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SUMMERINTERNSHIPPROJECT 2024

REPORT TITLE

TECHNICAL ANALYSIS IS IT A RIGHT APPROACH TO PREDICT FUTURE CRISIS OF STOCK

SUBMITTEDBY

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CERTIFICATE OF INTERNAL GUIDE

This is to certify that Mr.Chandan Kumar Bayee bearing university registration no.2306258053 of 2023-25 batch, has completed his/her summer internship at Odisha Capital Market & Enterprises Ltd.(Bhubaneswar Stock Exchange) from 03-06-2024 to 15-07-2024 under the supervision of Mr.BipinB.Dutta (corporate guide) and has submitted this project report under my guidance in partial fulfilment of the requirements for award of the degree of Master of Business Administration at Biju Patnaik Institute of Information Technology and Management Studies, Bhubaneswar. To the best of my knowledge and belief, this project report has been prepared by the student and has not been submitted to any other institute or university for the award of any degree or diploma.

Date: Signature of the Internal Guide

Place: Bhubaneswar Name:Dr.BR Mohanty

Designation:AssistantProfessor(Finance)

CERTIFICATE FROM EXTERNAL GUIDE

This is to certify that Chandan Kumar Bayee , a student of the Master of Business Administration (MBA) at Biju Patnaik Institute of Information Technology and Management Studies (BITTM) , has successfully completed the Summer Internship Project titled " Technical Analysis Is It Right Approach To Predict The Future Crisis Of Stock ." under my guidance and supervision.

The project was undertaken as a part of the student's Summer Internship during the period at Odisha Capital Market from 03/06/2024 το 15/07/2024. I confirm that the said project is the independent work of the student and has been carried out for the partial fulfilment of the requirements of the MBA program.

Chandan Kumar Bayee has shown a commendable level of diligence and sincerity in completing this project.The project report is a genuine effort to explore the theoretical concepts learned during the course and apply them in a real-world business setting. We have found the report to be satisfactory in terms of content, analysis, and presentation. We believe that this work demonstrates the student's understanding of the subject matter and their ability to apply theoretical knowledge to practical situations.

We wish the student all the best in their future endeavours

Odisha Capital Market & Enterprises Ltd. Bhubaneswar

Place : Bhubaneswar

Date : 02 / 08 / 2024

MR. BIPIN DUTTA

Odisha Capital Market , Bhubaneswar

DECLARATION

I, Mr.Chandan Kumar Bayee Bearing university registration no.2306258053 (2023-25batch), hereby declare that the project report title Technical Analysis Is It A Right Approach To Predict The Future Crisis of stock is based on my internship a at Odisha Capital Market Enterpriseses Ltd. (Bhubaneswar Stock Exchange) , during the period 3 – 06 -2024 to 15 – 07 – 2024 and is an original work done by Me under the supervision of Mr . Bipin B. Dutta (Corporate Guide) Dr. BR Mohanty (Internal Guide) This report is being submitted to Biju Patnaik Institute Of Information Technology and Management Studies , Bhubaneswar , affiliated to Biju Patnaik University Of Technology , Odisha , in partial full - Fillment of the requirements for the award of the degree of Master Of Business Administration . This Report has not been sumbitted into other institute / university for the award of any degree or diploma .

Date:

Place: Bhubaneswar Signature

Executive Summary

Understanding people's perspectives on the stock market reveals a diverse range of attitudes and beliefs. Some view the stock market as a vehicle for wealth creation and financial growth, a place to invest and potentially secure future prosperity. Conversely, others perceive it as a complex and volatile arena, fraught with risks and uncertainties, which can lead to significant losses. Many people recognize the importance of research, knowledge, and staying informed about market trends, often valuing long-term investment strategies. Investor confidence often sways with economic conditions, government policies, and global events, shaping their outlook on market behaviour. Some individuals embrace a speculative approach, aiming for short-term gains, while others prioritize a cautious and conservative approach, seeking stability and capital preservation. Overall, people's perceptions of the stock market are influenced by their risk tolerance, financial goals, past experiences, and prevailing economic narratives.

This project report focuses on the strategic selection of stocks using a comprehensive array of appropriate tools. Technical analysis is a method used in finance and trading to forecast the future direction of prices by analyzing historical market data, primarily price and volume. Unlike fundamental anlysis , which examines the intrinsic value of asset , technical analysis

Focuses on patterns , trends and statistical indicators derived from trading activity and market psychology

CONTENTS

CHAPTER -1

1. INTRODUCTION OF THE STUDY

Technical analysis is the practice of studying the stock market's past in an attempt to determine its future. Technical Analysis attempts to forecast the future financial price movements based on an examination of past price movements. Like weather forecasting, technical analysis does not result in absolute predictions about the future. Instead, technical analysis can help investors anticipate what is "likely" to happen to prices over time. Technical analysis uses a wide variety of charts that show price over time.

Technical analysis is a security analysis discipline for forecasting the future direction of prices through the study of past market data, primarily price and volume. Technical Analysis as a tool of investment for the average investor thrived in the late Nineteenth century when *Charles Dow*, then editor of the Wall Street Journal, proposed the Dow theory. He recognized that the movement is caused by the action/reaction of the people dealing in stocks rather than the news in itself.

Walter Deemer was one of the technical analysts of that time. He started at Merrill Lynch in New York as a member of Bob Farrell's department. Then when the legendary Gerry Tsai moved from Fidelity to found the Manhattan Fund in 1966, Deemer joined him. Tsai used to consult him before every major block trade, at the start of a time when large volume institutional trading became the norm and the meal ticket for brokers. Deemer, could recreate market history on his charts and cite statistics. He maintained contact with the group of other pros around then, who shared their insights with each other in a collegial confidence worthy of the priesthood.

Technical analysis is applicable to stocks, indices, commodities, futures or any tradable instrument where the price is influenced by the forces of supply and demand. Price refers to any combination of the open, high, low, or close for a given security over a specific time frame. The time frame can be based on intraday (1-minute, 5-minutes, 10-minutes,

15-minutes, 30-minutes or hourly), daily, weekly or monthly price data and last a few hours or many years. In addition, some technical analysts include volume or open interest figures with their study of price action.

The basis of technical analysis

At the turn of the century, the Dow Theory laid the foundations for what was later to become modern technical analysis. Dow Theory was not presented as one complete amalgamation, but rather pieced together from the writings of Charles Dow over several years. Of the many theorems put forth by Dow, three stand out:

Price Discounts Everything

Price Movements Are Not Totally Random

What Is More Important than Why

Price Discounts Everything

This theorem is similar to the strong and semi-strong forms of market efficiency. Technical analysts believe that the current price fully reflects all information. Because all information is already reflected in the price, it represents the fair value, and should form the basis for analysis. After all, the market price reflects the sum knowledge of all participants, including traders, investors, portfolio managers, buy-side analysts, sell-side analysts, market strategist, technical analysts, fundamental analysts and many others. It would be folly to disagree with the price set by such an impressive array of people with impeccable credentials. Technical analysis utilizes the information captured by the price to interpret what the market is saying with the purpose of forming a view on the future.

Price Movements Are Not Totally Random

Most technicians agree that prices trend. However, most technicians also acknowledge that there are periods when prices do not trend. If prices were always random, it would be extremely difficult to make money using technical analysis

A technician believes that it is possible to identify a trend, invest or trade based on the trend and make money as the trend unfolds. Because technical analysis can be applied to many different time frames, it is possible to spot both short-term and long-term trends. The IBM chart illustrates Schwinger's view on the nature of the trend. The broad trend is up, but it is also interspersed with trading ranges. In between the trading ranges are smaller uptrends within the larger uptrend. The uptrend is renewed when the stock breaks above the trading range. A downtrend begins when the stock breaks below the low of the previous trading range

What Is More Important than Why

"A technical analyst knows the price of everything, but the value of nothing".

