Multiple timeframes: Draw trend lines on multiple timeframes to identify trends across different time horizons and validate their significance.

iii. Adjustment: Trend lines should be adjusted periodically to account for new price developments and to maintain their relevance.

Trend Lines are essential tools in technical analysis for identifying trends, support, resistance, and potential trading opportunities. Traders combine trend lines with other technical indicators and chart patterns to form a comprehensive analysis of market conditions and make informed trading decisions.

Support and resistance levels: Support levels are price levels where a downtrend can be expected to pause, stop, or reverse due to a concentration of buying interest. Support and resistance levels are key concepts in technical analysis that help traders and analysts identify potential price levels where a financial asset may encounter barriers to further

movement. Understanding these levels is crucial for making informed trading decisions. Here's a detailed explanation of support and resistance levels:

Characteristics:

i. **Price floor:** Support acts as a "floor" for the price, preventing it from falling further.

ii. **Buying interest:** Support levels often correspond to areas where buyers are willing to purchase the asset, believing it to be undervalued or attractive at that price.

Types of support

Horizontal support: A specific price level that has historically prevented the price from falling lower. It forms a horizontal line on a price chart.

Trend line support: A diagonal line drawn connecting higher lows in an uptrend or lower highs in a downtrend, indicating a supportive trend direction.

Traders often look for support levels to initiate buy orders or to place stop-loss orders to protect their positions. If a support level is broken decisively, it may indicate a weakening trend or potential for further downside.

Resistance levels: Resistance Levels are price levels where an uptrend can be expected to pause, stop, or reverse due to a concentration of selling interest.

Characteristics:

i. *Price ceiling:* Resistance acts as a "ceiling" for the price, preventing it from rising further.

ii. *Selling interest:* Resistance levels often correspond to areas where sellers are willing to sell the asset, viewing it as overvalued or less attractive at that price.

Types of resistance:

i. *Horizontal resistance**:*** A specific price level that has historically prevented the price from moving higher. It forms a horizontal line on a price chart.

ii. *Trend line resistance:* A diagonal line drawn connecting lower highs in a downtrend or higher lows in an uptrend, indicating a resistance to the trend direction.

Traders watch resistance levels for potential selling opportunities or to take profits on existing long positions. A breakout above a resistance level may suggest a continuation of the uptrend.

Point to know of both support and resistance level:

*Role in trading***:** Support and resistance levels help traders identify potential entry and exit points, as well as manage risk by setting stop-loss orders.

Dynamic nature**:** Support and resistance levels can change over time as market conditions evolve and new information becomes available.

Confirmation: Successful traders often look for confirmation through price action, volume, and other technical indicators when trading near support or resistance levels.

Psychological Impact: These levels often have psychological significance, as market participants react to them based on past price behavior and expectations of future movements.

Understanding support and resistance levels is essential for technical analysis, as they provide valuable insights into the behavior of market participants and can help traders anticipate potential price movements.

Moving averages: A moving average (MA) calculates the average price of a security over a specified number of periods, updating continually as new data becomes available. It smooths out short-term fluctuations and highlights longer-term trends. There are two types of moving averages Simple Moving Average (SMA) and Exponential moving average (EMA). Moving averages help traders identify the direction of the trend (whether it's bullish or bearish). It act as dynamic support and resistance levels. Prices often trend to bounce off MA lines, especially popular ones like the 50-day or 200-day SMA. When shorter-term Mas cross above or below longer-term Mas (e.g., 50-day crossing above the 200-day), it can signal potential trend reversals or continuations.

Simple moving averages (SMA): The SMA is the average price of a security over a specific number of periods, equally weighted for each period. For example, a 50-day SMA calculates the average closing price of the last 50 days.

Exponential moving average (EMA): The EMA gives more weight to recent prices, making it more responsive to recent price changes to the SMA. This is because it applies a greater weighting to more recent data points.

Short-term traders might use 5-day or 20-day Mas to gauge short-term trends and Long-term investors might refer to 50-day, 100-day, or 200-day MAs to understand longer-term trends. MA usage in trading strategies are Golden Cross and Death Cross (These occur

when shorter-term MAs cross above or below longer-term MAs, respectively, often seen as bullish or bearish signals and Moving Average Crossovers (Traders use crossovers of different MAs to trigger buy or sell signals.

Relative strength index (RSI): The Relative Strength index (RSI) is a momentum oscillator used in technical analysis to measure the speed and change of price movements. The RSI compares the magnitude of recent gains to recent losses in an attempt to determine overbought or oversold conditions of an asset. It is typically calculated using a 14-day period and represented as a number between 0 and 100.

$$RSI = 100 - \frac{100}{1+RS}$$

Where RS (Relative Strength) is the average of x days' up closes divided by the average of x days' down closes.

i. Upward price changes are used to calculate average gains.
ii. Downward price changes are used to calculate average losses.
iii. Typically, the default period for calculation is 14 periods, but this can be adjusted depending on the trader's preference and the timeframe being analyzed.

Interpretation on RSI

Overbought and Oversold Levels: RSI values above 70 are often considered overbought, indicating a potential sell signal. Conversely, RSI values below 30 are considered oversold, suggesting a potential buy signal.

Divergence: Divergence between price action and RSI can signal potential reversals. For example, if prices are making new highs while RSI is failing to surpass its previous highs, it could indicate weakening momentum.

Usage in trading

Confirmation of trends: RSI can confirm the strength of a trend. A strong uptrend typically shows high RSI values upward movements, while a strong downtrend shows low RSI values during downward movements.

Trading signals: Traders often use RSI crossovers of 70 (overbought) and 30 (oversold) as signals to enter or exit positions. For instance, a trader might consider selling when RSI crosses below 70 or buying when RSI crosses above 30.

The RSI is a widely used momentum oscillator that help traders identify overbought and oversold conditions in the market, confirm trends, and generate potential buy or sell signals. It's a valuable tool when used in conjunction with other technical indicators and fundamental analysis to make informed trading decisions. Traders can adjust the RSI period to suit different trading styles and timeframes. Shorter period (e.g., 9-day RSI) are more sensitive and generate more signals, while longer periods (e.g., 25-day RSI) are smoother and less sensitive.

MACD (Moving average convergence divergence): A trend-following momentum indicator that shows the relationship between two moving averages of a security's price. MACD is popular technical tool used by traders and analysts to identify trend and potential reversals in the price of an asset. It consists of three main components:

MACD line (Blue Line): This is the difference between two exponentially smoothed moving average, typically the 12-period EMA (Exponential Moving Average) and the 26-period EMA. The formula for the MACD line is:

MACD Line = EMA (12) – EMA (26)

Here, EMA stands for Exponential Moving Average.

Signal line (Red line):The signal line is a 9-period EMA of the MACD line. It is used to generate trading signals. The formula for the signal line is:

Signal Line = EMA(MACD Line, 9)

Histogram: The histogram represents the difference between the MACD line and the signal line. Its visually shows the distance between two lines over time, indicating whether the MACD line is above or below the signal line.

Interpretation of MACD:

Crossovers: When the MACD line crosses above the signal line, it is considered a bullish signal, suggesting that momentum may be shifting upwards. Conversely, when the MACD line crosses below the signal line, it indicates a bearish signal, suggesting potential downward momentum.

Divergence: Divergence occurs when the price of the asset moves in the opposite direction of the MACD indicator. Bullish divergence happens when the price makes a lower low while the MACD makes a higher low, indicating potential upward momentum. Bearish divergence occurs when the price makes a higher while the MACD makes a lower high,

suggesting potential downward momentum.

Overbought and oversold conditions:

Some traders use MACD to identify overbought and oversold conditions. When the MACD rises significantly, it may indicate that the asset is overbought and could be due for a correction. Conversely, a sharp drop in the MACD may suggest that the asset is oversold and could potentially rebound.

Practical Considerations:

Confirmation: Traders often look for confirmation from other technical indicators or chart patterns before making trading decisions based solely on MACD signals.

Timeframes: MACD can be used on different timeframes (e.g., daily, weekly) depending on the trader's strategy and investment horizon.

Limitations: Like all technical indicators, MACD is not foolproof and can provide false signals, especially in ranging or choppy markets. It's essential to use MACD in conjunction with other forms of analysis for better decision-making.

In summary, MACD is a versatile tool that provides insights into the momentum and direction of an asset's price movement. Traders use it to identify trends, reversals, and potential entry or exit points in the market.

Bollinger Bands:

A volatility indicator consisting of a moving average (typically 20 periods) and two standard deviations plotted above and below it. Bollinger bands are a popular technical analysis tool developed by John Bollinger in 1980s. They consist of three lines:

Middle Band (Simple Moving Average): Typically a 20-period simple moving average (SMA) of the price.

Upper Band: This is the middle band plus two times the 20-period standard deviation of price above the middle band.

Lower Band: This is the middle band minus two times the 20-period standard deviation of price below the middle band.

Key Concepts and Usage:

Volatility Measurement: Bollinger Bands expand and contract based on market volatility. When the bands widen, volatility is high; when they contract, volatility is low.

Support and Resistance Levels: The upper and lower bands can act as dynamic resistance

and support levels respectively. Prices tend to revert towards the middle band after touching or exceeding the outer bands.

Overbought and Oversold Conditions: When prices touch or exceed the upper band, the asset is considered overbought. Conversely, when prices touch or fall below the lower band, the asset considered oversold. This can signal potential reversal points.

Confirmation with other indicators: Traders often use Bollinger Bands in conjunction with other technical indicators to confirm signals. For example, combining with RSI (Relative Strength Index) can help identify strong reversal points.

Breakout Trading: Breakouts occur when the price breaks through either the upper or lower band, signaling a potential continuation of the current trend.

Interpretation Tips:

Band Width: The width between the upper and lower bands gives an indication of volatility. Wider bands indicate higher volatility, while narrower bands suggest lower volatility.

Squeeze: A squeeze occurs when the bands come close together, indicating low volatility and potential for a breakout.

Duration: Bollinger Bands effective across different time frames but are most commonly used on daily charts for swing trading and short-term analysis.

In summary, Bollinger Bands are versatile tools that provide insights into volatility, support/resistance levels, overbought/oversold conditions, and potential breakout opportunities in financial markets. They are widely used by traders and analysts for both identifying trading opportunities and managing risk.

