ANALYSIS OF SUN PHARMACEUTICAL INDUSTRIES LIMITED WITH THE HELP OF FUNDAMENTAL AND TECHNICAL ANALYSIS METHOD.

Dissertation Submitted to

The IIHMR University, Jaipur

for the partial fulfilment for the award of the degree of

Master of Business Administration (MBA)

in

Pharmaceutical Management

by

SAMIKSHA RAM

Under the Supervision and Guidance of

Dr. Saurabh Banerjee

Associate Professor and Dean-SPM

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled **ANALYSIS OF SUN PHARMACEUTICAL INDUSTRIES LIMITED WITH THE HELP OF FUNDAMENTAL AND TECHNICAL ANALYSIS METHODS** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

(Signature)
Name of Student
Date

CERTIFICATE

This is to certify that SAMIKSHA RAM in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur has successfully completed her/his internship at (name of the organization) during February 20-May 19, 2023.

Place:	Preceptor/Head of the Organization
Date:	Name of the organization- Praedico Global Research Pvt.Ltd.

CERTIFICATE

This is to certify that dissertation titled **ANALYSIS OF SUN PHARMACEUTICAL INDUSTRIES LIMITED WITH THE HELP OF FUNDAMENTAL AND TECHNICAL ANALYSIS METHODS** is a record of the research work undertaken by **SAMIKSHA RAM** in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide	School Dean
IIHMR University, Jaipur	IIHMR University, Jaipur
Date:	Date:

ABSTRACT

This paper's goal is to contrast the Fundamental and technical analysis of the chosen pharmaceutical business. Fulfil the requirements of fundamental analysis, company, economy, and industry analysis is done in a manner of top-down approach. Also. For technical analysis various parameters are used which are RSI, MACD, Bollinger’s band, volume charts to analyze the stock performance of Sun Pharmaceutical Industries Limited. Evaluate the data, ratio analysis and statistical methods are used to analyses the financial performance. Those facts are retrieved and calculated using the chosen companies' financial statements for the five-year period between 2018 and 2022. The results revealed that pharmaceutical enterprises are very liquid and solvent, but they also demonstrated inconsistent profitability and efficiency. Also, the stock price of Sun pharmaceutical is expensive and overvalued. Fill in the gaps in the current research, the study used recent literature. Also, competitive analysis of five pharmaceutical companies has been done with respect to Sun Pharmaceutical for two parameters, i.e., Net profit and EPS. This study is to be considered as a starter knowledge enhancing tool for the beginners in the stock market and people who have interest in the pharmaceutical industry.

KEYWORDS-Fundamental analysis, financial analysis, Liquidity, Profitability, Solvency, technical analysis, MACD, RSI, Bollinger’s band, Candlesticks, Stock price, overvalue, undervalue.

ACKNOWLEGMENT

To everyone who helped me finish my dissertation successfully, I would like to extend my profound appreciation. I could not have reached this important milestone in my academic career without the help and support of my mentor, dean, institution, family, and friends.

First, I want to thank my mentor, **Mr. Surya Prakash**, who has been a consistent source of encouragement and motivation throughout my academic career. My research techniques have improved thanks to their advice and kind criticism, and their priceless insights have influenced the final shape of my dissertation.

Additionally, I would want to express my gratitude to my dean**, Mr. Saurabh Banerjee**, for his continuous encouragement and support. Their support has been crucial to my academic progress, and their advice and insight have been priceless.

I also want to thank **Praedico Global Research Pvt. Ltd.,** the organization that hosted the internship and gave me the chance to conduct actual research. I learned so much from my internship's practical experience, which has deepened my grasp of the material.

I would also like to thank my family and friends for their major contributions. Their consistent encouragement and support have been crucial to my academic progress. I have the drive and desire to work hard and pursue perfection thanks to their love and support. I am appreciative of their kindness, tolerance, and support throughout my academic path. Without them, I would not have been able to reach this milestone.

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ABBREVIATIONS

1. EPS (Earnings Per Share)
2. P/E RATIO (Profit to Earning Ratio)
3. P/B RATIO (Profit to Book Value)
4. RSI (Relative Strength Index)
5. CDSCO (Central Drugs Standard Control Organization)
6. EMA (European Medicines Agency)
7. NSE (National Stock Exchange)
8. BSE (Bombay Stock Exchange)
9. COGS (Cost of Goods Sold)
10. EBIT (Earnings Before Interest and Tax)
11. ROC (Rate of Change)
12. MACD (Moving Average Convergence/Divergence)
13. EMA (Exponential Moving Average)
14. R&D (Research and Development)

1. INTRODUCTION

"Clinical trial outcomes, patent expirations, and government regulator whims are all factors that can affect pharmaceutical businesses and their stock prices. Due to this, investing in the area can be a bit of a minefield, but doing so can reap huge returns."

Jim Cramer's quotation highlights the inherent risks and benefits of investing in the pharmaceutical industry, where businesses' fortunes can be altered by a variety of outside influences. Investors frequently use a combination of fundamental and technical research to reduce these risks and spot opportunities.

Evaluate a firm's financial health and development potential, fundamental analysis entails examining its financial statements, including sales, profitability, earnings per share (EPS), and other measures. On the other side, technical analysis is all about examining the cost and volume data to find patterns and trends that may be used to forecast future price movements.