Technicians, as technical analysts are called, are only concerned with two things:

1. What is the current price?
2. What is the history of the price movement?

The price is the end result of the battle between the forces of supply and demand for the company's stock. The objective of analysis is to forecast the direction of the future price. By focusing on price and only price, technical analysis represents a direct approach. Fundamentalists are concerned with why the price is what it is. For technicians, the why portion of the equation is too broad and many times the fundamental reasons given are highly suspect. Technicians believe it is best to concentrate on what and never mind why. Why did the price go up? It is simple, more buyers (demand) than sellers (supply). After all, the value of any asset is only what someone is willing to pay for it. Who needs to know why?

Technical Analysis is done by identifying the trend from past movements and then using it as a tool to predict future price movements of the stock. It can be done by using any of the following methods:

a) Moving Averages—This method is used to predict the trend and specify various

support and resistance levels in the short and long term period. Most commonly used moving averages are 30 DMAs and 200 DMAs. Where DMA means Days Moving Average.

b) Charts & Patterns—Some analysts' uses charts and patterns to decide on the trend and then judge the future movement. The tool used by such analyst is converting the chart in one of the many form of many shapes commonly formed by stocks. Some of such patterns are:

Reversal Patterns: - **Continuation Patterns: -**

1. Bump and Run 1.Cup with Handle
2. Double Top 2. Flag Pennant
3. Double Top 3. Symmetric Triangle
4. Double Bottom 4.Ascending Triangle
5. Head And Shoulders Top 5. Descending Triangle
6. Head And Shoulders Bottom 6. Price Channel
7. Falling Wedge 7. Rectangle
8. Rising Wedge 8. Measured {Bear} Move
9. Rounding Bottom
10. Triple Top
11. Triple Bottom

Who uses Technical Analysis?

Investors for their short-term trading decisions use Technical Analysis. This short-term may be further divided in day trading, short-term investment and for hedging purposes. The role played by Technical Analysis in each case is as follows:

1. **Day Traders:** A day trader is one who takes and squares off his position both on the same day. Mostly a day trader counts on turnover rather than margin. A day trader will interpret the market movement in the manner stated below .

. Suppose Mr. X is a day trader who deals in S&P CNX Nifty. The movement of Nifty during a particular day is stated below, if Mr. X follows the recommendations made by Technical Analysis he should sell the Nifty at 1904-1908 levels and again at 1890 level. It can be clearly seen that buying is coming at the level of 1870-1875; it is better He Squares off and can even become a net buyer at this range.

2. **Short term investors:** These people form the biggest clientele base of both the brokers and the Technical Analyst. To explain the working let's take the price movement curve of Infosys Technologies on NSE for the period 1st January 2003 to 9th April 2003. On closely analyzing the chart you will notice that a sustained buying is coming at the level of around Rs.4000. Another aspect, which should be noted, is the declining trend in terms of short term 'High' created by the stock. We can clearly deduce that each short-term rally is creating a lower high over the given term. In such a situation it is recommended by analyst to buy at the resistance level but sell it off immediately if it breaks the level by a margin of 2-3%.

3**. Hedgers:** These are generally big investors, who have lot of money at stake and hence they look to have some hedging of their risk. The strategy followed by this section of investors is that they compare the stock in consideration with the index and on the basis of the result of this comparison they take their position in the stock. This can be explained by comparing the movement of nifty on the graph with Infosys movement as we have done in the figure given below.

If we look at both the charts of nifty movement with Infosys movement we find that although both have fallen over the period but Infosys has witnessed some rallies and hence we can clearly say that a hedger will benefit by using technical Analysis and getting out at the periods when Infosys has given an upward rally.

Each and every investor invests in different kinds of com modities intending to create assets or multiply their funds. An example of this is the stock market where there are multiple companies listed and several stocks are available for the investor to buy or sell [1]. In the stock market, investors offer for stocks by providing a specific price, and sellers request a special price. At the point when these two prices coordinate, a special price. At the point when these two prices coordinate, a deal happens [2]. Frequently numerous financial specialists are offering on a similar stock. At the point when this happens, the first investor to put the offer is the first to get the share. Prediction of equity prices is the analysis of historical prices to decide the future estimation of an organisation stock exchanged on a trade. Persistent unsettlement in the securities exchange is real motivation behind why financial specialists sell out at the off-base time and frequently neglect to pick up the advantage [3]. This could potentially cause uncertainty in trading decisions. The fruitful forecast of a stock's future prices could return noteworthy benefit. Technical analysis is associated with stocks, records, products, fates, or any tradable instrument where the price is impacted by the powers of free market activity-demand and supply. The period can be foun ded on intraday (1min, 5-min, 10-min, 15-min, 30-min or hourly), every day, week after week or month to month value information and last a couple of hours or numerous years.The aim of technical analysis is to enable investors to make pref erable & safe investment decisions and identify trading opper – tunities . . The profit earned is the way to measure the efficiency of technical analysis [4]. The free market activity of stocks all relies on technical analysis. Different indicators have different significance for technical analysis [5]. Based on various indicators and types, investors can define suitable strategies. Strategies are predefined conditions that determine entry, exit, and/or trade settlement. This research paper does not focus on any developing specific trading strategies; however, it gives direction explanation of how indicators can be used for technical analysis to predict stock market direction using machine learning techniques and thereby helping in vestors whether to buy or sell stocks [6–8]. It is commonly advised most technical analysts not to use technical indicators alone for technical analysis [9]. Technical indicators should be

used in a group for analysis. Such trading strategies can be formulated using a machine learning-based technical analysis

approach. This approach helps analysts/traders to analyse a massive amount of stock market data and give prediction results with more accuracy and within less time so that traders

can identify profitable opportunities, eliminate risks and adjust or update investment strategy if required [10]. To enable quick retrieval of data and to ensure immutability of the data, the dataset is stored on a private blockchain .

2. OBJECTIVES OF THE STUDY

A. To study about the usefulness of the technical analysis.

B. To study about the tools and techniques of the technical analysis.

C. To check the feasibility by using the method on the data of various companies

D. To understand the concept of technical analysis in stock market.

E. To analyze the literature on the technical analysis.

3. RESEARCH METHODOLOGY

This research is based on secondary data. As we want to study the usefulness of the technical analysis in predicting the future market trends therefore I have taken the 15 companies as recommended by the analysts in the smart investor of the business standard newspaper for the month of January. The 15 companies are HSIL, Transportation corporation of India, SAIL, Bharti Airtel, ONGC, BHEL, ICICI bank, Jindal steel and power, Kewal kiran clothing, PUNJ Lloyd, Exide industries, Usha martin, jain irrigation Systems, Sesa Goa, India bulls real estate.I have taken their current price on the recommended day and the target price given by the analysts and then have taken their highest and lowest price from the months of February and march. Then I have taken the current price of all the industries on 28/03/10.I have taken the current rates of the companies from www.nseindian.com and www.moneycontrol.com as all the back data is ready available on the site. I have used mean., regression and t- tailed test to prove the results.

Following tools are used for Analysis of data:-

The *mean* is a particularly informative measure of the "central tendency" of the variable if it is reported along with its confidence intervals.

Mean = (Sxi)/n

Usually we are interested in statistics (such as the mean) from our sample only to the extent to which they can infer information about the population. The confidence interval

for the mean give us a range of values around the mean where we expect the "true" (population) mean is located (with a given level of certainty).