Volume: The number of shares or contracts traded in a security or market during a given period. Volume is often used to confirm trends. Volume in technical analysis refers to the amount of trading activity in a stock, commodity, or other financial instruments over a given period. It is a crucial indicator used alongside price movements to analyze the strength or weakness of a trend, confirm trends or reversals, and gauge overall market sentiment. Here are key aspects of how volume is used in technical analysis:

Confirmation of price trends:

Volume and Price Movement: Typically, in an uptrend, increasing prices accompanied by rising volume confirm the strength of the trend. Conversely, decreasing prices with increasing volume in a downtrend signal strong selling pressure.

Divergence: When prices move in one direction (up or down) but volume trends in the opposite direction (decreasing in an uptrend or increasing in a downtrend), it may suggest weakening momentum and potential reversal.

Identifying reversal points:

Volume Climax: A sudden surge in volume often indicates a climactic action, where a trend might exhaust itself. This can signal potential reversal points.

Volume Divergence: When prices make a new high or low but volume fails to confirm (e.g., lower volume during a new high), it could signal a reversal.

Support and resistance levels:

Volume at Key levels: High volume at support levels may indicate strong buying interest, potentially reinforcing the support level. Conversely, high volume at resistance levels could suggest strong selling pressure, making it harder for prices to break above.

Breakouts and breakdowns:

Volume Confirmation: Breakouts or breakdowns accompanied by high volume are considered more reliable as they indicate strong participation and conviction behind the move.

Patterns and indicators:

Volume Patterns: Patterns such as volume spikes, volume clusters, or volume moving averages can provide additional insights into market behavior and potential future price movements.

*Volume Oscillators**:*** Indicators like On-Balance Volume (OBV), Chaikin Money Flow (CMF), and Accumulation/Distribution (A/D) lines use volume data to measure buying and selling pressure, aiding in trend analysis.

Practical Considerations:

Relative Volume: Comparing current volume with average volume over a specified period can help gauge the significance of current trading activity.

Context: Volume analysis is more meaningful when considered in the context of broader market conditions, news events, and fundamental analysis.

In conclusion, volume is a fundamental component of technical analysis, providing critical insights into market dynamics and helping traders make informed decisions about trends, reversals, support/resistance levels, and potential breakout opportunities.

Chart patterns: Chart patterns in technical analysis refer to distinctive formations that appear on price charts of financial assets, such as stocks, currencies, commodities, and indices. These patterns are believed to reflect underlying market psychology and can help traders predict future price movements. Here are some common chart patterns:

Reversal patterns:

Head and Shoulders: This pattern consists of three peaks, with the middle peak (head) being higher than the other two (shoulders). It indicates a potential reversal from an uptrend to a downtrend (or vice versa if inverted).

Double Top and Double Bottom: Double tops form after an uptrend, signaling a potential reversal to a downtrend. Double bottoms form after a downtrend, signaling a potential reversal to an uptrend.

*Triple Top and Triple Bottom***:** Similar to double tops and bottoms, but with three peaks or troughs instead of two, indicating a stronger potential reversal signal.

Continuation patterns:

Flags and Pennants: These are short-term continuation patterns that form after a strong price movement (flagpole). Flags are rectangular-shaped, while pennants are small symmetrical triangles. They suggest that the previous trend is likely to continue after a brief consolidation.

Triangles: Triangles can be symmetrical (indicating a period of consolidation before a continuation), ascending (bullish continuation), or descending (bearish continuation).

Wedges: Rising wedges are bearish continuation patterns, while falling wedges are bullish continuation patterns.

Consolidation patterns:

Rectangles: These patterns form when prices move between horizontal support and resistance levels. They indicate a period of consolidation before a potential breakout or breakdown.

Channels: Channels are formed when prices trend between two parallel trendlines (ascending channel for uptrends, descending channel for downtrends). They can indicate continuation of the trend until a breakout occurs.

Candlestick patterns: Candlestick patterns, such as doji, engulfing, hammer, and hanging man, provide insights into market sentiment and potential reversals or continuations based

on the patterns formed by the candlesticks.

How to use chart patterns:

Confirmation: Traders often wait for confirmation signals, such as a breakout above resistance or below support, before entering trades based on chart patterns.

Volume confirmation: Volume can provide additional confirmation of the validity of a pattern. For instance, a breakout accompanied by high volume is considered more reliable.

Timeframes: Chart patterns can appear on different timeframes (e.g., daily, weekly), and their significance may vary accordingly.

Combination with other indicators: Many traders combine chart patterns with other technical indicators (e.g., moving averages, RSI) to enhance their trading decisions.

In summary, chart patterns in technical analysis are visual representations of historical price movements that traders use to forecast future price directions. While they are not foolproof, understanding and recognizing these patterns can provide valuable insights into market trends and potential trading opportunities.

Fibonacci retracement levels: Fibonacci retracement levels are a popular tool in technical analysis used to identify potential support and resistance levels based on key Fibonacci ratios. These ratios are derived from the Fibonacci sequence, a mathematical pattern where each number is the sum of the two preceding ones (e.g., 0, 1, 1, 2, 3, 5, 8, 13, etc.). The Key Fibonacci retracement levels used in trading are:

i. 0.236 (23.6%)

ii. 0.382 (38.2%)

iii. 0.500 (50.0%)

iv. 0.618 (61.8%)

v. 0.786 (78.6%)

How fibonacci retracement levels work:

Identification: Fibonacci retracement levels are drawn between a high point and a low point on a price chart, typically after an uptrend or downtrend. The Fibonacci tool is available on most charting platforms, allowing traders to select the starting and ending points for the retracement levels.

Support and rsistance: These levels indicate potential support (in an uptrend) or resistance (in a downtrend) where the price might reverse or consolidate before continuing its

previous trend.

Psychological levels: Fibonacci ratios are believed to reflect natural levels of support and resistance based on human psychology and trading behavior.

Practical application:

Uptrend: To apply Fibonacci retracements in an uptrend, traders identify the recent low (swing low) and the recent high (swing high). They then draw Fibonacci retracement levels from the low to the high to identify potential support levels where buyers might re-enter the market.

Downtrend: In a downtrend, Fibonacci retracement levels are drawn from the recent high (swing high) to the recent low (swing low). These levels can indicate potential resistance levels where sellers might step in, preventing further price increases.

Combined with other tools: Traders often use Fibonacci retracement levels in conjunction with other technical indicators, such as moving averages, trend lines, and volume analysis, to confirm potential reversal points or to strengthen their trading decisions.

Fibonacci retracement levels are a valuable tool in technical analysis for identifying potential support and resistance levels based on Fibonacci ratios. They help traders anticipate where price reversals or consolidations might occur, allowing for better entry and exit points in trading decisions. However, like any technical tool, Fibonacci retracements should be used in conjunction with other indicators and analysis methods for more robust trading strategies.

Candlestick patterns: Candlestick patterns are a fundamental component of technical analysis that traders use to analyze price movements and make trading decisions. These patterns are formed by the arrangement of one or more candlesticks (which represent price movements over a specified time period) and are categorized into bullish, bearish, and neutral patterns. Here are some common candlestick patterns:

Single candlestick patterns:

Doji: A doji has the same open and close prices, indicating indecision in the market. It suggests a potential reversal when it appears after a strong trend.

Hammer and Hanging Man: These patterns have a small body near the top (hammer) or bottom (hanging man) of the candlestick, with a long lower shadow. Hammers occur after a downtrend and suggest a potential reversal to the upside, while hanging men occur after

an uptrend and suggest a potential reversal to the downside.

Shooting Star and Inverted Hammer: These patterns have a small body near the bottom (inverted hammer) or top (shooting star) of the candlestick, with a long upper shadow. They indicate potential reversals.

Two-candlestick patterns:

Bullish/Bearish engulfing: A bullish engulfing pattern occurs when a large bullish candle completely engulfs the previous smaller bearish candle. It suggests a potential reversal to the upside. A bearish engulfing pattern is the opposite, indicating a potential reversal to the downside.

Piercing line/Dark cloud cover: The piercing line pattern occurs when a bullish candlestick closes above the midpoint of the previous bearish candlestick. It suggests a potential reversal to the upside. The dark cloud cover pattern is the opposite, indicating a potential reversal to the downside.

Three-candlestick patterns:

Morning Star/Evening Star: The morning star pattern consists of three candles - a bearish candle, followed by a small bullish or doji candle (the star), and followed by a bullish candle that closes beyond the midpoint of the first candle. It suggests a potential reversal to the upside. The evening star pattern is the opposite, indicating a potential reversal to the downside.

How to use candlestick patterns:

Confirmation: Candlestick patterns are most effective when confirmed by other technical indicators, such as volume, trendlines, or moving averages.

Contest: Consider the timeframe and market conditions when interpreting candlestick patterns. Patterns that form on longer timeframes tend to be more reliable.

*Combination with other tools**:*** Many traders combine candlestick patterns with other forms of technical analysis to strengthen their trading decisions.

Pattern Recognition: Regular practice and familiarity with various candlestick patterns help traders quickly identify potential trading opportunities.

Candlestick patterns provide valuable insights into market sentiment and potential future price movements. While they are not foolproof indicators, understanding and correctly identifying these patterns can enhance a trader's ability to predict trends, reversals, and

market psychology. Traders should use candlestick patterns in conjunction with other forms of technical and fundamental analysis for a well-rounded trading strategy.

On-balance volume (OBV): A technical trading momentum indicator that correlates volume to price change, signaling whether buying or selling pressure is dominating the market. On-Balance Volume (OBV) is a technical analysis tool rather than a fundamental analysis tool. It was developed by Joseph Granville and is used to measure the cumulative volume flow of a security. Despite being a technical tool, OBV can still provide valuable insights for traders and investors looking to analyze price trends and confirm trends indicated by fundamental analysis.

How on-balance volume (OBV) works:

Accumulation vs. Distribution:

OBV calculates a running total of volume, adding volume on up days and subtracting volume on down days. This cumulative total is represented as a line on the price chart.

If the price closes higher than the previous close, the day's volume is added to the OBV.

If the price closes lower than the previous close, the day's volume is subtracted from the OBV.

Interpretation:

Confirmation of trends: When the OBV line is trending upwards and making higher highs along with rising prices, it confirms an uptrend.

Divergence: If OBV is moving contrary to the price trend (e.g., price is rising but OBV is falling), it may signal a potential reversal.