These two methods may be used to study Sun Pharmaceuticals, one of the top pharmaceutical firms in India. A diversified product range and a strong presence in important countries like the US and India are what have been driving the company's financial statements to show constant revenue growth over the past few years. In addition, Sun Pharmaceuticals is spending more on R&D because it wants to mark its presence in the novel drug delivery system globally.

Sun Pharma has its business expanded over US. Europe, Japan, and Australia. The corporation gets around 67% of its revenue from markets outside the US. Sixty-seven percent of the company's revenues come from international markets, with US market holding for 30% of those sales. Thirty-three percent of sales go to the Indian market. The stock of Sun Pharmaceuticals has demonstrated a long-term rise from a technical analysis perspective, with sporadic pullbacks along the way. Regulatory approvals, the outcomes of clinical trials, and patent expirations are just a few of the variables that have an impact on stock price changes.

Investors may fully comprehend Sun Pharmaceuticals and make wise investment decisions by combining fundamental and technical research.

1.1 PURPOSE OF THE RESEARCH –

Using a combination of fundamental and technical research techniques, the aim of this study is to offer a thorough insight of Sun Pharmaceuticals' financial health and stock market movements. This research tries to pinpoint trends and patterns in the company's performance and offer insights into prospective areas for development and improvement by examining important financial ratios and technical indicators.

1.2 PROBLEM BEING INVESTIGATED-

This study is useful for people who wish to invest in pharmaceutical companies. The objective of the research project "Analysis of Sun Pharmaceuticals with the help of Fundamental and Technical Analysis" is to evaluate Sun Pharmaceuticals, a significant Indian pharmaceutical company, in terms of its market position and financial performance. This analysis is important because it provide analysis about company’s stock situation and price variation.

The problem which will be investigated and solved in this research is how to analyses Sun Pharmaceuticals annual reports and parameters of performance to know about the benefits of investing in a company and hoe one should analyze if they are interested in buying the stocks of the company.

The Analysis of Sun Pharmaceuticals with the use of Fundamental and Technical Analysis is entitled to investigate how these two are connected to know about the company’s performance parameter. Investors can manage risks related to investing in the pharmaceutical industry and uncover prospective investment opportunities with the assistance of this study.

Thus, the RESEARCH QUESTION IS: What has been Sun Pharmaceuticals' performance in stock market and fiscal year over the past five years, and how can a financial and technical analysis techniques be used together to learn about the company’s potential for growth?

1.3 CONTEXT AND RELEVANCE OF THE STUDY-

The analysis is crucial since it will shed light on the company's assets and liabilities, areas for expansion, and risk concerns. Investors, analysts, and other stakeholders who want to comprehend Sun Pharmaceuticals' financial and stock market developments may find this material useful.

The fact that Sun Pharmaceuticals competes in an industry that is extremely competitive and continually changing makes this study relevant. Numerous laws apply to the pharmaceutical sector, and businesses must continually innovate to stay ahead of the competition. Understanding Sun Pharmaceuticals' financial and stock market patterns can aid analysts and investors in making well-informed choices about investment possibilities and help the business find areas for development and improvement.

1.4 AIM AND OBJECTIVE –

The study is based to fulfil the following goals:

1. Study financial indicators such as financial reports, balance sheet, P&L statement with its market presence along with competitive landscape.
2. Do the technical analysis for knowing the trends and factors affecting the price variation and trading patterns.
3. Assess the possible benefits and dangers of investing in Sun Pharmaceuticals.
4. Assess Sun Pharmaceuticals' financial standing over a five-year period by looking at important financial statistics such revenue growth rate, gross margin, net profit margin, ROE, debt to equity ratio, and price to earnings ratio.
5. Examine Sun Pharmaceuticals' stock market patterns using technical analysis tools including volume, Fibonacci retracements, relative strength index, and moving averages.

6. Spot patterns and trends in the business's financial and stock market performance and to offer suggestions for prospective areas of development and enhancement.
7. Comprehend, through qualitative examination of main and secondary data sources, the aspects influencing the company's performance, such as regulatory considerations, rivalry, and industry trends.

2. REVIEW OF LITERATURE

In adjacent years, a lot of interest in the fundamental and technical study of Sun Pharmaceuticals is seen. Shed light on Sun Pharmaceuticals' financial performance and market position, this review of the literature intends to investigate and summarize the main results from recent publications and papers on the subject.

1. Nazir Ahmad Gilkar. (2008). ***Profitability Analysis An Exploratory Study*****. Atlantic Publishers & Dist.-** This study used basic analysis to examine the financial performance of numerous pharmaceutical firms, including Sun Pharmaceuticals. The results showed that Sun Pharmaceuticals had steady revenue growth, strong profitability, and effective resource management, giving it a favorable position within the sector.

2. The technical analysis methods used in this study were applied to the stock of Sun Pharmaceuticals. Assess price changes, the study used a variety of technical indicators and chart patterns. According to the findings, Sun Pharmaceuticals' stock had positive trends, with entry and exit opportunities for investors identified.

3. Patel and Desai's 2019 article, "Assessing Growth Potential of Pharmaceutical Companies: A Fundamental Analysis Approach" Using Sun Pharmaceuticals as a case study, this research highlighted the value of basic analysis in determining the growth potential of pharmaceutical firms. The study cited Sun Pharmaceuticals' solid financial standing, steady sales growth, and smart acquisitions as major success drivers.