Linear Regression estimates the coefficients of the linear equation, involving one or more independent variables, that best predict the value of the dependent variable. It is used to model the value of a dependent scale variable based on its linear relationship to one or more predictors. The linear regression model assumes that there is a linear, or "straight line," relationship between the dependent variable and each predictor. This relationship is described in the following formula.

yi=b0+b1xi1+...+bpxip+ei

where ,

Yi - is the value of the ith case of the dependent scale variable

p - is the number of predictors

Pj - is the value of the jth coefficient, j=0,...,p

Xij - is the value of the ith case of the jth predictor

Ei - is the error in the observed value for the ith case

The model is linear because increasing the value of the jth predictor by 1 unit increases the value of the dependent by bj units. Note that b0 is the intercept, the model-predicted value of the dependent variable when the value of every predictor is equal to 0.

For the purpose of testing hypotheses about the values of model parameters, the linear regression model also assumes the following:

• **The error term has a normal distribution with a mean of 0.**

• **The variance of the error term is constant across cases and independent of the variables**

in the model. An error term with non-constant variance is said to be heteroscedastic.

• **The value of the error term for a given case is independent of the values of the variables in the model and of the values of the error term for other cases.**

t-test:

The One-Sample T Test procedure tests whether the mean of a single variable differs from a specified constant. The One-Sample T Test procedure:

• Tests the difference between a sample mean and a known or hypothesized value

• Allows you to specify the level of confidence for the difference• Produces a table of descriptive statistics for each test variable .

4. LITERATURE REVIEW

Volatility is one of the defining characteristics of foreign exchange markets in the era of floating exchange rates. In an entertaining book about the inner workings of the foreign exchange markets, *Roberts (1995)* observes that foreign exchange markets are in an almost continuous state of flux. Large percentage changes in both directions can be clearly seen. It is also obvious that exchange rates change every day. If an exchange rate is unchanged from one day to the next, it seems more likely to be due to coincidence than anything else. A result of this is that players in foreign exchange markets are required to make frequent predictions of future exchange rate movements.

In general, technical analysis is defined as being "the use of past price behavior to guide trading decisions in asset markets." (*Neely, 1997).* In the context of foreign exchange markets, this translates to the usage of past exchange rates as a guide for taking positions in currencies. Although technical analysis is not new, it has traditionally been regarded with skepticism in the economics profession, due in part to belief in the efficient markets hypothesis (Taylor & Allen, 1992). However it has recently become the focus of serious economic research. The intent of this essay is to bring together some of this recent research by presenting a summary of the empirical evidence regarding the usage and profitability of technical analysis in foreign exchange markets. To pre-empt, the usage of technical analysis is found to be widespread and so the potential effects and significance this are summarized and discussed.

The extent of Technical Analysis:

One obvious explanation of the apparent popularity of technical analysis could be that it is simply profitable. Hence much of the empirical work on technical analysis has been aimed at determining whether or not it is profitable. More comprehensive work by *Levich & Thomas (1993)* and *Neely et al. (1997*) uses a bootstrap approach to determine the statistical significance of profits attained by following technical trading rules. The key finding of these papers is that following a simple technical trading rule does lead to statistically significant excess returns.

It would seem that the weight of the empirical
evidence supports the conclusion that following technical trading rules in the foreign exchange markets can generate excess returns. It should be noted, however, that the type of technical analysis tested by the papers surveyed in this section probably differs from what is actually used by Practitioners. In particular, practitioners of technical analysis generally use some of their own judgment and interpretation when generating their predictions, rather than just following mechanical trading rules *(Taylor & Allen, 1990).* In light of this, a cautionary note is sounded by the findings of *Taylor & Allen (1990).* In that paper, they surveyed the exchange rate predictions of six practitioners of technical analysis or 'chartists'. They found that all but one of the analysts were unable to consistently outperform the predictions of a random walk, on a root mean square error basis, for the exchange rates and time periods surveyed. However, research by *Osler & Chang (1995)* gives some evidence that at least one actual method of technical analysis used in practice, the "head and shoulders" trading rule, may in fact be profitable.
In addition, it was previously noted that in practice, technical analysis is often used in conjunction with fundamental analysis. The studies of profitability summarized above have only considered the performance of technical trading rules in isolation. An interesting line of research would be to investigate whether combining technical analysis with trading decisions based on fundamental analysis has a positive or negative effect on the profits produced.

Significance of Technical Analysis ;

The use of market timing has long been the subject of much discussion. Several researchers question the usefulness of such techniques, arguing that such techniques usually cannot produce better returns than a buy-and-hold (B-H) strategy. Many filter rules were tested on the U.S. stock market, with most of them concluding that filter rules do not generate superior returns to the B-H strategy. If the cost of transactions were considered, the returns could even be negative (Fama and Blume 1966, Jensen and Benington 1970, Ball, 1978). These results are consistent with the efficient markets hypothesis .

This hypothesis implies that technical analysis is without merit. In an efficient market, the current price reflects all available information including the past history of prices and trading volume. As investors compete to exploit their common knowledge of a stock's price history, they necessarily drive stock prices to levels where expected rate of return are exactly commensurate with risk. At those levels one cannot expect abnormal returns (see Fama, 1970).

The guiding principle of technical analysis is to identify and go along with the trend. When there is a trend, whether started by random or fundamental factors, technical methods will tend to generate signals in the same direction. This reinforces the original trend, especially when many investors rely on the technical indicators. Thus, even if the original trend were a random occurrence, the subsequent prediction made by the technical indicator could be self-fulfilling. This self-fulfilling nature leads to the formation of speculative bubbles (see, for example, Froot, Sharfstein and Stein, 1992). Conrad and Kaul (1988) found that weekly returns were positively auto correlated, particularly for portfolios of small stocks. Frankel and Froot (1990b) suggested that the over-pricing of the U.S. dollar in the 1980s with respect to the underlying economic fundamentals could be due to the influence of technical analysis. Shiller (1984, 1987) found that irrational investor behavior resulted in excess bond and stock market volatility. He also suggested that the October 1987 world-wide stock market crash could be due largely to technical analysis. Fama and French (1988) proposed a mean reverting model to explain stock price movements. They also found that autocorrelation of returns become strongly negative for a 3-5 year horizon. DeBondt and Thaler (1985, 1987) found that stocks that were extreme losers over a 3-5 year period tend to have strong returns relative to the market during the following years. Conversely, extreme winners tend to have weaker returns in subsequent years. Sy (1990) had argued against Sharpe's (1975) conclusion, saying that there was no need for the predictive accuracy to be as high as 70 percent for the gains to be large. In addition, he demonstrated that market timing would be increasingly rewarding when the difference in returns between cash and stocks were narrowed and when market volatility increased.

Regardless of its standing in academic circles, technical analysis is very common among practitioners. Oberlechner (2001) surveys traders on their use of technical analysis, and finds that "Only a very small minority of foreign exchange traders demonstrate an exclusively fundamental or exclusively chartist overall forecasting approach." This is consistent with the previous survey research performed by Taylor and Allen (1992), Menkhoff (1997), and Lui and Mole (1998). These findings are a stark contrast to the general disdain of technical analysis held by most academic practitioners. Malkiel (1981) sums up the consensus view, "Obviously, I am biased against the chartist. This is not only a personal predilection, but a professional one as well. Technical analysis is anathema to the academic world." This quote, along with most academic research, epitomizes the academic view of technical analysis, that it is primarily a manifestation of investor irrationality. Neftci offers one possible explanation, that technical analysis might be a practical method for reducing highly nonlinear prediction problems to more tractable forms. Another possible explanation is offered by Brock, Lakonishok and LeBaron, who note the consistent ability of simple moving average rules to forecast periods of high returns and low volatility, although the profitability of such forecasts in the presence of transactions costs is questionable. The subsequent findings of Sullivan, Timmermann and White and Allen and Karjalainen support this hypothesis. It is also worth noting that while technical methods date at least to the 1920's, and anecdotal evidence points to use as far back as the 17th century, it was not until Engle that relatively low-cost methods to estimate time-varying volatility became available.