*Volume Precedes Price**:*** Granville's theory suggests that changes in OBV precede price changes, making it a leading indicator of price movements.

Uses in stock trading:

Confirmation: Traders use OBV to confirm price trends identified by other technical and fundamental analysis tools.

Divergence: OBV divergence can be used to anticipate potential reversals in price trends.

Breakouts: OBV can help confirm the strength of breakouts or breakdowns, especially when accompanied by high volume.

Relationship to fundamental analysis: While OBV itself is a technical indicator, its use

can complement fundamental analysis in several ways:

Volume confirmation: Fundamental analysts often look at trading volume to confirm the strength of price movements suggested by their fundamental research. OBV provides a systematic way to analyze volume trends.

Market sentiment: Changes in OBV can reflect shifts in market sentiment that may not be immediately evident from fundamental data alone. For example, increasing OBV during a period of positive news could indicate growing investor interest beyond what is reflected in financial statements.

Technical-fundamental integration: Traders and investors often use OBV alongside fundamental analysis to validate their investment decisions. For instance, if fundamental analysis suggests a bullish outlook for a stock, rising OBV could provide additional confirmation of potential upward momentum.

In summary, while On-Balance Volume (OBV) is primarily a technical analysis tool used to measure volume flow, its integration with fundamental analysis can provide a more comprehensive view of market dynamics and help traders make informed decisions.

These tools are used in combination to analyze historical price movements and volume to predict future price movements in financial markets. Traders and analysts often develop their own strategies using a mix of these tools based on their trading style and market conditions.

2.2 Empirical review

The available studies which are related to this topic “Role of fundamental and technical analysis on stock trading” have been reviewed here. This research has been written after studying different book, journals, articles, websites and previous thesis. It has been observed that there are many factors that affects the stock trading decision among them fundamental and technical factors are two of them. Some of the research done on these fundamental and technical analysis are reviewed below:

(Blume, Easley, & O'Hara, 1994) assessed the investigation on how technical analysis can be valuable to traders in an economy in which the only uncertainty arises from the underlying information structure. Technical analysis is valuable because current market statistics may be sufficient to reveal some information, but not all because the underlying uncertainty in the economy is not resolved in one period, sequences of market statistics can

provide information that is not impounded in a single market price. Important role is played by volume. Volume provides information in a way distinct from that provided by price. Price impounds information about the average level but volume captures the important information contained in the quality of traders' information signals. Volume plays a role beyond simply being a descriptive parameter of the trading process. Potential applications of technical analysis for small, thinly followed stocks, it seems likely that even in active markets volume may play an important role. The existence of the Dow-Jones "Rumor Wire" suggests that even "bad" information can affect stock prices, so that using the information conveyed by volume may be particularly useful to traders operating in such volatile markets.

(Park & Irwin, 2007) measured the results of early studies vary from market to market. In general, early studies of stock markets show limited evidence of the profitability of technical trading rules, while studies of foreign exchange markets and future markets frequently find sizable net profits. Modern studies improve upon the limitations of early studies and typically increase the number of trading systems tested, assess risks of trading rules, perform statistical tests with either conventional statistical tests or more sophisticated bootstrap methods, or both, and conduct parameter optimization and out-of-sample verification. Under chaos theory, technical analysis may be equivalent to a method for non-linear prediction in a high dimension system. Various empirical factors, such as central bank interventions, clustering of order flows, temporary market inefficiencies, time-varying risk premiums, market microstructure deficiencies, and data snooping biases, have also been proposed as the source or explanation for technical trading profits.

Sabrirajan (2015) examined for investing in all sectors and companies, a very high proportion of respondents place some weight on both fundamental and technical analysis while forming views. While investing in conventional companies such as banking, cement, pharmacy, steel and fertilizers the respondents have chosen conservative fundamental analysis over the technical analysis. The investments in modern sectors such as, information technology, telecom, real estate, food products, etc. have attracted contribution of technical analysis. There is no definite answer about whether technical analysis should be used as a substitute to fundamental analysis, but many agree that it has its merits when used as a compliment to other investing strategies.

Petrusheve and Jordanoski (2016) assessed and found that Technical and fundamental analysis are seen as total opposites in the world of investment. However, many investors and traders have managed to combine them and achieve successful results. Investors who apply mainly fundamental analysis, can use technical analysis to determine the exact time when to make a transaction, whether it's buying or selling. Since technical analysis is primarily a market timing tool, it can be implemented effectively in conjunction with fundamental analysis. The proper assessment of the time to enter into the investment opportunity can sometimes be more important and the investment itself. Therefore, the best advice would be to study the fundamental factors, make the investment decision and use the technical analysis to determine the time of purchase or sale. Investors who use mainly technical analysis can benefit by technical analysis on conforming investor's assessment by analyzing important fundamentals to know the company's financial position.

Pawar (2019) examined and Found that only 55% of traders make use of only technical analysis and 47% of investors make use of only fundamental analysis which rose the question of why investors doesn't use both technical and fundamental analysis for investment and trading? 32% explain that high number of indicators complicates the style of trading. The traders and investors must analyze the stocks and market according to personal comfort rather than accepting different suggestions. 19% of the total fundamentalists and chartists believe that either only technical analysis is better or only fundamental analysis is better, without even trying the other. Half of both, the chartists and fundamentalists tend to try including certain fundamental analysis indicators and certain technical analysis indicators respectively to their usual technique of analyzing the stocks.

(Luckieta, Amran, & Alamsyah, 2020) examined the higher the value of ROA means, the better the condition of the company is using its assets to make a profit: with increasing ROA, the profitability will increase. Likewise, the higher the EPS value will undoubtedly attract investors to invest their shares. An increase in EPS will be received in the market as a good signal for investors. EPS partially positive effect on stock prices on manufacturing companies that enter and survive in the calculation of the LQ45 Index on Indonesia Stock Exchange for the period 2013-2017, so it can be concluded that EPS affects stock prices. PER has a partially positive effect on the price of share in manufacturing companies that enter and survive the calculation of the LQ45 Index on the Indonesia Stock Exchange for

the period 2013-2017. The increase in PER will affect the increase in stock prices. ROA, EPS, PER, and DER simultaneously influence the stock prices of manufacturing companies that enter and survive in the calculation of the LQ45 Index on the Indonesia Stock Exchange for the period 2013-2017.

(Simanjuntak, Putri, & Muda, 2023) stated Basic knowledge about investment is the first step when intending to trade shares in the capital market. Experience when conducting stock transactions including stock exchange schedules, systems on each security that aims as a medium of mental training when the market is actively transacting. Seeking profit in the form of capital gains and dividends is considered more profitable than the interest given by the bank. Individual investors use fundamental analysis as a means of earning passive income from dividend distribution and growth in company value. Technical analysis is used by informants to make profits in the short term, as a buy and sell indicator when investing in order to get right price, technical analysis is also used as a means to observe transaction behavior in the capital market, and technical analysis indicators are easier to understand than calculating the ratio of financial statements. Rewards in technical analysis only focus on capital gains because trading is carried out in a short tie with high profits but with higher risk than using fundamental analysis. The psychology of stock investors can be objective in conducting stock analysis and controlling emotions. Informants make a subjective assessment that market value is more important than the intrinsic value of stocks and it is natural for investors to simply follow market price trends due to profit considerations.

Table: 1

Summary of review

SN	Authors	Dependent Variables	Independent Variables	Methodology	Major Findings
1	Simanjuntak, Putri and Muda (2023)	Investment Decision	The influence of technical and fundamental analysis	Descriptive, Primary, Content,etc	Investors do not have well enough accounting skills, but investment decisions positively affect the social influence of investment intentions made by an individual and the existence of external perceptions or information can also motivate the intention to invest.

2	(Arora & Patel, 2022)	Trading decision	Role of technical analysis	Descriptive, Secondary, Quantitative, etc.	Technical tools definitely play an important role in the decisions of the investors. MACD, RSI, ROC, etc. helps to make right decision to buy or sell the stocks.
3	Nti, Adekoya and Weyori (2020)	Stock market predictions	Fundamental and technical analysis	Descriptive, Applied, Longitudinal, etc.	Machine learning algorithms for stock prediction can be used for perfect timing of investing in the stock market.
4	Pramudya and Ichasmi (2020)	The stock trading	Efficiency of Technical analysis	Descriptive, Secondary, Conclusive, Analytical, etc.	Introduction of technical tools like MACD, Bollinger band, RSI, etc. and found that MACD acts too slow in capturing buy and sell signals compared to Bollinger bands and RSI.
5	Luckieta, Amran and Almasyah (2020)	Stock prices	Fundamental analysis	Descriptive, Secondary, Quantitative, etc.	ROA, EPS, DER, PER, etc are used in fundamental analysis.
6	Pawar (2019)	Trading and Investing	Technical and fundamental analysis	Descriptive, Secondary, conclusive, applied, etc.	Why people rarely use the complementing nature of technical and fundamental analysis, both together
7	(Picasso, Merello, Ma, Oneto, & Cambria, 2019)	Market trend	Technical analysis and sentiment	Descriptive, primary, Content, quantitive, etc	Rebust model is to effectively and fairly classify both positive and negative trends in the portfolio of stocks under this study.
8	(Agustin, 2018)	The Stock Price	Fundamental and technical analysis	Descriptive, primary, Quantitative, etc	Fundamental and technical analysis could serve as complements rather than substitutes in equity valuation exercise.
9	(Nugroho & Farida, 2017)	Investment	Fundamental analysis vs Technical analysis	Descriptive, Secondary, Mixed, etc	Experienced investor can significantly affect the electoral investment analysis and frequency of trading investors does not significantly influence the selection of investment analysis method.