4. Sharma et al. (2018), "Exploring Market Sentiment and Investor Behavior: A Study of Sun Pharmaceuticals" This study used technical analysis to determine investor and market sentiment towards Sun Pharmaceuticals. It used technical indicators in conjunction with sentiment analysis approaches to study stock price changes. The results showed that the performance of the stock was significantly influenced by market mood.

5. Sun Pharmaceuticals should be analyzed utilising both fundamental and technical analysis methodologies, according to recent articles and studies. These studies have emphasized the steady revenue growth, solid financial performance, and positive market sentiment of Sun Pharmaceuticals.

6. In the study, (Beaver, 1966) said about how financial ratios can aid in obtaining information about a company. It can be used to identify a company's financial health even before it fails. According to the study, ratios can be used to determine a borrower's creditworthiness.

7. This study was further expanded by (Demister, 1972) by using financial measures to forecast small business failure. However, with only one financial statement available, the little firm was unable to anticipate insolvency. He concluded by noting that to evaluate the micro business, yearly reports for last 3 years in addition to financial statements are required. (**Tan, Koh, & Low, 1997)** employed a total of 2618 data from six different sectors in their study to examine the reliability of financial ratios across the board.

9. Different research (Mahajan & Sarkar, 2007) contrasted the financial successes of multinational firms with Indian companies in the motor vehicle industry. Three Indian firms and MNCs were evaluated in the study. Ten ratios in all, including the company's capacity to make profits, cash availability, and the proportion of its different funding sources, were used to examine its performance. Their coefficient of variance is determined to determine the relevance of each ratio and to assess the variability of Indian firms and MNCs.

10. Financial ratios were also used in another study (Maricia and Georgeta, 2012) to examine the probability of business failure. This research uses a in this study, sixty-three firms that are on the BSE were used and they were divided into two groups depending on their online income: performing companies and non-performing companies.

11. Through a decision tree technique, (Dlen, Kuzey, and Uyar, 2013) also employed financial measures to assess business performance. 2345 Turkish public firms make up the sample. The study spanned the years 2005 to 2011. Thirty-one financial ratios in their entirety were covered.

12. (Kanapickien and Grundien, 2015) employed monetary ratios in their research to create a model that can identify fraud in financial statements. Factors such as liquidity, activity, profitability, solvency, and structure may indicate that financial statements contain fraud.

13.Pech, Noguera, Equity analysts favoured ratios, according to (Pech, Noguera, and White, 2015), these ratios are typically not included in textbooks. Despite being heavily favoured by specialists, textbooks rarely include important debt management ratios. The explanation behind this is that professionals employ net debt more frequently than academics and mentors.

14. Ou, J. A., & Penman, S. H. (1989). Accounting Measurement, Price-Earnings Ratio, and the Information Content of Security Prices. *Journal of Accounting Research*, *27*, 111 says that employed financial statement analysis of the income statement and balance sheet ratios to forecast future earnings. The aim is to identify assets with wrong prices.

15. In accordance with French and Fama (1992), The average return for the highest book/market decile is 1% higher than the average return for the lowest book/market decile each month. According to study by Jagadeesh and Titman from 1993, during a period of three to twelve months, past winners usually continue to outperform preceding losers by about one percent.

16. Abarbanell, J. S., & Bushee, B. J. (1997). Fundamental Analysis, Future Earnings, and Stock Prices. *Journal of Accounting Research*, *35*(1), 1. used conceptual justifications to assess their ratios. They demonstrate a large and incremental relationship between previous stock returns and measures of future profitability, such as the rise in accounts receivables relative to sales growth and the gross margin rate.

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3. METHODOLOGY

A. This research has both descriptive and analytical components. The primary objective of descriptive research is to describe the current situation as it stands. The researcher has no authority over the variables, which is the main aspect of descriptive study. The study of fundamental analysis is best for this methodology.

B. **SOURCE OF DATA-**

Secondary Source:

Data was collected from secondary source. The data was collected from the annual reports of companies, some websites and company's annual reports. Websites of NSE and BSE are major source of information and collection of reports Sun Pharmaceuticals.

C. SAMPLING PLAN-

Sampling plan has been chosen for two different working. **Firstly, for the analysis of fundamental and technical analysis, which is pure secondary research, data of five consecutive fiscal years are taken for comparing the different parameters of the same company. Secondly, for the competitive analysis, the data of five different pharmaceutical companies has been considered for the similar parameters.**

The order of analysis is-

1) FUNDAMAENTAL ANALYSIS

- **Economic Analysis**
- **Industry Analysis**
- **Company Analysis**
- **Financial Analysis**

2) TECHNICAL ANALYSIS

3.1 FUNDAMENTAL ANALYSIS-

Most of the work in financial analysis, known as **quantitative work**, **consists of analyzing financial statements like the balance sheet, income statement, and cash flow. This type of analysis is known as fundamental analysis**. The second type of work is **qualitative**, **and it looks at things like business models, competitive analysis, management choices, and brand value in line with industry and economic analysis.**

We must first examine the Indian pharmaceutical's landscape to get the fundamental analysis of Sun Pharmaceuticals-

- By 2030, it is anticipated that the Indian pharmaceutical business would be worth US$130 billion.
- In terms of both volume and value, India is the third-largest producer of pharmaceuticals across the globe. With a network of 3,000 pharmaceutical businesses and 10,500 production facilities, India has a promising and developed domestic pharmaceutical sector.
- As of 2021, India produced 60% of all vaccinations, making it the world's largest vaccine manufacturer.
- In September 2022, Indian exports of drugs and pharmaceuticals was around. $2,196.32 million USD.
- In FY22 and FY21, Indian medicine and pharmaceutical exports was around US$24.60 billion and US$24.44 billion, respectively.
- In FY22, the Indian pharmaceutical sector produced a 15.81-billion-dollar trade surplus.