This research attempts to evaluate technical analysis on its ability to increase the utility of agents of varying degrees of risk aversion. Using the method of Fleming, Kirby and Ostdiek, the fee that a risk-neutral investor would be willing to pay for an ex ante optimal technical strategy is estimated for 33 two-year periods between 1935 and 2000. To eliminate potential data-snooping biases, the technical trading strategies are produced through genetic programming (GP). Technical analysis research prior to Neely, Weller and Dittmar and Allen and Karjalainen use trading rules that were already in common use, which introduces the risk of data snooping. According to Sullivan, Timmermann and White, data snooping occurs "when a given set of data is used more than once for

purposes of inference or model selection. When such data reuse occurs, there is always the possibility that any satisfactory results obtained may simply be due to chance rather than to any merit inherent in the method yielding the results."

In this research we are using the methodology which is used by most of the researchers. We are trying to put a light on how useful is the technical analysis in predicting the future trends from an angle which nobody else has done earlier.

CHAPTER – 2

Company Analysis

Company Profile:

Tata Steel:

Tata iron and steel co ltd established in Jamshedpur (India) in 1907 the Company took shape from the vision of founder Jamsetji N Tata and is today one of the world's most geographically-diversified steel producers with operations and commercial presence across the world. Tata Steel group is spread across five continents with an employee base of over 65,000.The first steel ingot was manufactured on 16 February 1912. During the First World War (1914-1918), the company made rapid progress. By 1939, it operated the largest steel plant in the British Empire. The company launched a major modernization and expansion program in 1951. Later, in 1958, the program was upgraded to 2 million metric tonnes per annum (MTPA) project. By 1970, the company employed around 40,000 people at Jamshedpur, and a further 20,000 in the neighbouring coal mines. In 1971 and 1979, there were unsuccessful attempts to nationalise the company. In 1990, the company began to expand, and established its subsidiary, Tata Inc., in New York. The company changed its name from TISCO to Tata Steel Ltd. in 2005. Focusing on Innovation, Technology, Sustainability & People, the Company strives to be the global steel industry benchmark for value creation and corporate citizenship and become the most admired brand in metals and minerals space. Currently, Tata Steel's consolidated India crude steel production capacity stands at 19.6 MTPA with manufacturing facilities in Jamshedpur in Jharkhand, Kalinganagar and Dhenkanal in Odisha, Sahibabad in Uttar Pradesh and Khopoli in Maharashtra. Recently, Tata Steel has commenced the phase 2 expansion of its Kalinganagar steel plant to 8 MTPA. In addition, the Company has several downstream product extensions with manufacturing facilities for Wires, Tubes, Bearings, Agriculture Equipment and Industrial By-products. It also has a Ferro-alloys and Minerals division and a heavy-duty engineering and fabrication unit, Tata Growth Shop. Tata Steel successfully delivered 16.26 MTPA of steel to the Indian market in FY 2022, recording an increase of 34% over the previous year due to the acquisition of Bhushan Steel (now renamed as TSBSL) and a ramp up at both Kalinganag

Market Segment

Tata Steel Ltd. is a diversified resources company with operations in various market segment

KEY MARKET SEGMENTS

	MARKET SUB-SEGMENTS (CUSTOMER GROUPS)	PRODUCTS & BRANDS
 **Construction** A comprehensive range of products and techniques to create value for the construction industry and support sustainable development.	• Individual House Builders (B2C)	• Tata Tiscon (Rebars) • Pravesh (Doors & Windows) • Tata Pipes (Plumbing Pipes)
	• Rural Roofing (B2C)	• Tata Shaktee (Roofing sheets) • Nest-in (Housing, Water ATMs, Ezynest Toilets)
	• Infrastructure (B2B) • Housing and Commercial (B2ECA)	• TMT Rebars (Higher dia rebars, Corrosion resistance steel) • Tiscon Readybuild (Cut & Bend Bars)
 **Automotive** Automotive applications is one of the focus areas of Tata Steel's Research & Development, aimed at giving the Group a competitive edge in the automotive market.	• Auto OEMs (B2B)	• Hot rolled, Cold rolled, Coated Steel Coils & Sheets
	• Auto ancillaries (B2B, B2ECA)	• Hot rolled, Cold rolled, Coated Steel Coils & Sheets • Precision Tubes • Tyre Bead Wires • Spring Wires • Bearings
 **General Engineering** A range of steel products, encompassing hot rolled and cold rolled sheets, wire rod and wire, sections, plate, bearings and tubes, which serve a multitude of small engineering companies.	• Panel & Appliances (B2ECA) • Fabrication & Capital Goods (B2ECA) • Furnitures (B2ECA)	• Tata Steelium (Cold Rolled) • Galvano (Coated) • Tata Astrum (Hot Rolled) • Tata Structura (Tubes)
 **Industrial** A range of products to support industrial processes and applications.	• LPG (B2B)	• Hot Rolled
	• Welding (B2B)	• Wire Rods
	• Process industries (e.g. cement, power, steel) (B2B)	• Tata Tiscrome (Ferro Chrome) • Tata Ferromag (Ferro Manganese) • Boiler Tubes
 **Agriculture** High quality agricultural implements making it the first choice in India's rural markets.	• Agri equipments (B2B)	• Bearings
	• Fencing, Farming & Irrigation (B2C)	• GI wires • Agri & Garden Tools • Conveyance Tubes

BUSINESS ANALYSIS

PROEILE OF THE PRODUCTS -

The endeavour at Tata Steel is one of vision and enterprise, a combination which has made the Company an integral part of Indian economy. In keeping with commitment to redefine the future of Indian Steel, Flat products business group at Tata Steel, today, is country's largest manufacturer of world class steel products. Integrated supply chain starting with captive raw materials, state of the art technology, continuous pursuit for innovation & knowledge and an elaborate domain of highly skilled manpower has steered this business group to enviable performance records.

With a stretched capacity of 2.5 million MT of Hot Rolled, Cold rolled & Coated Products, Flat Products business group produces approx. 65% of total saleable steel. A constant pursuit to increase customer focus, enrich product mix, energy efficient technologies & optimum utilisation of raw materials have resulted in a long term competitive advantage.