10	Petrusheva and Jordanoski (2016)	Stocks	Fundamental and technical analysis	Descriptive, Secondary, etc	Fundamental and technical analysis don't lead to different investment decisions. In fact, both have their advantages and disadvantages and both combined gives optimum results.
11	Sabarirajan (2015)	Share valuation	Fundamental analysis	Descriptive, Primary, Questionnaire, etc	For investing in all sectors and companies, a very high proportion of respondents place some wight on both fundamental and technical analysis while forming views.
12	(Baresa, Bogdan, & Ivanovic, 2013)	Stock valuation	Fundamental analysis	Descriptive, primary, Content, etc	Fundamental analysis is not only to find a successful company, the aim is to find the companies that are worth more than other investors estimate.
13	(Wong, Manzur, & Chew, 2010)	Reward	Technical analysis	Quantitive, Descriptive, Primary, etc	Single moving averages produce the best results, followed by the dual moving average and the relative strength index using 50 crossover method.
14	(Abad, Thore, & Laffarga, 2004)	Stocks	Fundamental analysis	Descriptive, Content, Conclusive, etc	When a manipulator can trade in the presence of other traders who seek out information about the stock's true value.These information seekers or arbitrageurs play a vital role in sustaining manipulation.
15	(Fama, 1965)	Stock market price	The behavior	Descriptive, primary, Quantitative, etc	The fact that large changes tend to be followed by large changes may not be information which yields profits to chart readers; but it may be very important to the economist seeking to understand the process of price determination in the capital market

2.3 Research Gap

Many scholars have studied the factors affecting the stock trading, among them fundamental and technical factors are most commonly researched topic. Fundamental analysis and its role on stock trading is very important because it gives the investors true financial health of any public organization in the same way technical analysis gives the right time to entry or exit from the market.

On this note many tools used in fundamental and technical analysis are also studied by many scholars on their journals, articles, book, etc. While there's been many studies but still most of the investors or traders doesn't apply the fundamental and technical analysis while trading in capital market. Capital market is the place where one investor has to loss the money for someone else to earn money because one sells then another investor buys. New investors enters in the capital market influenced by social media where traders tells their story of earning good amount of profit from stock trading but new investors doesn't know the how many times that traders have lost their money to earn the money. Before entering in the capital market investors have to know the fundamental things about the company and if investors wants to be traders to trade frequently in the capital market then technical tools will be helpful for traders.

Scholars have published the articles, books, journal, dissertation, etc. explaining either fundamental tools or technical tools but using together for stock trading have not been prioritized. For that reason this dissertation have been done to explain the role of fundamental and technical analysis on stock trading. This study may be related to other studies too but new findings and experience of traders who uses both fundamental and technical analysis will discussed and hope this research will be helpful to the future researchers for reference.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology aids in determining the applicability, validity, and correctness of the findings. It is impossible to gain the true findings without the assistance of appropriate research methods. For the purpose of achieving the objectives of study, the applied methodology will be used. Research methodology describes the methods processes applied in the entire aspect of the study. It includes all the procedures from theoretical framework to the collection and analysis of the data. As most of the data are quantitative the research is based on the specific models. It is composed of both parts of technical aspect and logical aspect, on the basis of historical data. Research is systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering recording, classifying, analyzing and interpreting the data with the purpose of finding answer to the problem. Thus the entire process by which we attempt to solve problems is called research.

3.2 Research Design

The process of organizing and conducting a research study is referred to as research design. Research design is a conceptual framework within which a research is conducted. It is a guideline studying profound ways of research ability. It sets the parameters for the study and also defines the criteria for the evaluation of the result and draw the conclusion of the study. This research is based on secondary dat. To achieve the objective of this study, descriptive and causal comparative research design has been used. A descriptive research design refers to process of describing what current conditions or attitudes exist at the moment, the analytical surveys describe and explain why certain situations exist and causal comparative describes cause- effect relationship between independent and dependent variables.

3.3 Population, sample and sampling design

Population is the group of interest of the research on which the results of the study can be generalized. All the stocks listed in the capital market of Nepal (NEPSE) are population and top five companies on the basis of market capital capitalization are sample. Sampled

companies are NTC, Nabil, CIT, NRIC and GBIME as per June 27, 2024. Systematic sampling is used to collect the five stocks listed in NEPSE.

3.4 Nature and sources of Data

The research is based on secondary as well as primary as per the objective and requirement of the study. Although research is mainly based on the secondary data. The secondary data have been collected from different bulletins, newspapers, journals, economic survey, research works, and notes, published in internet and different websites. The primary data have been collected through interviews to the related market exports.

Secondary data

The quantitative analysis of the study is performed by the secondary data. These data are collected from the report, news, articles, research works, etc. where journey of a traders and tools they've used are mentioned. Internet has been the important source for the collection of data.

3.5 Data collection technique

The research contains a secondary data. To collect the secondary data, published materials are viewed in various spots such as books by different authors, unpublished thesis reports, journals, internet web sites, online library, etc. To collect primary data scheduled questionnaire and interview are used.

3.6 Data processing

Data so obtained have no meaning unless they are arranged and presented in a systematic way. Data processing technique is one of the most important parts of the research study. The researches should adopt that data processing technique to process the information and data which is suitable and feasible according to nature and objectives of the research study. The readers should be able to quickly understand the various way in which the accessible information and data are presented. In this study, the required available data and information are shown in figures, charts, bar graphs, etc. The computation has been done with the help of calculator and computer.

3.7 Data presentation and analysis

Presentation and analysis of the available data is the major task of the study. Analysis is the careful study of available facts so that one can understand and draw conclusion from them on the basis of established principles and sound logic. The methods of analysis are applied

as simple as possible so that the non-professionals and the students can understand is easily. Every result is tabulated and clear interpretations on it are given simultaneously. Data are presented in tabular, graphical and chart wherever necessary and possible. As it is based on the traders' behavioral, tools and analysis of both fundamental and technical analysis are presented in every possible way to readers to understand it better.

3.8 Data analysis tools

Data analysis includes turning out a series of recorded observation into a fine descriptive statement. (Hollweck, 2014). Various financial, technical tools and statistical tools to be used in this study. The analysis of data will be done according to the nature of data available. Mainly the analysis will be done by using the financial tools used in financial analysis, technical tools used in technical analysis and other calculations will be done using simple statistical analysis.

3.8.1 Fundamental Tools

I. Earnings Per Share (EPS)

EPS is a fundamental tool used to calculate the earning capacity and to make comparison between the other stocks. It is key indicator for investors and analysts in evaluating the financial health and performance of a company. EPS is defined as the result of net profit after tax by number of share outstanding.

$$\text{EPS} = \frac{Net\ Profit\ After\ Tax}{No.of\ Shares\ Outstanding}$$

Note: If EPS is more than 10 then it is considered as good company.

II. Price Earnings Ratio (P/E Ratio)

Price-to-Earning (P/E ratio) is a fundamental financial metric used by investors to assess the valuation of a company's stock relative to its earnings.

$$\text{P/E Ratio} = \frac{Market\ Price\ Per\ Share\ (MPS)}{Earnings\ Per\ Share\ (EPS)}$$

Note: EPS between 10 and 30 is considered as a good company.

III. Book Value Per share (BVPS)

BVPS is a financial tool that represents the value of a company's equity (shareholders' equity) per outstanding share of common stock. It provides insight into what shareholders

would theoretically receive if the company were liquidated and all of its assets were sold at their book value prices after paying off all liabilities.

$$\text{BVPS} = \frac{Total\ Assets\ of\ a\ company - Total\ liabilities\ of\ a\ company}{Number\ of\ shares\ outstanding}$$

Note: Company's BVPS less then Par value is not good to invest on.

IV. Price-to-Book value (P/B ratio)

This ratio is used by investors to evaluate the valuation of a company's stock relative to its book value per share.

$$\text{P/B Ratio} = \frac{Market\ price\ per\ share}{Book\ value\ per\ share(BVPS)}$$

V. Dividend Per Share (DPS)

DPS indicates the part of earning distributed to the shareholders on per share basis and calculated by dividing the total dividend to equity shareholders by the number of equity shares.

$$\text{DPS} = \frac{Total\ Dividend}{No.of\ Common\ stock\ outstanding}$$

VI. Dividend Pay-out Ratio (DPR)

DPR is calculated to indicate percentage of the profit on share that is distributed as dividend. Using following DPR can calculate;

$$\text{DPR} = \frac{Divident\ Per\ Share}{Earning\ Per\ Share}$$

And, Retention Ratio = 1-DPR

VII. Earning Yield

Earning yield and dividend yield are expressed in terms of the market value per share. Earning yield and dividend yield are two important profitability ratios from the point of view of the shareholders.

$$\text{Earning Yield} = \frac{Earning\ Per\ Share}{Market\ Value\ Per\ Share}$$

VIII. Dividend Yield

The dividend yield reflects percentage relationship between dividend per share and market value per share of a company. It can be expressed as,

$$\text{Dividend Yield} = \frac{Divident\ \ Per\ \ Share}{Market\,Value\,Per\,Share}$$

IX. Compounding Annual Growth Rate (CAGR)

CAGR is the mean annual growth rate of an investment over a specified period of time longer than one year. It represents one of the most accurate ways to calculate and determine returns for individual assets, investment portfolios and anything that can rise or fall in value over time.

$$\text{CAGR} = \left(\frac{V\ final}{V\ beginning}\right)^{\frac{1}{t}} - 1$$

Note: CAGR > Inflation (of any nation) then its stock is save to buy.

X. Return on Equity (ROE)

Return on equity (ROE) is a financial ratio that measures the profitability of a company in relation to the equity held by its shareholders. It can be calculated as:

$$\text{ROE} = \frac{Net\ Income}{Shareholder's\ Equity} \times 100$$

Where:

* Net income is the company's profit after taxes and other expenses.

* Shareholders' equity, also known as book value, is the difference between a company's assets and liabilities as reported on the balance sheet.

3.8.2 Technical Tools

I. Moving Averages (MA):

MA are widely used to smooth out price data and identify trends over a specified period. There are different types of moving averages (simple exponential, weighted) but the formula for the simple moving average (SMA) is the most straightforward and commonly

used. Simple moving average (SMA) can be expressed as:

$$\text{SMA} = \frac{Sum\ of\ Closing\ prices\ for\ a\ period}{Number\ of\ periods}$$

II. Relative Strength Index (RSI):

RSI is a momentum oscillator used in technical analysis to measure the speed and change of price movements. It oscillates between 0 and 100 and is typically used to identify overbought or oversold conditions in a stock or asset. RSI is calculated using:

$$\text{RSI} = 100 - \frac{100}{1+RS}$$

Where,

RS (Relative Strength) is calculated as the average of x days' up closes divided by the average of x days' down closes.