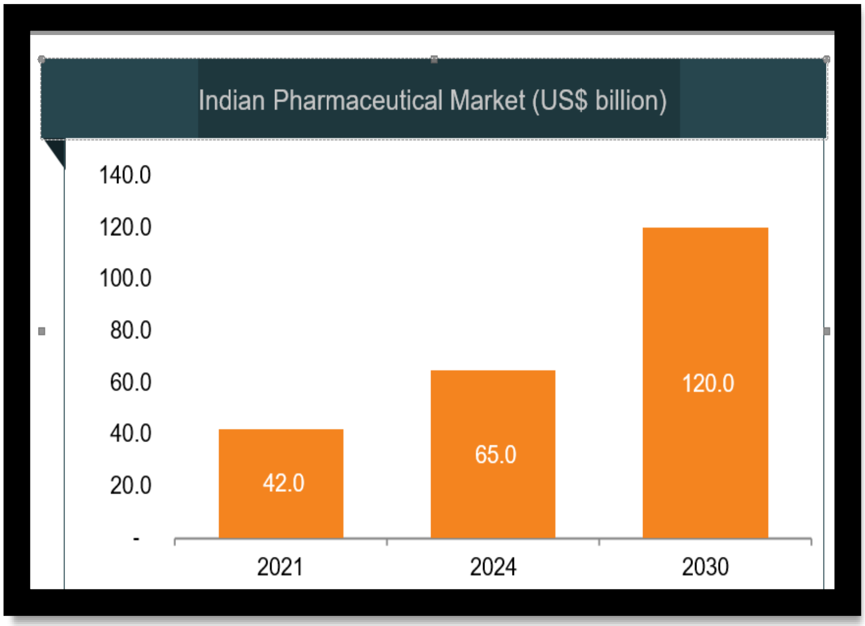

FIGURE 1- INDIAN PHARMA MARKET.

Here, for the Qualitative part of the Fundamental analysis, we would go forward with the top-down approach, i.e., first the economy analysis, followed by industry analysis and then company analysis.

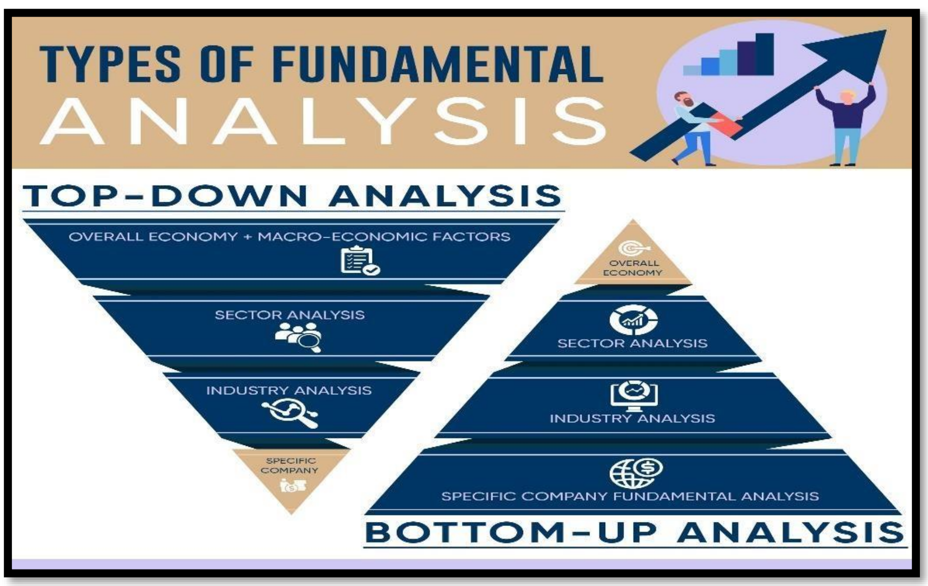

FIGURE 2 - TYPES OF FUNDAMENTAL ANALYSIS

- # 3.1.1 ECONOMIC ANALYSIS-

  - One of the biggest pharmaceutical firms in India, **Sun Pharmaceuticals is renowned across the world for its wide selection of both generic and branded medications**. The contribution of Sun Pharmaceutical is major in the pharmaceutical industry because of its global presence.
  - **In terms of revenue and market share, Sun Pharmaceuticals has grown significantly over time**. They offer versatility in terms of products of different therapeutic areas such as neurology, cardiology, and gastrointestinal.
  - Sun Pharmaceuticals has regularly outperformed its competitors in terms of sales. **The firm declared total sales of thirty crore (about USD 4 billion) in its most recent financial report. This data shows the potential of the company to grow its revenue.**

There are several reasons behind Sun Pharmaceuticals' success.

  - Firstly, the company has a strong hold in the R & D sector that focuses on new and cheaper medicines.