RAW MATERIALS

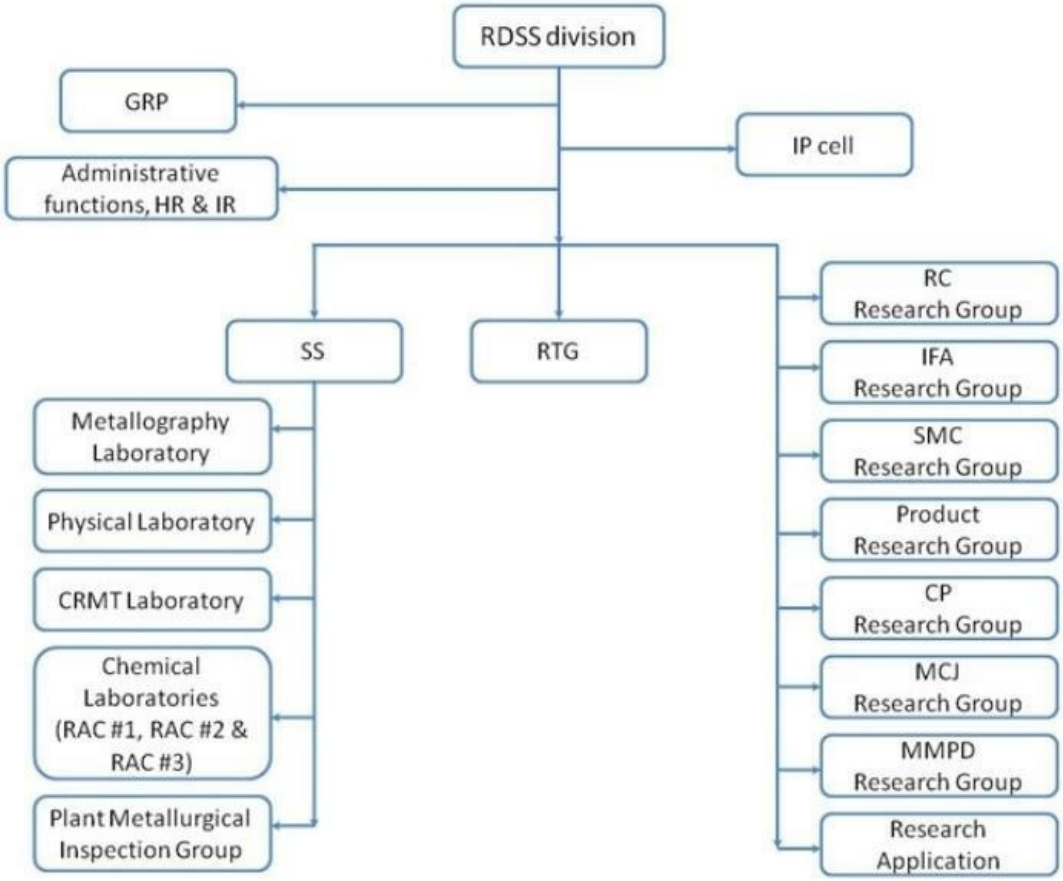
With a century of experience in sourcing raw material through scientific research and development and sustainable mining, Tata Steel's three main areas of raw material operations are iron-ore, chromite's and coal. The Company's long-term strategy has been designed to have greater control over raw material resources and achieve its security across global operations. A pioneer in prospecting, discovering and mining ore, coal and other minerals, Tata Steel has nearly a century of experience in scientific and sustainable mining: mine planning, development and research. Companyowned and operated mines and collieries have since its inception, met most of the raw material needs of the Company's Steel Works. The Raw Materials Division of Tata Steel raises over 14 million tonnes of ores from its captive collieries, iron ore mines and quarries spread over the states of Jharkhand and Orissa. Division that acts a separate profit centre. Iron-ore and coal being the two key raw materials for steel making, efficient and scientific mining operations give the Company a competitive edge in steel production. Steel production in India is projected to grow to over 120 million tonnes by the year 2022.To cater to the raw materials requirement of increasing steel demand and other mineral based industries, Tata Steel has entered into an agreement with MMTC Limited, a Central Government undertaking to establish a joint venture

company for acquiring, developing and operating mines and processing of minerals and metals. The company has also signed a Memorandum of Understanding (MOU) for exploring possibilities of entering into joint ventures for the purpose of acquisition, exploration and development of mines, extraction and processing of minerals, setting up integrated steel plant etc.

Iron Ore and Coal

Ever since the discovery of the mineral in 1903, Iron ore mining has become an integral part of steel making at Tata Steel. The iron ore units are located in Noamundi, Joda and Katamati in the states of Jharkhand and Orissa. Tata Steel Limited also has manganese mines and dolomoite quarries in Orissa, located around 150 kms from Jamshedpur, home to the Steel Company's manufacturing facility. The Steel Company's iron ore units produce various grades of high quality iron ore including rich blue dust ore. Operations at themines,including services are managed by Integrated Management Systems.

Organization Structure Of Tata Steel



Financial Performance

Tata Steel reports Consolidated EBITDA of Rs 6,631 crores for the quarter ended march, 2024 Highlights:

Tata Steel's financial performance for the fiscal year (FY) 2023–2024 includes:

- Consolidated EBITDA: Rs 23,402 crores for FY 2024
- Consolidated revenues: Rs 2,29,171 crores for FY 2024
- Capital expenditure: Rs 18,207 crores for FY 2024
- Net debt: Rs 77,550 crores
- India revenues: Rs 1,42,902 crores for FY 2024
- UK annual revenues: £2,706 million for FY 2024
- EBITDA loss: £364 million for FY 2024

Here are some other financial highlights from Tata Steel's FY 2023–2024:

- Current liabilities: Rs 506 billion, a 48% decrease from FY 2023
- Long-term debt: Rs 367 billion, a 28.6% decrease from FY 2023
- Current assets: Rs 368 billion, a 58% decrease from FY 2023
- Fixed assets: Rs 2,089 billion, a 5% increase from FY 2023
- Total assets and liabilities: Rs 2,456 billion, a 14% decrease from FY 2023

PROFIT & LOSS ACCOUNT OF TATA STEEL (in Rs. Cr.)	MAR 24	MAR 23	MAR 22	MAR 21	MAR 20
	12 mths	12 mths	12 mths	12 mths	12 mths
INCOME					
REVENUE FROM OPERATIONS [GROSS]	**139,197.60**	**127,466.52**	**127,681.40**	**82,828.16**	**58,815.57**
Less: Excise/Sevice Tax/Other Levies	0.00	0.00	0.00	0.00	0.00
REVENUE FROM OPERATIONS [NET]	**139,197.60**	**127,466.52**	**127,681.40**	**82,828.16**	**58,815.57**
TOTAL OPERATING REVENUES	**140,987.43**	**129,006.62**	**129,021.35**	**84,132.92**	**60,435.97**
Other Income	3,122.91	3,325.48	1,452.02	755.11	404.12
TOTAL REVENUE	**144,110.34**	**132,332.10**	**130,473.37**	**84,888.03**	**60,840.09**
EXPENSES					
Cost Of Materials Consumed	48,018.48	54,011.50	35,256.98	20,757.04	17,407.03
Purchase Of Stock-In Trade	9,702.30	7,467.30	4,089.03	1,688.84	1,563.10
Operating And Direct Expenses	0.00	0.00	0.00	0.00	0.00
Changes In Inventories Of FG,WIP And Stock-In Trade	369.85	-1,142.06	-1,820.87	2,176.56	-564.40
Employee Benefit Expenses	7,402.31	6,616.29	6,365.80	5,741.94	5,036.62
Finance Costs	4,178.61	3,792.14	2,792.08	4,541.02	3,031.01
Depreciation And Amortisation Expenses	5,969.79	5,434.61	5,463.69	5,469.26	3,920.12

Other Expenses	46,648.71	38,870.96	36,458.65	27,966.07	23,803.18
TOTAL EXPENSES	**121,302.51**	**110,531.40**	**86,147.27**	**67,019.49**	**52,525.53**
PROFIT/LOSS BEFORE EXCEPTIONAL, EXTRAORDINARY ITEMS AND TAX	**22,807.83**	**21,800.70**	**44,326.10**	**17,868.54**	**8,314.56**
Exceptional Items	-13,635.68	-778.78	-235.45	741.30	-1,703.58
PROFIT/LOSS BEFORE TAX	**9,172.15**	**21,021.92**	**44,090.65**	**18,609.84**	**6,610.98**
TAX EXPENSES-CONTINUED OPERATIONS					
Current Tax	4,954.21	4,928.05	11,611.94	-1,329.78	1,787.95
Less: MAT Credit Entitlement	0.00	0.00	0.00	0.00	0.00
Deferred Tax	-589.46	598.76	-532.47	2,861.65	-1,920.77
Tax For Earlier Years	0.00	0.00	0.00	0.00	0.00
TOTAL TAX EXPENSES	**4,364.75**	**5,526.81**	**11,079.47**	**1,531.87**	**-132.82**
PROFIT/LOSS AFTER TAX AND BEFORE EXTRAORDINARY ITEMS	**4,807.40**	**15,495.11**	**33,011.18**	**17,077.97**	**6,743.80**
PROFIT/LOSS FROM CONTINUING OPERATIONS	**4,807.40**	**15,495.11**	**33,011.18**	**17,077.97**	**6,743.80**
PROFIT/LOSS FOR THE PERIOD	**4,807.40**	**15,495.11**	**33,011.18**	**17,077.97**	**6,743.80**
OTHER ADDITIONAL INFORMATION					
EARNINGS PER SHARE					
Basic EPS (Rs.)	3.85	12.68	270.33	145.00	57.11