III. Moving Average Convergence Divergence (MACD):

MACD is a popular trend-following momentum indicator used in technical analysis to identify changes in the strength, direction, momentum, and duration of a trend in a stock's price. The MACD indicator consists of three components: the MACD line, the signal line, and the histogram. Here's how each component is calculated:

MACD = 12-period EMA – 26-period EMA

Where,

* EMA stands for Exponential Moving Average.

* 12- Period EMA is the Exponential Moving Average of the closing prices over the last 12 periods.

* 26-period EMA is the Exponential moving average of the closing prices over the last 26 periods.

IV. Bollinger Band:

Bollinger Bands are a technical analysis tool developed by John Bollinger. They consist of a middle band (typically a simple moving average), an upper band, and a lower band that are plotted two standard deviations away from the middle band. Bollinger Bands are used to measure volatility and identify potential overbought or oversold conditions in a

stock or asset.

Middle Band (MB) = Simple Moving Average

(SMA) Upper Band (UB) = MB+ (2×SD)

Lower Band (LB) = MB – (2×SD)

Where, SD is the standard deviation of closing prices.

V. Support and Resistance:

Support Level: This is a level at which the price of a stock does not fall down any further. The price is likely to bounce back and moves up in the opposite direction. This is a level where the demand from buyers is expected to be much higher than that of the supply from sellers.

Resistance Level: A resistance level is the opposite of a support level. It is a price point (ceiling) at which the stock price is not expected to rise any higher. This is a price point at which there are more sellers than buyers in the market for the particular stock.

3.9 Research framework and definition of variables

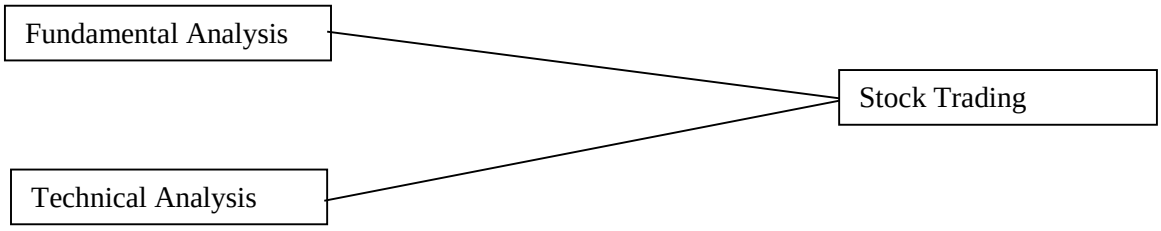
Research Framework

Research Framework gives the away from of the research project. It assists with discovering why the research problem under the study exists. It assists with understanding the hypothesis and the idea that is identified with subject of examination and identified with the border subject matter to be thought of.

Figure: 1

Conceptual Framework

Independent Variables **Dependent Variable**



Source: (Pawar, 2019)

i. **Stock Trading:** Stock Trading simply refers to any buying and selling of publicly listed stocks, generally used to refer to more short-term investments made by very active investors. Stock trading is a difficult and risky enterprise, but with education, traders can work to lower risk and increase the profit. Frequency of trading is determined by the confidence of traders and for traders they used fundamental and technical analysis for their assurance.

ii. **Fundamental Analysis:** Fundamental analysis is a method of evaluating a security by attempting to measure its intrinsic value by examining related economic, financial and other factors. Fundamental analysis provides a detailed understanding of a company's financial health, its operational efficiency, and its potential for growth.

iii. **Technical Analysis:** Technical analysis is a method of evaluating securities based on statistical analysis of historical price and volume data. Unlike fundamental analysis, which focuses on evaluating a company's financial health and intrinsic value, technical relies primarily on charts and patterns to predict future price movements. Technical analysis is widely used by traders and investors to make short term decision on stock trading.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter is the backbone of the research. In this chapter, the secondary data is presented in systematic manner. The sources of data were company brochure, annual reports, Nepseapha website, Nepse website, journals, library and banks. Collected data are presented in systematic formats and analyzed using different appropriate tools and techniques. Financial data and technical charts are presented in the tabulated form and analyzed through descriptive statistical analysis.

4.1 Fundamental and Technical analysis tools and indicators

Indicators like market capitalization, EPS, PE ratio, PB, ROE and Book value are taken as fundamental tool. Technical tools like moving average, RSI and Bollinger bands are used as a technical analysis indicators. Stocks are taken according to the market capitalization.

4.1.1 Fundamental and Technical analysis of NTC

Table: 2

Financial indicators of NTC

SN	Indicators	Value in (Rs, %)
1	Market Capitalization (Rs)	1,46,32,20,00,000.00
2	EPS (Rs)	44.37 (Book close Adjusted) 41.44 FY-080-081/Q3
3	PE (%)	18.32 (3-5 Yrs Avg: 13.92)
4	PB (%)	1.58 (3-5 Yrs Avg: 1.16)
5	ROE (%)	8.56
6	Book Value (Rs)	512.99 (Book Close Adjusted)
7	Dividend (%)	40% (79-80) 40%(78-79)

Source: nepsealpha.com

Table 2 shows the financial status of NTC current period because while trading recent data is enough to take the decision on stock trading. The table shows NTC is the biggest company listed in the NEPSE with Rs.1.46 Kharba market capitalization which has EPS of Rs. 44.37 as per book close adjusted and Rs 41.44 as per 3rd quarter report of fiscal year 2080-81. Company who's EPS is more than 10 then it is considered good company. Looking at NTC's EPS is has really good EPS. PE ratio between 10- 30 is considered as good company. NTC's PE being 18.32 % and last 5 year average 13.92% makes it strong company. 1.58% and on an average of last 5 years 1.16%, Price to book value (PB) makes it better company because PB less than 5% is considered as a good company to invest on. Return on Equity (ROE) greater than 10% is considered good company but in this case NTC ROE is just 8.56% which is less than required percentage. With book value being more than Rs. 500 and consistence 40% dividend makes NTC better company.

In case of Technical analysis there are many indicators but here in this research work only 3 indicators are used. Moving Averages, RSI and Bollinger Band.

Figure 2

Technical Analysis of NTC

Source: nepsepalpha.com

Figure 2 shows that moving average is above the candle stick chart. 200 day moving average price of NTC is 858.78. Moving average of 200 days shows that NTC's price is in bearish phase. As per June 27, 2024 Market Price of a NTC is 812.90. In such case traders sell the stock if moving average is used as indicator. RSI is also movement indicator which helps to evaluate the overbought and oversold condition of a stock. Parameter of RSI is 14 days. In graph 4.1 RSI is 35.85 which shows that NTC stock is undervalued and oversold and there is chance of reversal. Next is Bollinger bands which are volatility indicator and used to measure the overbought and oversold conditions. In graph 4.1 Bollinger band of 20 days shows that Bands are shrinking and it's not coming to 20 days moving average. When Bollinger bands are shrinking then it is better to sell the stock.

Decision: After analyzing the both fundamental and technical indicators it assesses us that for the long term, buying NTC is beneficial because of its strong fundamental values where as technical chart shows that NTC should be wait and watch.

4.1.2 Fundamental and technical analysis of Nabil

Table: 3

Fundamental Indicators of Nabil

SN	Indicators	Value in (Rs, %)
1	Market Capitalization (Rs)	1,23,37,99,07,072.40
2	EPS (Rs)	26.16 (Book close Adjusted) 23.00 FY-080-081/Q3
3	PE (%)	17.43 (3-5 Yrs Avg: 28.88)
4	PB (%)	2.19 (3-5 Yrs Avg: 3.90)
5	ROE (%)	12.50
6	Book Value (Rs)	208.39 (Book Close Adjusted)
7	Dividend (%)	11% (79-80) 30%(78-79) 38%(77-78)

Source: nepsealpha.com

Table 3 it shows the financial condition of Nabil current period. The table shows Nabil is the Second biggest company listed in the NEPSE with Rs.1.23 Kharba market capitalization which has EPS of Rs. 26.16 as per book close adjusted and Rs 23.00 as per 3rd quarter report of fiscal year 2080-81. Company who's EPS is more than 10 then it is considered good company. Looking at Nabil's EPS is has really good EPS. PE ratio between 10- 30 is considered as good company. Nabil's PE being 17.43 % and last 5 year average 28.88 % makes it strong company. 2.19 % and on an average of last 5 years 3.90 %, Price to book value (PB) makes it better company because PB less than 5% is considered as a good company to invest on. Return on Equity (ROE) greater than 10% is considered good company, Nabil's ROE is 12.50% which makes it good company if it is compared to ROE rate. ROE more than 10 is considered as a good company. With book value being more than Rs. 200 and dividend 11% last year and more than 30% in 2079-2080 and 2077-2078 makes Nabil financially better commercial bank.

In case of Technical analysis there are many indicators but here in this research work only 3 indicators are used. Moving Averages, RSI and Bollinger Band.

Figure: 3

Technical Analysis of Nabil

Source: nepsealpha.com

Figure 3 shows that moving average is above the candle stick chart. 200 day moving average price of Nabil is Rs.503.84. Moving average of 200 days shows that Nabil's price is in bearish phase. As per June 27, 2024 Market Price of a Nabil is Rs. 456. In such situation buyer shouldn't make buying decision because Nabil stock can be bought in cheaper price in coming days. RSI is also movement indicator which helps to evaluate the overbought and oversold condition of a stock. Parameter of RSI is 14 days. In chart 4.2 RSI is 42.05 which shows that Nabil's stock is undervalued and oversold and there is chance of reversal. Next is Bollinger bands which are volatility indicator and used to measure the overbought and oversold conditions. In chart 4.2 Bollinger band of 20 days shows that Bands are shrinking and it's not coming to 20 days moving average. When Bollinger bands are shrinking then it is better to sell the stock and not buy for a while.

Decision: After analyzing the both fundamental and technical indicators it assesses us that for the long term, buying Nabil is beneficial because of its strong fundamental values where as technical chart shows that Nabil's stock should be in watch list.