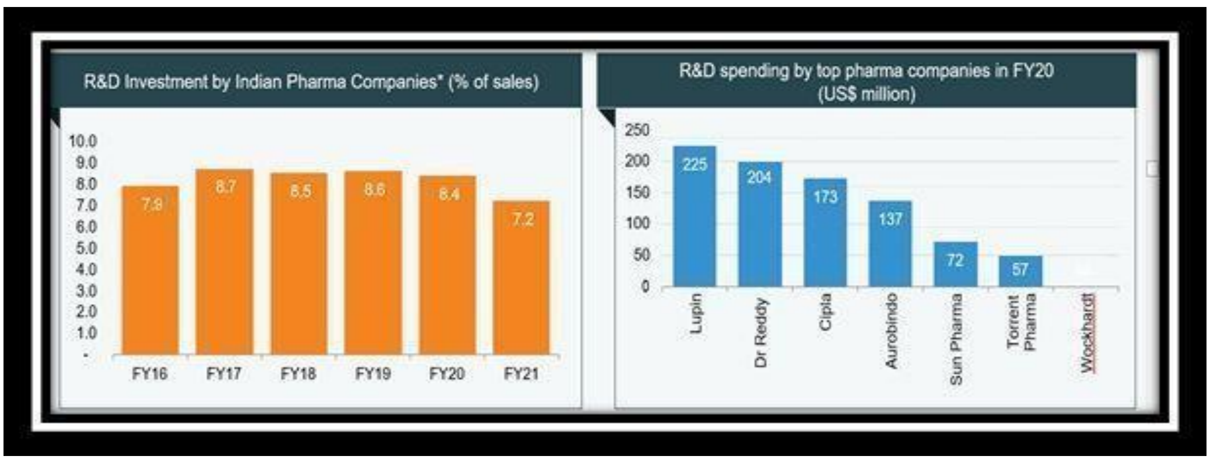

FIGURE 3- R & D INVESTMENT OF PHARMA COMPANIES

  - **Second, to expand its product portfolio and market share, Sun Pharmaceuticals has looked for strategic alliances and acquisitions.**
  - **Sun Pharmaceuticals has also played a key role in the creation of generic medications, which are less expensive alternatives to name-brand medicines.** The organization has made healthcare more accessible to a larger population, both.

in India and overseas, by providing affordable alternatives. This accessibility feature has greatly aided the company's performance and improved its standing in the marketplace.

- **The economic effect of Sun Pharmaceuticals goes beyond its profitability. Business has significantly aided in the growth of the economy and the creation of jobs.** Sun Pharmaceuticals employs a sizable workforce and offers thousands of people job chances because to its big production facilities and R&D facilities.
- Additionally, the activities of Sun Pharmaceuticals contribute to the expansion of India's pharmaceutical industry. The business's success has encouraged other Indian pharmaceutical firms to make R&D investments and increase their worldwide reach. India has become a significant player in the international pharmaceutical business because to this healthy rivalry, which has also sparked innovation.

• 3.1.2 INDUSTRY ANALYSIS-

Sun Pharmaceuticals works in the pharmaceutical sector, which is important to healthcare since it **creates, produces, and distributes pharmaceuticals and therapies**. The important elements that influence Sun Pharmaceuticals' position within the pharmaceutical business, **such as market dynamics, competition, the regulatory environment, and industry trends, will be examined in this industry study**.

- **Market Dynamics**: The worldwide pharmaceutical business has had consistent expansion, which is attributed to several causes, including an ageing population, an increase in the frequency of chronic illnesses, and more access to healthcare in developing nations. **Sun Pharmaceuticals is positioned to profit from the rising demand for inexpensive medicines and cutting-edge therapies since it works in both the generic and branded markets**.
- **Competition:** There are many local and foreign competitors seeking market share in the pharmaceutical sector. Companies such as Cipla, Dr. Reddy’s, and foreign companies such as Pfizer, Roche etc. are competing with Sun Pharmaceuticals.

- **Regulatory Environment**: To assure the safety, effectiveness, and quality of medicines, the pharmaceutical business is subject to strict regulations. **Sun Pharmaceuticals operates globally and is subject to several regulatory bodies, including the (CDSCO) OF INDIA, (EMA), AND THE US (FDA).**
- **Intellectual property rights (IPR):** IPR protection is essential in the pharmaceutical sector because it encourages innovation and enables businesses to recoup their R&D expenditures. **Sun Pharmaceuticals must handle intellectual property rights to introduce generic medications or create unique therapies since it operates in a complicated world of patents, trademarks, and copyrights.** For Sun Pharmaceuticals to be successful in the long run, managing IPR risks and looking into licensing and cooperation opportunities are crucial measures.

- **Industry Trends:** Sun Pharmaceuticals must adjust to be competitive since several industry trends are reshaping the pharmaceutical business. **One significant trend is the growing emphasis on targeted medicines and personalized medicine,** which is being driven by developments in genomics and precision medicine. Sun Pharmaceuticals is most likely to make investments in these fields of research and development.
- **Digitalization and data analytics** have improved supply chain management, medication research, and patient care. **Sun Pharmaceuticals can increase operational effectiveness, improve patient outcomes, and spur innovation by using technology and data-driven insights.**
- **Sustainability and environmental stewardship**: **Sun Pharmaceuticals are required, like other pharmaceutical firms, to make investments in green projects, lower its carbon footprint, and encourage eco-friendly practices across its operations.**