Diluted EPS (Rs.)	3.85	12.67	270.13	144.99	57.11
VALUE OF IMPORTED AND INDIGENIOUS RAW MATERIALS STORES, SPARES AND LOOSE TOOLS					
Imported Raw Materials	0.00	0.00	0.00	0.00	0.00
Indigenous Raw Materials	0.00	0.00	0.00	0.00	0.00
STORES, SPARES AND LOOSE TOOLS					
Imported Stores And Spares	0.00	0.00	0.00	0.00	0.00
Indigenous Stores And Spares	0.00	0.00	0.00	0.00	0.00
DIVIDEND AND DIVIDEND PERCENTAGE					
Equity Share Dividend	4,414.00	6,233.11	3,007.08	1,145.92	1,489.67
Tax On Dividend	0.00	0.00	0.00	0.00	297.71
Equity Dividend Rate (%)	360.00	360.00	510.00	250.00	100.00

Source : Dion Global Solutions Limited

CHAPTER – 2

COMPETITOR ANALYSIS

Porter's Five force Model

Porter's five forces is a simple but powerful tool for understanding the competitiveness ofyour business environment, and for identifying your strategy's potential profitability.

Porter's five forces Analysis of Tata Steel Limited

- Competitor
- New Entrants Threat
- Threat to Substitutes
- Bargaining Power of Customers
- Bargaining Power of Suppliers

Competitor

- Jindal steels
- Reliance steels
- Aditya Birla group
- Coal junction

- Essar
- Micom
- ISPAT
- ArcelorMittal

New Entrants Threat

The Tata steel authority members had been said in a recent interview that they see no threat

to their business. The words said by administration are-the quality of steel we produce and

the technology along with cost efficiencies and product mix at their best.

Threat to Substitutes

- Plastics and composites
- Aluminium waste
- steel

Bargaining Power of Customers

Some of the steel consumption sectors like automobiles, oil and gas, shipping consumer's

durable and power generation enjoy high bargaining power and get favourable deals

Bargaining Power of Suppliers

The bargaining power of suppliers is low for the fully integrated steel plants as they have

their own mines of key raw materials like iron ore coal fit. Tata steel is also one of the least cost

markers of steel in the world.

For limestone Tata steel has entered into a joint venture with the Al Bahja group of Oman.

NMDC is a major supplier to standalone and non-integrated still mills. In order to safeguard

itself from high bargaining power of buyers, Tata steel has forayed much earlier in it the strategy of "backward integration'

ENVIRONMENTAL POLICY

Tata Steel's environmental responsibilities are driven by our commitment to preserve the environment and are integral to the way we do business.

We are committed to deal proactively with climate Change issue by efficient use of natural resources & energy; reducing and preventing pollution; promoting waste avoidance and recycling measures; and product stewardship.

- We shall identify, assess and manage our environmental impact.
- We shall regularly monitor, review and report publicly our environmental performance.
- We shall develop & rehabilitate abandoned sites through a forestation and landscaping and shall protect and preserve the bio-diversity in the areas of our operations.
- We shall enhance awareness, skill and competence of our employees and contractors so as to enable them to demonstrate their involvement, responsibility and accountability for sound environ mental performance.
- We are committed to continual improvement in our environmental performance.
- We shall set objective-targets, develop, implement and maintain management standards and system, and go beyond compliance of the relevant industry standards legal and other requirements.

- We will truly succeed when we sustain our environmental achievement and are valuedby the communities in which we work.

COMPITITOR ANALYSIS

SWOT ANALYSIS OF TATA STEEL LIMITED

STRENGTH

- Strong Brand name of TSL and Tata Group.
- India operations capable of meeting its Own iron ore requirements.
- Raw material security building through global operations.
- Leading Sales and Distribution capability.
- Low wage labour availability.

WEAKNESS

- Low R&D Investment.
- Unscientific Mining.
- Low Productivity.

OPPURTUNITY

- Unexplored rural markets.
- Growing domestic markets.
- Growing global demands.
- Developing countries not restrained under the Kyoto Protocol.
- Carbon credits trading on the rise.
- High investment in infrastructure development.

THREATS

- World's big producers entering Indian markets.
- China set to becoming a net exporter.
- High duties and taxes by the Government
- Global laws relating to pollution control and high energy cost.
- Global economic slowdown.

COMPITITOR OF TATA STEEL

SAIL

Steel Authority India Ltd. is one of the largest state-owned steel making companybased in New Delhi, India. It is a public sector undertaking which trades publicly in the market islargely owned by Government of India and acts like an operating company. Incorporated on 24January 1973, SAIL has 93,352 employees (as on 31-Mar-2015). With an annual production of 13.9million metric tons, SAIL is the 24th largest steel producer in the world. SAIL helps keep India's ship of industry afloat. The company's main steel products include flat products (coils, plates, and sheets), structural (angles, bars, and rods), rail products (high conductivity rails, light rails, and heavy rails), and tubular products (welded pipes). SAIL controls about a third of Indian steel production, second only to Tata Steel. In 2010 it formed a joint venture with POSCO. SAIL hopes to raise its production capacity from about 30 million tons to 50 million a year by 2025. SAIL is a public sector company, owned and operated by the Government of India. It has R&D centre for Iron & Steel (RDCIS), Centre for Engineering and Technology (CET),Management Training Institute (MTI) and SAIL Safety Organization (SSO) located at Ranchicapitalof Jharkhand.

JSWSteel

JSW Steel Ltd. is an Indian steel company owned by the JSW Group based in Mumbai, Maharashtra, India. JSW Steel, after merger of ISPAT steel, has become India's largest private sector steelcompany with an installed capacity of 14.3 MTPA. As part of the US $18 billion O. P. Jindal Group,JSW Group has diversified interests in steel, energy, minerals and mining, infrastructure, cementand information technology.

ESSAR

The Essar Group is as strong as steel, as slick as oil, and on the go over sea and the airwaves. One of the largest corporations in India, the conglomerate's holdings includes the country's first independent power plant and its first private steel plant. Other operations include construction, oil and gas production, and telecommunications. Controlled by the Ruia family, which has been in business since the 1800s, the Essar Group was founded by Nand Kishore Ruia and passed to hissons Shashi and Ravi after his death in 1969. Its primary unit, Essar Steel, has manufacturing facilities in India, Indonesia, Canada, and the US, with an annual production capacity of 14 million tons.

JSPL

Jindal Steel and Power is an Indian steel and energy company based in New Delhi,India. With turnover of approx. US$3.3 billion, JSPL is a part of about US$18 billion diversified Jindal Group conglomerate. JSPL is a leading player in steel, power, mining, oil and gas and infrastructure in India. The company produces steel and power through backward integration from its own captive coal and iron-ore mines. In terms of tonnage, it is the third largest steel producer in India. The company manufactures and sells sponge iron, mild steel slabs, Ferro chrome, iron ore, mild steel, structural, hot rolled plates and coils and coal based sponge iron plant.