4.1.3 Fundamental and Technical Analysis of CIT

Table 4
Fundamental indicators of CIT

SN	Indicators	Value in (Rs, %)
1	Market Capitalization (Rs)	1,10,79,16,87,500.00
2	EPS (Rs)	19.05 (Book close Adjusted) 22.14 FY-080-081/Q3
3	PE (%)	109.44 (3-5 Yrs Avg: 102.04)
4	PB (%)	12.16 (3-5 Yrs Avg: 14.28)
5	ROE (%)	11.72
6	Book Value (Rs)	171.41 (Book Close Adjusted)
7	Dividend (%)	14.73% (79-80) 26.31%(78-79) 38%(77-78)

Source: nepsealpha.com

CIT is the Investment Company and in the Table 3 it shows the financial condition of CIT current period. The table shows CIT is the third biggest company listed in the NEPSE with Rs.1.10 Kharba market capitalization which has EPS of Rs. 19.05 as per book close adjusted and Rs 22.14 as per 3rd quarter report of fiscal year 2080-81. Company who's EPS is more than 10 then it is considered good company. Looking at CIT's EPS is has really good EPS. PE ratio between 10- 30 is considered as good company. CIT's PE being 109.44 % and last 5 year average 102.04 % which shows that it is overpriced and its price can fall in future. 12.16 % and on an average of last 5 years 14.28 %, Price to book value (PB) makes it risky company because PB less than 5% is considered as a good company to invest on not more than 5%. Return on Equity (ROE) greater than 10% is considered good company, CIT's ROE is 11.72% which makes it good company if it is compared to ROE rate. ROE more than 10 is considered as a good company. With book value being more than Rs. 170 and dividend 14.73% last year and more than 26.31% in 2079-2080 and 2077-2078 makes CIT financial strong company.

Figure: 4

Technical Analysis of CIT

Source: nepsealpha.com

Figure 4 shows that moving average is above the candle stick chart. 200 day moving average price of CIT is Rs.2068.15. Moving average of 200 days shows that CIT's price is in bullish phase. As per June 27, 2024 Market Price of a CIT is Rs. 2085. In such case buyer should make buying decision because CIT stock price is more than 200 day moving average price. RSI is also movement indicator which helps to evaluate the overbought and oversold condition of a stock. Parameter of RSI is 14 days. In Chart 4.3 RSI is 37.93 which shows that CIT's stock is undervalued and oversold and there is chance of reversal. Next is Bollinger bands which are volatility indicator and used to measure the overbought and oversold conditions. In chart 4.3 Bollinger band of 20 days shows that Bands are expanding. When Bollinger bands are expanding then it is better to buy the stock.

Decision: As CIT being Investment Company and being strong both fundamentally and technically, it is right time to buy the CIT.

4.1.4 Fundamental and Technical Analysis of NRIC.

Table: 5
Fundamental Indicators of NRIC

SN	Indicators	Value in (Rs, %)
1	Market Capitalization (Rs)	86,80,12,85,527.78
2	EPS (Rs)	8.45 (Book close Adjusted) 5.27 FY-080-081/Q3
3	PE (%)	76.55 (3-5 Yrs Avg: 105.48)
4	PB (%)	4.65 (3-5 Yrs Avg: 5.85)
5	ROE (%)	5.81
6	Book Value (Rs)	139.14 (Book Close Adjusted)
7	Dividend (%)	5% (79-80) 5%(78-79) 5.26%(77-78)

Source: Nepsealpha.com

NRIC is the Re-insurance Company and in the Table 5 it shows the financial condition of NRIC's current period. NRIC is the fourth biggest company listed in the NEPSE with Rs.86.8 Arba market capitalization which has EPS of Rs. 8.45 as per book close adjusted and Rs 5.27 as per 2nd quarter report of fiscal year 2080-81. Company who's EPS is more than 10 then it is considered good company. Looking at NRIC EPS is doesn't have good EPS. PE ratio between 10- 30 is considered as good company. NRIC's PE being 76.55 % and last 5 year average 105.48 % which is not that good because its price is high and can fall in the future. 4.65 % and on an average of last 5 years 5.85 %, Price to book value (PB) makes it average company because its PB ratio touches 5%. Return on Equity (ROE) less than 10% is considered as bad company to invest, NRIC's ROE is just 5.81%. With book value being more than Rs. 135 and dividend 5% last year 3 years doesn't make it profit giving company as from investor's point of view.

Figure 5

Technical Analysis of NRIC

Source: nepsealpha.com

Figure 5 shows that moving average is above the candle stick chart. 200 day moving average price of NRIC is Rs.665.5. Moving average of 200 days shows that NRIC's price is in bearish phase. As per June 27, 2024 Market Price of a NRIC is Rs. 646. In such situation buyer shouldn't make buying decision because NRIC stock can be bought in cheaper price in coming days. RSI is also movement indicator which helps to evaluate the overbought and oversold condition of a stock. Parameter of RSI is 14 days. In chart 4.4 RSI is 41.84 which shows that NRIC's stock is undervalued and oversold and there is chance of reversal. Next is Bollinger bands which are volatility indicator and used to measure the overbought and oversold conditions. In chart 4.4 Bollinger band of 20 days shows that Bands are shrinking and it's not coming to 20 days moving average. When Bollinger bands are shrinking then it is better to sell the stock and not buy for a while.

Decision: After analyzing the both fundamental and technical indicators it is concludes for long term NRIC doesn't show good fundamental values. For short period there is change of having some profit as market price is near 200 day average price.

4.1.5 Fundamental and Technical Analysis of GBIME

Table: 6
Fundamental Indicators of GBIME

SN	Indicators	Value in (Rs, %)
1	Market Capitalization (Rs)	62,64,72,88,220.40
2	EPS (Rs)	17.17 (Book close Adjusted) 12.20 FY-080-081/Q3
3	PE (%)	10.10 (3-5 Yrs Avg: 14.91)
4	PB (%)	1.08 (3-5 Yrs Avg: 1.88)
5	ROE (%)	10.70
6	Book Value (Rs)	160.92 (Book Close Adjusted)
7	Dividend (%)	9% (79-80) 13.5%(77-78)

Source: nepsealpha.com

From the Table 6 it shows the financial values of GBIME current period. The table shows GBIME is the fifth biggest company listed in the NEPSE and second biggest company in banking sector with Rs.62.64 Arba market capitalization which has EPS of Rs. 17.17 as per book close adjusted and Rs 12.20 as per 3rd quarter report of fiscal year 2080-81. Company who's EPS is more than 10 then it is considered good company. Looking at GBIME's EPS is has really good EPS. PE ratio between 10- 30 is considered as good company. GBIME's PE being 10.10% and last 5 year average 14.91 % makes it strong company. 1.08 % and on an average of last 5 years 1.88 %, Price to book value (PB) makes it better company because PB less than 5% is considered as a good company to invest on. Return on Equity (ROE) greater than 10% is considered good company, GBIME's ROE is 10.70 % which makes it good company if it is compared to ROE rate. ROE more than 10 is considered as a good company. With book value being more than Rs. 160.92 and dividend 9% last year and more than 10% previous year makes it quite investable company compared to its market price.

Figure: 6

Technical Analysis of GBIME

Source: nepsealpha.com

Figure 6 shows that moving average is above the candle stick chart. 200 day moving average price of GBIME is Rs.193.82. Moving average of 200 days shows that GBIME's price is in bearish phase. As per June 27, 2024 Market Price of a GBIME is Rs. 173.40. In such situation buyer shouldn't make buying decision because GBIME's price is in sideways and have to wait for reversal signal. RSI is also movement indicator which helps to evaluate the overbought and oversold condition of a stock. Parameter of RSI is 14 days. In chart 4.5 RSI is 35.99 which shows that GBIME's stock is undervalued and oversold and there is chance of reversal. Next is Bollinger bands which are volatility indicator and used to measure the overbought and oversold conditions. In chart 4.5 Bollinger band of 20 days shows that Bands are shrinking and showing reversal in near future.

Decision: After analyzing the both fundamental and technical indicators it assesses us that for the long term, buying GBIME is beneficial because of its strong fundamental values where as technical also shows its price will rise in near future.

4.2 Analysis of Investment Decision

From all the stocks listed NEPSE, top 5 companies with highest market capitalization are taken as the secondary data for its interpretation. Those companies are examined using two factors fundamental and technical. Individually they are analyzed using both fundamental and technical analysis and decisions are also made but if they are compared with each other what are the investment decision. Investment decisions are made on following basis:

4.2.1 Investment Decision on the basis of EPS.

In this section of the analysis the decision has been made on the basis of Earning per share among NTC, Nabil, CIT, Nric and Gbime. EPS indicates the company's profitability by showing how much money a business makes for each share of its stock.

Table: 7

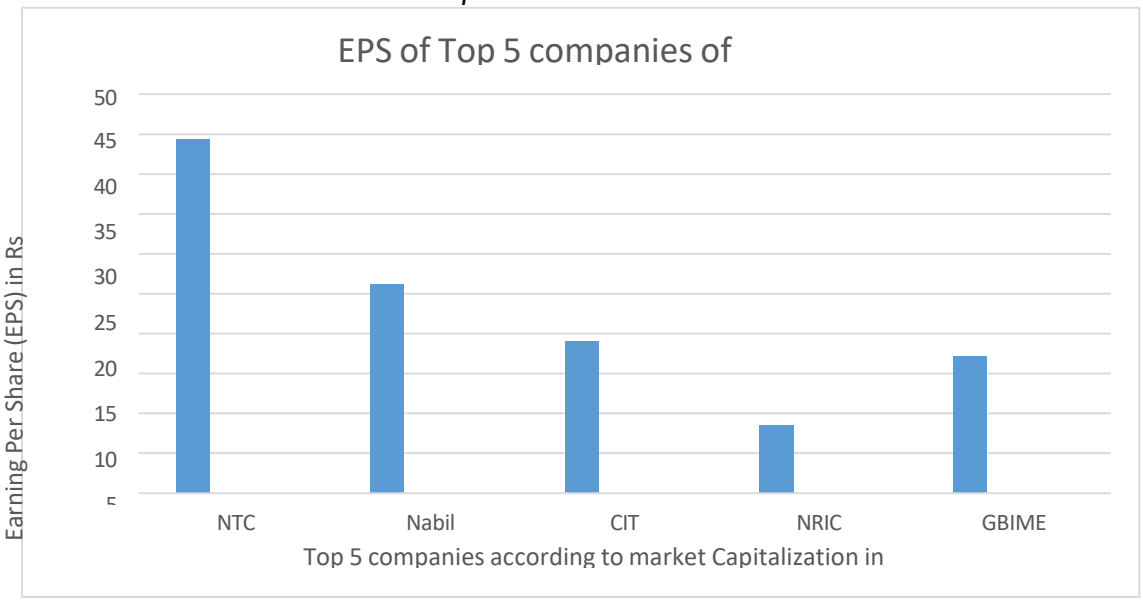
Investment on the basis of EPS.