- ## 3.1.3 COMPANY ANALYSIS-

  - **Sun Pharmaceuticals was established in 1983 by Mr. Dilip Shanghvi and began as a producer of mental medications**. It currently offers a wider range of products and works in **several therapeutic fields, including gastrointestinal, dermatology, neurology, and cardiology**. The business serves numerous market sectors with a wide variety of goods, including both branded and generic pharmaceuticals.
  - Sun Pharmaceuticals has demonstrated outstanding financial success, often posting significant sales and profitability numbers**. The firm reported total sales of INR Thirty crores (about USD 4 billion) in its most recent financial report.**

  - **Sun Pharmaceuticals has several competitive advantages that help it maintain its market position. These consist of:**

    a) Sun Pharma has a broad product portfolio that includes a variety of over the counter (OTC), generic, and specialty treatments. The corporation can better meet the demands of many markets and increase revenue potential thanks to this diversity.

    b) Global Presence: Sun Pharmaceuticals has a substantial global footprint thanks to its presence in more than 100 nations. This will help and will help business to expand globally.

    c) Research and Development (R&D) Capabilities: The dedication to R&D enables the business to launch new goods, improve current treatment options, and keep a competitive advantage**.**

    d) Production Facilities: Sun Pharmaceuticals maintains a large network of production facilities while upholding strict quality standards. Its reliable infrastructure promotes effective manufacturing, cost reduction, and prompt product delivery.

  - **Sun Pharmaceuticals has implemented strategic measures to fuel growth and strengthen its position in the industry. These consist of:**

- The firm has completed several strategic acquisitions and partnerships to broaden its product offering, bolster its market position, and get access to cutting-edge technology. **Taro Pharmaceuticals and Ranbaxy Laboratories are two notable purchases.**
- **Geographic Expansion:** Through organic expansion and strategic alliances, Sun Pharma has concentrated on boosting its presence in important international markets.
- Specialty medicines are costly, high-tech medications used to treat certain illnesses. Sun Pharmaceuticals has been making significant investments in specialized medications. Because of its strategic focus, the company may be able to fill unfulfilled demands.

COMPANY ANALYSIS FROM ANOTHER PERSPECTIVE CAN BE DONE BY SWOT AND PESTLE ANALYSIS.

3.1.4 SWOT WITH REFERENCE TO THE QUALITATIVE ANALYSIS-

STRENGTHS:

• **Diverse product range:** Sun Pharma maintains its position as a market leader in the pharmaceutical industry thanks to a robust product line that comprises both branded and generic pharmaceuticals.

• **Strong Distribution Network**: Thanks to the company's strong distribution network, it can interact with customers in both local and international markets.

• **Strong Research and Development:** Sun Pharma has made major expenditures in R&D, allowing it to develop innovative drugs and expand its product range**.**

• **Cost-Effective Operations:** Sun Pharma has developed cost-effective operations that have helped it to maintain profitability despite severe competition in the pharmaceutical sector.

WEAKNESSES:

• **Dependence On Important Markets:** Sun Pharma is heavily dependent on the Indian market, which generates most of its revenue. Because of this dependence, the company is more vulnerable to changes in the Indian economy and regulatory environment.

• **Concentrated Customer Base:** Sun Pharma has a small number of very large customers, which enhances the risk that these clients pose to the business.

• **Quality Control Problems:** Sun Pharma has already had several quality control problems, which have harmed its image and led to regulatory punishments.

OPPORTUNITIES:

• **Rising Generic Medicine Demand Globally:** Sun Pharma may profit from rising generic drug demand globally, particularly in emerging countries**.**

• **Acquisition-Based Growth:** Sun Pharma may carry on its historical practice of acquisition-based growth.

• **Expansion Into New Markets:** Sun Pharma may do so to diversify its sources of income by entering new markets like China and Africa.

THREATS:

• **Fierce Rivalry:** Sun Pharma confronts fierce competition from both domestic and foreign competitors in the highly competitive pharmaceutical business.

• **Regulatory Changes**

• **Intellectual Property Infringement**

3.1.5 PESTLE ANALYSIS-

A. Political factors: Government agencies in many nations have strict regulations for the pharmaceutical business. Sun Pharmaceuticals has operations in several nations and could run into political issues regarding laws, pricing structures, and intellectual property rights. Government policy and regulatory changes may have an influence on the company's operations and financial results.

B. Economic Factors: Sun Pharmaceuticals' financial performance may be significantly impacted by changes in the world economy and currency rates. The demand for pharmaceutical goods and pricing policies can be impacted by economic variables including inflation, interest rates, and changes in GDP.

C. Social Variables: The healthcare sector is significantly impacted by social variables like healthcare awareness, the ageing population, and demographic trends in the general population. Sun Pharmaceuticals has operations in a few nations; thus, it is crucial for the business to comprehend the socioeconomic elements that influence consumer demand for its goods.

D. Factors Related to Technology: Sun Pharmaceuticals makes significant investments in R&D to create cutting-edge medicinal medicines. Businesses embrace digital transformation to enhance operational effectiveness and better connect with consumers.

E. Legal Considerations: Because the pharmaceutical sector is so heavily regulated, Sun Pharmaceuticals may get into trouble in court for patent disputes, litigation, and compliance problems.

F. Environmental Considerations: Sun Pharmaceuticals has to priorities sustainability and waste management to lower its carbon footprint because the pharmaceutical sector has a substantial influence on the environment.

Now, we are done with the qualitative analysis part of fundamental analysis, now let's dive into the quantitative part, which is the financial analysis.