TATA STEEL LTD PEER COMPARISON

Company Name	LTP (₹)	P/E (%)	Mkt.Cap (₹Cr.)	NP Qtr (₹Cr.)	Div.Yield (%)	Sales Qtr (₹.Cr)	Book Value (₹)
JSW Steel Ltd	761.00	21.73	186,099.05	0.55	2,913.00	33,286.00	291.4
Tata Steel Ltd	120.95	9.54	147,819.44	2.98	-8,530.60	32,793.59	103.1
Jindal Steel & Power Ltd	636.70	11.39	64,949.01	0.31	1,108.57	12,081.79	420.1
APL Apollo Tubes Ltd	1,676.80	80.38	46,502.83	0.30	132.89	3,623.93	98.2
Jindal Stainless Ltd	485.65	16.09	39,990.10	0.51	609.40	9,720.35	152.1

CHAPTER – 4

ANALYSIS AND FINDINGS

The purpose of this report is to present the findings of a summer internship project conducted on the basics of stock selection. The study involved analyzing Tata steel Ltd., a prominent Indian multinational diversified steel company, using various parameters of stock selection. The objective was to gain insights into the process of selecting stocks for investment and understand the factors that can influence investment decisions.

Methodology:

The study followed a structured methodology that included data collection, analysis, and interpretation. The research primarily involved the following steps:

1. Data Collection:

a. Historical stock price data of Tata steel Ltd.

b. Financial statements, including income statements, balance sheets, and cash flow statements.

c. Market and industry reports relevant to Tata steel's business.

d. Expert opinions and analyses from financial experts.

2. Parameter Selection:

a. Earnings Growth: Analyzing Tata steel 's historical and projected earnings growth to assess its profitability and potential for future growth.

b. Dividend Yield: Evaluating the company's dividend yield to understand its policy on returning value to shareholders.

c. Price-to-Earnings (P/E) Ratio: Examining Vedanta's P/E ratio to determine if the stock is overvalued or undervalued.

d. Debt-to-Equity Ratio: Assessing the company's financial leverage and its ability to manage debt.

e. Market Capitalization: Understanding the size of Tata steel in the market and its position relative to peers.

f. Industry and Market Trends: Analyzing industry trends and market conditions that may affect Tata steel's stock performance.

3. Data Analysis:

a. Calculation of key financial ratios and metrics, including P/E ratio, debt-to-equity ratio, and dividend yield.

b. Comparison of Vedanta's performance with industry benchmarks.

c. Examination of historical stock price movements and trends.

Findings and Observations:

1. Earnings Growth:

- Tata steel 's earnings have shown significant volatility over the years, influenced by commodity prices and global economic conditions.
- The company's earnings growth is closely linked to the demand for metals and natural resources.

2. Dividend Yield:

- Tata steel has a moderate dividend yield, indicating a commitment to returning value to shareholders, but not a high-yield stock.

3. Price-to-Earnings (P/E) Ratio:

- The P/E ratio of Vedanta has fluctuated, reflecting market sentiment and economic factors.
- It may be considered undervalued during market downturns and overvalued during periods of strong commodity demand.

4. Debt-to-Equity Ratio:

- Vedanta has managed its debt-to-equity ratio prudently, reducing its financial risk and enhancing financial stability.

5. Market Capitalization:

- Tata steel's market capitalization is substantial, placing it among the prominent companies in the industry.

6. Industry and Market Trends:

- Tata steel's stock performance is influenced by global commodity prices and economic conditions.
- Market trends, such as demand for metals and mining resources, significantly affect the company's performance .

CHAPTER – 5

HISTORY

Technical analysis, dating back to the 17th century, has evolved from rudimentary charting methods used by Dutch traders and Japanese candlestick charting to modern techniques rooted in Dow Theory and amplified by computational models. With advancements in technology, particularly AI and machine learning, technical analysis has become increasingly sophisticated and accessible, allowing for more complex market predictions and strategies.

In the 17th century, one of the earliest forms of technical analysis emerged in Holland, where traders in the Dutch East India Company would plot changes in the prices of their stocks onto paper to form a rudimentary type of chart. This marked a significant step towards what we now understand as technical analysis.

Around the same time, Joseph de la Vega, a Spanish merchant, wrote about the behaviors of Dutch traders in his book "Confusion of Confusions," indirectly touching on several key concepts of technical analysis, such as irrational investor behavior and patterns in price movements.

In the 18th century, Japanese rice traders developed what is perhaps the most well-known early form of technical analysis: candlestick charting. Developed by Homma Munehisa, this technique uses "candles" to represent the opening, closing, high, and low prices of a security for a specific period. This method has stood the test of time and is still widely used in the financial markets today.

The late 19th and early 20th century saw the development of modern technical analysis in the United States. Charles Dow, co-founder of Dow Jones & Company and The Wall Street Journal, published a series of editorials discussing his observations on the stock market. This led to the development of the Dow Theory, one of the foundations of technical analysis as we know it today. Dow Theory proposes that markets have three trends (primary, secondary, and minor), and these trends can help predict future price movements.

In the mid-20th century, further advancements were made with the introduction of computer technology. This allowed for the development and utilization of more complex mathematical models and indicators, such as Moving Average Convergence Divergence (MACD), Relative Strength Index (RSI), and Bollinger Bands.

The 1970s and 1980s saw the popularization of chart patterns, such as head and shoulders, double tops and bottoms, and triangles, as well as the use of Fibonacci retracements. During this time, the concept of Efficient Market Hypothesis also gained traction, which contends that it is impossible to "beat the market" because stock market efficiency causes existing share prices to always incorporate and reflect all relevant information.

In the digital age, technical analysis has become even more accessible with the advent of online trading platforms and sophisticated charting software, allowing retail traders to employ strategies and techniques that were once the reserve of professionals. Furthermore, machine learning and AI technologies are opening new frontiers in the field, highlighting the ever-evolving nature of technical analysis.

In summary, the history of technical analysis is a fascinating journey from rudimentary charting methods to advanced computational models. As markets continue to evolve, so too will the tools and techniques used to analyze them.

Is Price Action Analysis The Same As Technical Analysis?

Is price action analysis the same as technical analysis? The answer is 'yes and no'. Technical Analysis is defined by Wikipedia as "a security analysis methodology for forecasting the direction of prices through the study of past market data, primarily price and volume". However, technical analysis can and usually does include a plethora of 'technical studies', as it is essentially comprised of anything that isn't fundamental or news data.

Are all of these technical studies, i.e., indicators, various chart patterns, etc. really necessary or worth it? Why do some traders become convinced that these various technical analysis studies are the 'ticket' to financial success in the market whilst others rely only on raw price action strategies? We will address these and other questions below…

Why all Technical Analysis methods are not created equal

Whilst we appreciate and respect technical analysts, as pure price action traders who focus on reading the raw price action on price charts, we do not subscribe to the idea that 'any technical study is a good study'. Instead, we stick to a handful of simple but effective price-based principles and don't look at charts and try to curve fit what we see into matching a text book theory example as many popular technical indicator-based trading systems do. There are hundreds of patterns, technical indicator settings and so on, technical trading even if narrowed down into a niche / specific topic can be very haphazard and hindsight is often the way such technical methods are advertised or represented to the beginning trader. Unfortunately, relying heavily on indicators and other technical analysis methods that largely ignore price action, often leads to dramatic long-term failure for retail traders.

Many technical analysis tools or methods are full of what I call 'noise'. That means they include numerous unnecessary variables like technical indicators such as RSI, Stochastic, MACD and countless others. The simplest explanation for why these technical indicators are simply a waste of time, is that they are all just derivatives of price action. If you are going to analyse something derived from price action, in order to make a prediction as to where price might move next, why would you not just analyse the raw price action in the first place?

By analysing 'other' technical studies, besides price action, you're simply adding unnecessary variables and cluttering up the trading process, your charts and your mind. It's simply unnecessary to trade like this. All you need to make market predictions is raw, natural price data that any market supplies you for free. Don't believe the hype or any website / 'guru' telling you that you 'need' XYZ trading system, because all you really need is price action

Why price action analysis is the best technical analysis method

I have filtered all the technical analysis 'noise' taught around the web and in books, I've filtered the crap and condensed it down to what I know works and what is logical. What I ended up with is raw price action, i.e. price movement on an indicator-free price chart.