SN	Stocks	EPS (FY 2079.80)
1	NTC	44.37
2	Nabil	26.16
3	CIT	19.05
4	NRIC	8.45
5	GBIME	17.17

Source: nepalstock.com

Figure: 7

Investment Decision on the basis of EPS



Decision: From the comparison made on the bar diagram NTC's EPS is highest compared to other 4 stocks whereas NRIC has lowest EPS but it is said that EPS more than Rs. 10 then buying its stock is profitable in future.

4.2.2 Investment Decision on the basis of ROE and P/E Ratio.

Table: 8

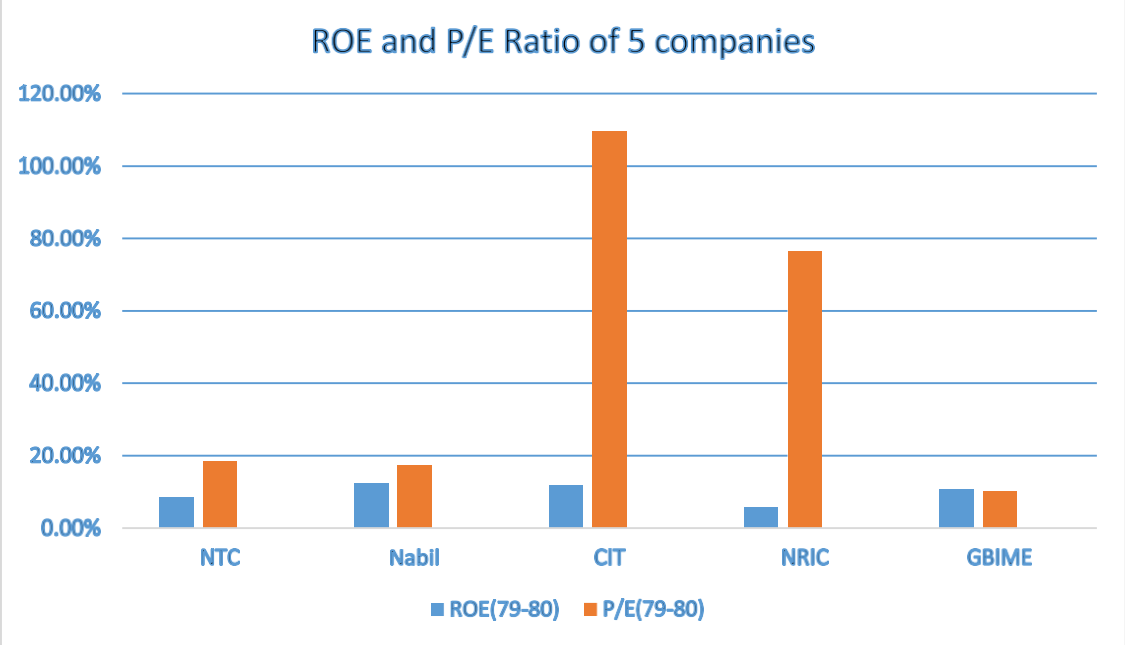
Investment on the basis of ROE and P/E Ratio

SN	Stocks	ROE(FY 2079-80)	P/E Ratio (FY 2079-80)
1	NTC	8.56 %	18.32 %
2	Nabil	12.50 %	17.43 %
3	CIT	11.72 %	109.44%
4	NRIC	5.81 %	76.55 %
5	GBIME	10.70 %	10.10 %

Source: Nepsealpha.com

Figure: 8

Investment on the basis of ROE and P/E Ratio



Source: nepsealpha.com

From Bar Diagram we can see the CIT and NRIC has high price which makes it expensive stock to buy. On the basis of ROE and P/E ratio Nabil and GBIME's stock is best to buy.

4.2.3 Investment Decision on the basis of Dividend.

Table: 9

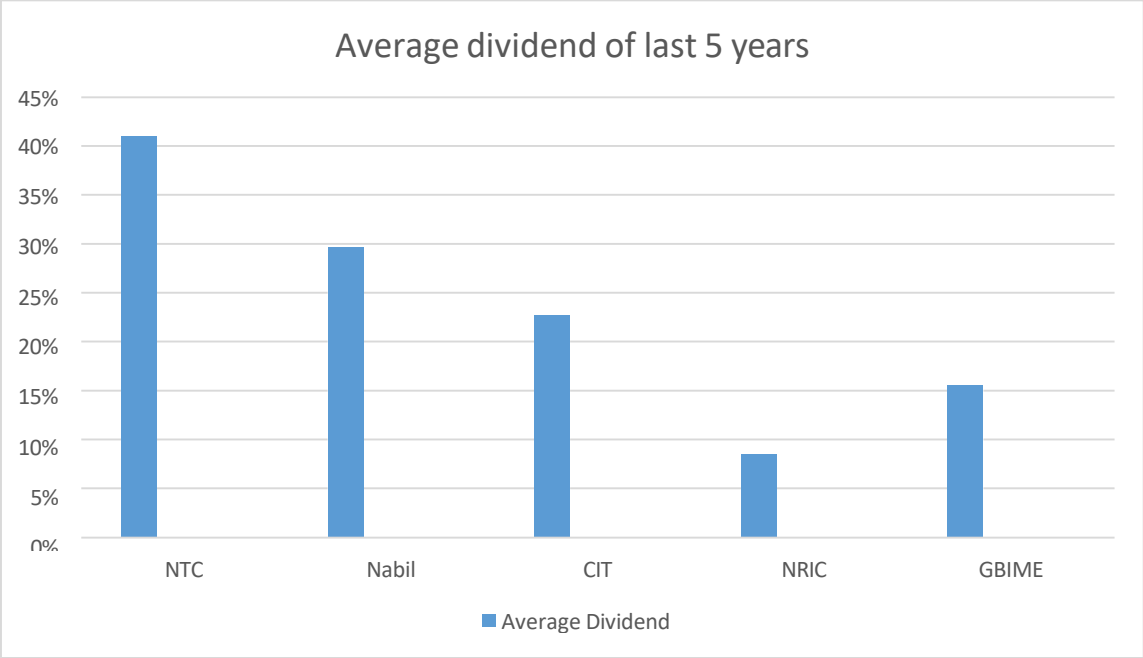
Investment on the basis of Dividend in comparison with Market Price

SN	Stocks	D1(79-80)	D2(78-79)	D3(77-78)	D4(76-77)	D5(75-76)	Average Dividend(mean)	Market Price (6/27/2024)
1	NTC	40%	40%	40%	40%	45%	41%	Rs 812.90
2	Nabil	11%	30%	38%	35.26%	34%	29.65%	Rs 456.00
3	CIT	14.74%	26.32%	31.58%	17.89%	23.16%	22.73%	Rs 2085.00
4	NRIC	5%	5%	5.26%	19%	0	8.56%	Rs 646.70
5	GBIME	9%	13.6%	13.5%	16%	25.5%	15.52%	Rs 173.40

Source: Merolagani.com

Figure 9

Comparison of Average Dividend of 5 Companies



Source: merolagani.com

In Bar Diagram 4.3 and table 4.8 NTC has been giving 41 % dividend on average in last 5 years, which is highest among 4 other companies. To get 41% dividend on next year investors have to buy NTC's stock at Rs812.90. Average 29.65% dividend is achievable who buys the Nabil's share at Rs.456. Another high price Rs2085 but less return then NTC

and Nabil is CIT. It has average dividend history of 22.73% which is less compared to other companies whose share price is less than NTC's and Nabil. In the same way being fourth height market capitalization NRIC has just 8.56% average dividend of last 4 years. NRIC has just completed 4 years as a public company and it has Market price of Rs646.70 per share as per 6.27.2024. Being 5th biggest company according to market capitalization GBIME at Rs173.40 is the buying price to gain 15.52% dividend on an average.

4.3 Discussions

Many fundamental indicators like ROE, EPS, R/E ratio, Dividend, Market prices, etc. are used to analyze the financial health of top 5 companies. Companies are taken as the highest market capitalization listed in the capital market of Nepal (NEPSE). Those Companies are compared with each other on the basis of EPS, ROE, P/E ratio, Dividend and Market Price. There are many technical tools, mastering the only 1 or 2 can give the accurate results as per the experts of capital market. On this research 3 tools- Moving Average, RSI, and Bollinger bands are used.

Analyzing the fundamental indicators of NTC, EPS is Rs44.37 as per book close adjusted and Rs41.44 as per 3rd quarter report of fiscal year 2080.81. EPS more than Rs10 is considered as a good company to invest on. NTC's EPS Rs44.37 makes it really good company. PE ratio of NTC is 18.32% and on average of 5 years it has 13.92% which makes NTC strong company because PE ratio between 10-30% is considered as a good company. PB ratio is 1.58% and on average of last 5 years 1.16% is also considered as better company to invest. ROE is just 8.56% which is less than required percentage. Book value is more than 500 and NTC has been giving dividend of 40 % for last 5 years make NTC fundamentally strong company. Whereas technical indicators- Moving averages of 200 day price of NTC is 858.78 which is more than NTC's current market price which says that NTC price is in bearish trend. Using RSI NTC's RSI 35.85 says the probability of reversal in near future and NTC's stock price is undervalued and oversold as per RSI's indicator. Using Bollinger band of 20 days shows that bands are shrinking and it's not coming to 20 days moving average. Looking at Bollinger bands right time to buy NTC price is not at the movement. But it has the chance of reversal in the near future. So NTC's stock should be wait and watch.

In case of Nabil bank. With EPS Rs26.16 and EPS Rs23.00 on 3rd quarter FY 2080-81, PE

ratio 17.43% and 28.88% on an average of last 5 years, PB 2.19% and 5 year average 3.90%, ROE 12.50%, Book value more than 200 and on an average 29.65% dividend for last 5 years makes Nabil bank fundamentally strong company. Whereas moving average of 200 day's Nabil bank price is Rs503.84 and current market price is Rs456 shows that Nabil's price is in bearish trend. RSI 42.05 and Shrinking of Bollinger bands suggest buying Nabil's stock at the current time is not suggested when technical indicators are used.