- **3.2 FINANCIAL ANALYSIS-** Four main components or calculation parameters make up financial analysis. Financial ratios are used as variables to compare the financial positions of the firms, analyse the data, and develop conclusions. These factors are eliminated from the financial statements of these businesses during the time. The use of statistical techniques like mean, standard deviation, and coefficient of variation is then used to conduct a thorough examination. **In this research, the liquidity factor, solvency factor, profitability factor, and growth factor are the forms of ratio analysis we start with.**

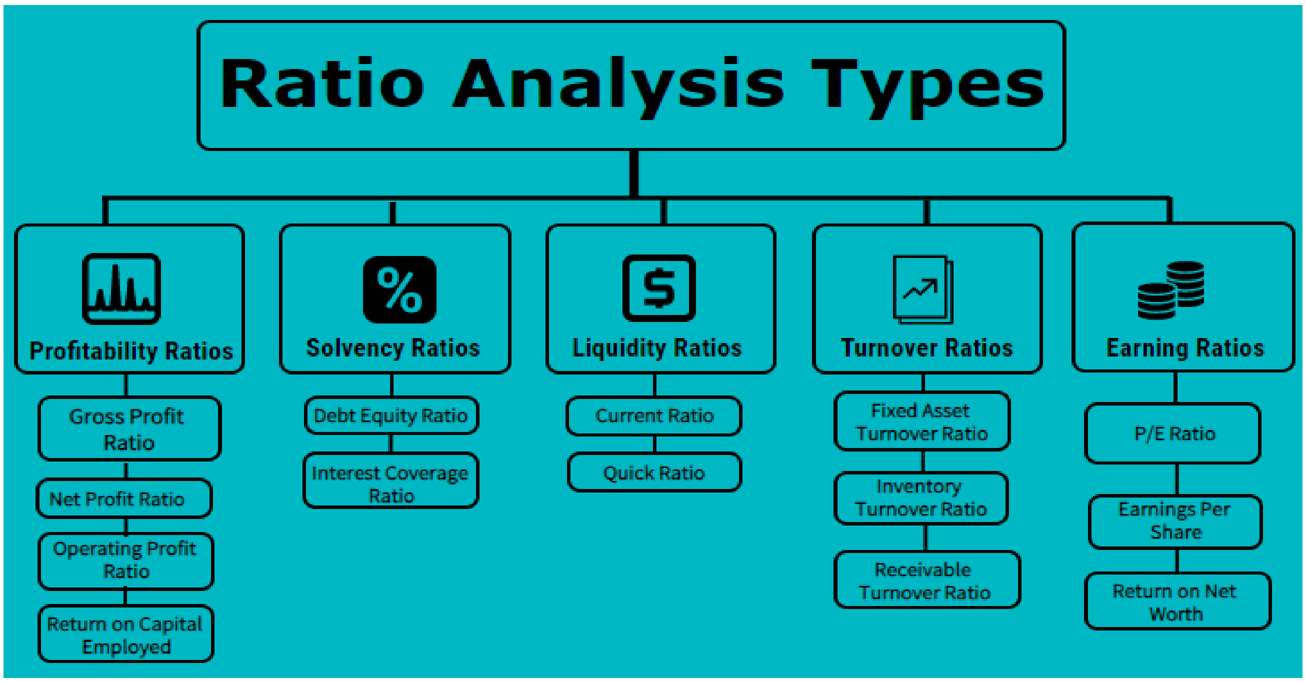

FIGURE 4 - TYPES OF RATIO ANALYSIS

DESCRIPTION OF VARIABLES TOOK FOR METHODOLOGY-

Variables	**Factor**	**Formula**	**Meaning**
Current Ratio	Liquidity	Current Assets divided by Current Liability	Tells about the company’s capacity to pay off the short-term debt by using the current assets
Quick Ratio	Liquidity	Liquid Assets divided by Current Liability	Provides information about the company's ability to use cash and cash equivalents.
Gross Profit Ratio	Profitability	Gross Profit divided by Net Sales	Displays a company's profit after deducting its cost of goods sold (COGS).
Net Profit Ratio	Profitability	Net Profit divided by Net sales	Calculates the profitability in relation to sales.
Return on assets	Profitability	Net income divided by total assists.	Demonstrates how successfully the business turns money into profit.
Return on equity	Profitability	Net income divided by shareholder’s equity.	How well a corporation generates profit using its stock.
EPS	Earning	By dividing the net revenue by the total number of outstanding shares.	Gives a gauge of a company's per-share profitability.
P /E Ratio	Earning	By dividing the market price per share by the earnings per share.	Offers information on how much a company's stock is worth. It aids. investors in determining if a stock is

			expensive or cheap compared to its profit's potential.

TABLE 1 VARIABLES OF FINANCIAL ANALYSIS

The factors taken for calculating current ratio and quick ratio are taken from the consolidated balance sheet of Sun Pharmaceuticals.