By 'price action, I mean focusing just on the raw chart with nothing but candlestick price bars**,** on watching the key levels of support and resistance, and on determining market bias and trend in the short term and long term. This is done simply by visually observing or 'reading the chart', not relying on 3rd party instruments or technical studies.

By using a specific set of price bar patterns or 'signals' for entries, and to a lesser extent exits, we can map the market first as price action analysts, then we can massage or locate an entry after patiently waiting for a **confluence of factors** to align.

A confluence of factors can be easily described by looking for T.L.S. or 'Trend, Level, Signal", and by doing so, we can put the odds in our favour. This simply means looking for two of the three TLS factors to align and then looking for an entry at the point where they align; either a trend or a level, or a level and a signal, or a trend or a signal, etc. If you can get two or more of these factors in alignment, you have a potential price action entry on your hands.

It’s a method of trading using automated computer systems and frameworks, which streamlines processes and reduces the likelihood that a trade may be missed due to human error. Systematic trading is mainly based on technical analysis of market data.

NEURAL NETWORKS

Neural networks are state-of-the-art in computer science. They are essentially trainable algorithms that try to emulate certain aspects of the human brain. This gives them a self-training ability, the ability to formalize unclassified information and—most importantly—the ability to make forecasts based on available historical information.

Neural networks are used increasingly in a variety of business applications, including forecasting and marketing research. In some areas, such as fraud detection or risk assessment, they are the indisputable leaders. The major fields in which neural networks have found application are financial operations, enterprise planning, trading, business analytics, and product maintenance.

Neural networks can be applied gainfully by all kinds of traders, so if you're a trader and you haven't yet been introduced to neural networks, we'll take you through this method of technical analysis and show you how to apply it to your trading style.

BACK TESTING

Backtesting allows a trader to simulate a trading strategy using historical data to generate results and analyze risk and profitability before risking any actual capital.

A well-conducted backtest that yields positive results assures traders that the strategy is fundamentally sound and is likely to yield profits when implemented in reality. In contrast, a well-conducted backtest that yields suboptimal results will prompt traders to alter or reject the strategy.

Particularly complicated trading strategies, such as strategies implemented by automated trading systems, rely heavily on backtesting to prove their worth, as they are too arcane to evaluate otherwise.

As long as a trading idea can be quantified, it can be backtested. Some traders and investors may seek the expertise of a qualified programmer to develop the idea into a testable form. Typically, this involves a programmer coding the idea into the proprietary language hosted by the trading platform.

The programmer can incorporate user-defined input variables that allow the trader to "tweak" the system. An example of this would be in the simple moving average (SMA) crossover system. The trader would be able to input (or change) the lengths of the two moving averages used in the system. The trader could then backtest to determine which lengths of moving averages would have performed the best on the historical data.

TYPES OF TECHNICAL ANALYSIS

- Chart Patterns: Chart patterns involve analysing graphical representations of stock prices over time. Common chart patterns include head and shoulders, double tops, and triangles. These patterns can help traders identify potential trend reversals or continuation patterns.
- Technical Indicators: Technical indicators are mathematical calculations based on price, volume, or open interest data. Examples of technical indicators include relative strength index (RSI), moving averages, and stochastic oscillators. These indicators can provide insights into overbought or oversold conditions and potential trend changes.
- Candlestick Patterns: Candlestick patterns involve analysing the shapes and patterns formed by individual candlesticks on price charts. Patterns like doji, hammer, and engulfing patterns can provide clues about market sentiment and potential reversals.
- Support and Resistance Levels: Support levels represent price levels where stocks typically attract buyers, whereas resistance levels indicate areas where selling pressure often arises. Identifying these levels can help traders make decisions about entry and exit points.

- Volume Analysis: Volume analysis examines trading volumes accompanying price movements. An increase in trading volume can signal strong market interest and potential price trends.

TYPES OF CHART USED IN TECHNICAL ANALYSIS

Line Charts

Line charts are the most basic form of charts, They are composed of a single line from left to right that links the closing prices. Generally, only the closing price is graphed, presented by a single point.

This is a popular type of chart used in presentations and reports to give a very general view of the historical and current direction.

It is clear as well as a simple way of getting a general idea of the price movement's direction in the market, which is preferred by some traders.

While this kind of chart doesn't provide much insight into intraday price movements, many traders consider the closing price to be more important than the open, high, or low price within a given period.

Bar Chart

One of the basic tools of technical analysis is the bar chart. Bar charts are also referred to as open-high-low-close (OHLC) charts. They are comprised of a series of vertical lines that indicate the price range during that Time Frame.

Bar charts enable traders to discover patterns more easily as they take into account all the prices, open, high, low and close. The opening price is the horizontal dash on the left side of the horizontal line and the closing price is located on the right side of the line. If the opening price is lower than the closing price, the line is often colored black (or green) to represent a rising period. The opposite is true for a falling period, which is represented by a red color.

Candlestick Chart

Another kind of chart used in the technical analysis is the candlestick chart, so-called because the main component of the chart which represents prices looks like a candlestick, with a thick ‘body’ and usually, a line extending above and below it, called the upper shadow and lower shadow, respectively.

The top of the upper shadow represents the high price, while the bottom of the lower shadow shows the low price. Patterns are formed both by the real body and the shadows. Candlestick patterns are most useful over short periods of time, and

mostly have significance at the top of an uptrend or the bottom of a downtrend, when the patterns most often indicate a reversal of the trend.

The wider part of the candlestick is shown between the opening and closing price. It is usually colored in black/red when the security closes on a lower price and white/green the other way around.

The thinner parts of the candlestick are commonly referred to as the upper/lower wicks or as shadows. These show us the highest and/or lowest prices during that timeframe, compared to the closing as well as opening price.

The relationship between the bodies of candlesticks is important to candlestick patterns. Candlestick charts make it easy to spot gaps between bodies.

A slight drawback of the candlestick chart is that candlesticks take up more space than OHLC bars. In most charting platforms, the most you can display with a candlestick chart is less than what you can with a bar chart.

Renko Chart

Unlike the other Charts, **the Renko Chart** is a noise-less charting technique that concentrates merely on price movements, completely disregarding time and the usage of volumes.

This Chart consists of white/green and black/red bricks. These are placed depending on whether the price rose or not compared with the previous brick. If it did by enough value, established by the brick size, a new one is placed. White/Green bricks are used when the price of the security goes up and black/red bricks when they go down.

It is important to mention the fact that a new brick is only placed under certain volatility criteria, either resulting in a major advantage or disadvantage for traders. It can be placed in a matter of minutes or take more than a day depending on market conditions. On the one hand, this may be advantageous. Specifically for traders who desire a simple way of identifying supports and resistances, the overall trend and filter noise. On the other hand, this can make market sentiment hard to determine. Consequently rendering the usage of other analysis tools useless.

CHAPTER – 6

CONCLUSION

This paper provides an overview of technical analysis and stressing out the importance and role of technical analysis in investment decisions. Though technical analysis is based on the past prices and past events of the securities, they cannot however guarantee the future price of the securities. The application of technical analysis tells about the short term trend of the market movements. The investors can trade for short term on the basis of trends of price and volume of securities for short run and they can also earn handsome amount of profit with the application of technical analysis techniques. Technical analysis is mastering the art of profiting in all market conditions, whether the market is going upside or downside.Knowledge of the financial markets is essential for profitability, and the focus should be on Managing trading risk, with technical analysis assisting investors in maintaining leverage. The literature review highlights of work of various researchers and provides the proper understanding of technical analysis. At the end we can say that the stock market has just one hand, which is not the bull or bear side, but the right side, where technical analysis can be used to determine, when to buy and when to sell the stocks.