CIT being third biggest company in the NEPSE with market capitalization Rs1.10 Kharba has EPS Rs19.05 and EPS Rs22.14 as on FY2080-81, 3rd quarter, PE ratio 109.44% and 102.04% on an average of last 5 years says CIT price is overvalued and very expansive and its price can fall in near future, PB 12.16 % and 5 year average 14.28 %, ROE 11.72 %, Book value more than 170 and on an average 22.73% dividend for last 5 years makes CIT fundamentally average company because its market price is overvalued, PB is also more than 5% which is not good sign. Whereas moving average of 200 day's CIT price is Rs2068.15 and current market price is Rs2085 shows that CIT's price is in bullish trend. RSI 37.93 shows reversal in near future and Bollinger bands are expanding then it is better share to buy for the short term trading and to earn early profit.

NRIC being fourth biggest company in the NEPSE with market capitalization Rs86.8 Arba and biggest re-insurance company listed in Nepalese capital market has EPS Rs8.45 and EPS Rs5.27 as on FY2080-81, 3rd quarter, PE ratio 76.55% and 105.48% on an average of last 4 years says NRIC price is overvalued and very expansive and its price can fall in near future, PB 4.65% and 5 year average 5.85 %, ROE 5.81%, Book value more than 135 and on an average 8.56% dividend for last 4 years makes NRIC fundamentally below average company because its market price is overvalued, PB is also more than 5% which is not good sign. Whereas moving average of 200 day's NRIC price is Rs665.5 and current market price is Rs646 shows that 200 day moving average price and current market price doesn't have much of a difference. RSI 41.84 shows reversal in near future and Bollinger bands are expanding then it is better share to buy for the short term trading and to earn early profit.

In case of GBIME bank as 5th highest market capitalized bank with EPS Rs17.17 and EPS Rs12.20 on 3rd quarter FY 2080-81, PE ratio 10.10% and 14.91% on an average of last 5 years, PB 1.08% and 5 year average 1.88%, ROE 10.70%, Book value more than 160.92

and on an average 15.52% dividend for last 5 years makes GBIME bank fundamentally strong company. Whereas moving average of 200 day's GBIME bank price is Rs193.82 and current market price is Rs173.40 shows that GBIME's price is in bearish trend. RSI 35.99 which shows the sign of reversal in near future and Shrinking of Bollinger bands show reversal in the near future. It has potential to earn good capital gain in near future.

When comparison between top 5 companies on the basis of market capitalization was done on EPS then it shows that NTC has the highest EPS of Rs44.37 followed by Nabil Rs26.16, CIT Rs19.05, GBIME Rs17.17 and NRIC with Rs8.45. It is said that EPS more than Rs 10 is good to invest. From the comparison all the companies have EPS more than 10 except NRIC with only Rs8.45. Those 5 companies are compared with ROE and P/E ratio too. If ROE is more than 10% then it is considered as a good company but NTC and NRIC doesn't have much of ROE. When P/E ratio is observed of these 5 companies then CIT's and NRIC's P/E ratio being more than 109% and 75% respectively show that their price in that market is overvalued and their price could fall in near future. Last 5 year's dividend are averaged out among these top 5 companies on the basis of market capitalization and found that NTC has the highest dividend giving history with 41% followed by 29.65% Nabil, CIT 22.73%, GBIME 15.52% and 8.56% NRIC. Further to earn the dividend of 41% of NTC investors have to buy NTC's stock at Rs812.90 per share, Nabil's dividend 29.65% at Rs456, CIT at 2085, GBIME Rs173.4 and NRIC at Rs646.70.

CHAPTER V

SUMMARY AND CONCLUSION

This is the last chapter of thesis that involves summary, conclusion and recommendation of the research work. Summary is simply a brief overview of the main points of the thesis which doesn't include any new information. The conclusion is intended to help the reader understand the interpretation of the findings. The recommendations are for all the traders who wants to invest to get return of the capital invested by them in capital market.

5.1 Summary

In the stock market, the role of fundamental and technical analysis is essential for preventing traders and investors from losing money. Capital market has become popular because of its potential fields that is quite attractive but has a high risk (Hermuningsih 2017). Fundamental analysis focuses on intrinsic value and qualitative factors which offers investors a deep understanding of underlying assets and long-term growth potential. In the same way technical analysis leverages historical price data and chart patterns to identify short-term trends and trading opportunities. Fundamental analysis provides insight into the underlying value of a company, while technical analysis focuses on price movements and market psychology.

Using both analysis to helps to make well-informed trading decisions. Long-term investing, day trading, swing trading, position trading, algorithmic trading, value investing, growth investing and income investing are the types of stock trading famous in the world of capital market. Fundamentally strong company are determined by the company's business model, management team, revenue, assets, cash balance, liabilities, P/E ratio, P/B ratio, Dividend Yield, EPS, ROE, etc. By analyzing fundamental indicators, it helps to find out the growth, financial health, industry's trend, long-term investment potential and many more. On the other hand technical analysis is methodology used to make investment or trading decision based on historical price and volume data. Price charts, Technical indicators, support and resistance, trend analysis, chart patterns, volume analysis, time frame, etc. are some key aspects and techniques involved in technical analysis. Among them technical indicators like MACD, Moving Averages, RSI, Fibonacci retracement, Ichimoku Cloud, Aroon

indicator, Parabolic SAR, Standard Deviation, Bollinger bands indicators, super trends, etc are famous indicators and according to market expert, only mastering in one indicator can also make you profitable in investors' prediction is correct.Descriptive research design, causal comparative and analytical research design is used to find out the effectiveness of this research. Fundamental and technical tools and their results have their one meaning. NTC, Nabil, CIT, NRIC and GBIME are the top 5 companies on the basis of market capitalization in the Nepalese capital market. This study primarily focused on the fundamental and technical indicators of these 5 top companies listed in NEPSE.

5.2 Conclusion

The Primary determinants that impact the trading decision are technical and fundamental tools. The goal of this research is to identify the strategies on trading stocks with which traders can maximize their profit with minimum risk. Top 5 companies according to their market capitalization (6.27.2024) were taken as a sample- NTC, Nabil, CIT, NRIC and GBIME. These companies are analyzed with their 5 fundamental indicators and 3 technical indicators and their findings are concluded as NTC has been giving 41% dividend on an average of last 5 years. EPS more than Rs40, PE 18.32% and Book value more than Rs500 but it has only ROE of 8.56% but still it makes NTC fundamentally strong company. Being sideways market in the Nepalese capital market technical tools doesn't gives the accurate result. Technical tools only gives 70-75% accuracy as per research. Three technical tools Moving Average, RSI and Bollinger bands are used to analyze NTC price which says that 200 day moving average price of NTC is 858.78 and market price as per 6.27.2024 is Rs812.90, which shows the reversal sign in near future because it doesn't have that much of difference. RSI is 35.85 which says its price is undervalued and oversold, shows reversal in near future. Bollinger bands shrinking which tells not to buy at the point. If you want to have profit in short period of time then buying NTC is not good decision. Nabil bank EPS 26.16, PE ratio 17.43%, P/B Ratio 2.19%, ROE 12.50%, Book value more than 200 and dividend 29% on an average of 5 years and market price as per 6.27.2024 makes Nabil fundamentally strong company.

Technical indicators moving average price Rs503.84, RSI 42.05 and shrinking of Bollinger bands suggest not to buy for short period of time. EPS Rs19.05, PE 109.44%, ROE 11.72%. Book value 171.41, 5 year average Dividend 22.73% and market price as per 6.27.2024

Rs2085 makes CIT overvalued and expensive stock as looking to its fundamental data. Its price could go down in near future but technical indicators moving average price being Rs2068, RSI 37.93 and expanding Bollinger bands says profitable to buy for short period. NRIC has EPS 8.45(FY 79-80) PE 76.55% PB 4.65% , ROE 5.81, Book value Rs 139.14, average dividend of last 4 years 8.56% makes NRIC fundamentally below average company and its market price Rs646.70 is overpriced analyzing its fundamental indicators. NRIC 200 day moving average price is Rs665.5, RSI 41.84 and Bollinger bands shrinking says buying NRIC can give profit for short period time. Last stock GBIME's EPS 17.17(FY 79-80), PE 10.10%, PB 1.08%, ROE 10.70%, Book value Rs 160 and 5 year average dividend 15.52% with market price Rs173.40 (6.27.2024) makes it fundamentally strong company, using technical tools moving average of 200 day, price of GBIME is Rs193.82, RSI 35.99 and Bollinger band shrinking says for short time GBIME won't have any rally but have potential because of its fundamental indicators. As a student of finance, I have come to the conclusion that understanding and using the fundamental and technical tools for investing and trading makes one a more intelligent investor.

5.3 Implication

On the basis of financial and technical analysis used and data analysis as the part of the study and as per the conclusion of the study following recommendations can be suggested to the new investors who wants to come to the capital market.

A. New Investors have to know what they wants to be, long term investors or traders. Long term investment can be done on the basis of fundamental indicators where as to be a trader they have to know both fundamental and technical indicators. In the world of competition information is the power. So new investors are recommended to learn fundamental and technical indicators.

B. Long-term investors have to know the business model of company they wants to invest on. Management of that company and government policies to know the sustainability of the company. Next thing is fundamental indicators which includes the EPS, ROE, P/E ratio, Dividend Yield, Revenue, CAGR, BVPS, etc. Each indicators indicates the financial

position of the company. So it is recommended to both short term and long term investors to learn about these indicators.

C. Technical indicators are hard to learn and everybody might not understand the chart or features of indicators even if they learn it. Every economic news directly or indirectly affects the capital market of any nation. Traders who trades on daily basis have to know technical analysis to predict the price movements of the stock. Experts say that prediction made on the basis of technical tools are just 70-75% correct. If investors know the fundamental analysis and if they use technical tools too then it provides comprehensive approach to make informed decision.

D. New investors are recommended to use both fundamental and technical tools so they can minimize the risk and have flexibility on decision making.

E. Every traders have to make the trading plan and diversify their portfolio to minimize the risk.

F. The rational investor should consider the price of the stock, interest rates in the market, demand and supply pressure in the stock, dividend declaration date and rate, right share issue by company to know the buy and sell signal.

G. It is also recommended not to trade by the influence of other people and most important thing that every traders have to know is to wait. Who waits in the market wins.

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