LIQUIDITY RATIO					
RATIOS	Mar 22	Mar-21	Mar-20	Mar-19	Mar-18
Current Ratio	2.04	1.89	2.02	1.79	1.59
Quick Ratio	1.512636	1.328227	1.513977	1.337008	1.246215

TABLE 2 - LIQUIDITY RATIO FROM 2018-2022

Sun Pharmaceutical Industries					
Consolidated Cash Flow	------------------ in Rs. Cr. ------------------				
	Mar '22	Mar '21	Mar '20	Mar '19	Mar '18
	12 mths	12 mths	12 mths	12 mths	12 mths
Net Profit Before Tax	₹ 4,481.32	₹ 2,799.37	₹ 5,009.59	₹ 3,810.20	₹ 3,478.98
Net Cash From Operating Activities	₹ 8,984.54	₹ 6,170.37	₹ 6,554.77	₹ 2,196.45	₹ 3,907.15
Net Cash (used in)/from Investing Activities	₹ -5,724.74	₹ 536.22	₹ -2,588.84	₹ -681.25	₹ -3,370.81
Net Cash (used in)/from Financing Activities	₹ -5,193.46	₹ -5,980.48	₹ -5,715.14	₹ -2,730.52	₹ -1,539.26
Net (decrease)/increase In Cash and Cash Equivalents	₹ -1,806.23	₹ 596.42	₹ -1,385.69	₹ -889.67	₹ -855.64
Opening Cash & Cash Equivalents	₹ 6,314.48	₹ 5,676.61	₹ 7,062.30	₹ 7,951.97	₹ 8,762.09
Closing Cash & Cash Equivalents	₹ 4,508.25	₹ 6,273.03	₹ 5,676.61	₹ 7,062.30	₹ 7,906.45

TABLE 3- CASH FLOW STATMENTS FROM 2018-2022

Sun Pharmaceutical Industries Limited										
Consolidated Profit & Loss account	------------------ in Rs. Cr. ------------------									
		Mar-22		Mar-21		Mar-20		Mar-19		Mar-18
		12 months		12 months		12 months		12 months		12 months
revenue from operations [gross]										
less: excise/sevice tax/other levies	₹	38,426.42	₹	33,139.18	₹	32,325.17	₹	28,686.28	₹	26,065.94
revenue from operations [net]	₹	-	₹	-	₹	-	₹	-	₹	73.92
other operating revenues	₹	38,426.42	₹	33,139.18	₹	32,325.17	₹	28,686.28	₹	25,992.02
total operating revenues	₹	228.07	₹	358.96	₹	512.33	₹	379.63	₹	423.52
other income	₹	38,654.49	₹	33,498.14	₹	32,837.50	₹	29,065.91	₹	26,415.54
total revenue	**₹**	**921.51**	**₹**	**835.52**	**₹**	**635.98**	**₹**	**1,025.49**	**₹**	**838.76**
expenses	₹	39,576.00	₹	34,333.66	₹	33,473.48	₹	30,091.40	₹	27,254.30
cost of materials consumed										
purchase of stock-in trade	₹	7,049.12	₹	6,153.13	₹	5,515.23	₹	5,782.70	₹	4,462.60
operating and direct expenses	₹	3,410.03	₹	3,175.17	₹	3,414.37	₹	2,519.38	₹	2,731.38
changes in inventories of fg, wip and stock-in trade	₹	557.81	₹	-	₹	-	₹	-	₹	-
employee benefit expenses	₹	-107.61	₹	-638.22	₹	300.85	₹	-433.11	₹	230.70
finance costs	**₹**	**7,300.83**	**₹**	**6,862.23**	**₹**	**6,362.35**	**₹**	**5,967.09**	**₹**	**5,367.05**
depreciation and amortisation expenses	₹	127.35	₹	141.43	₹	302.73	₹	555.25	₹	517.57
other expenses	₹	2,143.74	₹	2,079.95	₹	2,052.78	₹	1,753.25	₹	1,499.84
total expenses	₹	10,046.59	₹	9,454.46	₹	10,254.94	₹	8,922.26	₹	8,015.68
profit/loss before exceptional, extraordinary item	₹	30,527.86	₹	27,228.15	₹	28,203.25	₹	25,066.82	₹	22,824.82
exceptional items	₹	9,048.14	₹	7,105.51	₹	5,270.23	₹	5,024.58	₹	4,429.48
profit/loss before tax	₹	-4,566.82	₹	-4,306.14	₹	-260.64	₹	-1,214.38	₹	-950.50
tax expenses-continued operations	₹	4,481.32	₹	2,799.37	₹	5,009.59	₹	3,810.20	₹	3,478.98
current tax										
deferred tax	₹	354.39	₹	957.30	₹	1,320.14	₹	803.96	₹	662.80
tax for earlier years	₹	721.11	₹	-442.61	₹	-497.34	₹	-203.08	₹	-72.06
total tax expenses	₹	-	₹	-	₹	-	₹	-	₹	254.45
profit/loss after tax and before extraordinary item	₹	1,075.50	₹	514.69	₹	822.80	₹	600.88	₹	845.19
profit/loss from continuing operations	**₹**	**3,405.82**	**₹**	**2,284.68**	**₹**	**4,186.79**	**₹**	**3,209.32**	**₹**	**2,633.79**
profit/loss for the period	₹	3,405.82	₹	2,284.68	₹	4,186.79	₹	3,209.32	₹	2,633.79
minority interest	₹	3,405.82	₹	2,284.68	₹	4,186.79	₹	3,209.32	₹	2,633.79
share of profit/loss of associates	₹	-116.55	₹	631.47	₹	-407.03	₹	-542.44	₹	-446.80
consolidated profit/loss after mi and associates	₹	-16.54	₹	-12.33	₹	-14.83	₹	-1.46	₹	-25.44
Consolidated Profit/Loss After MI And Associates	**₹**	**3,272.73**	**₹**	**2,903.82**	**₹**	**3,764.93**	**₹**	**2,665.42**	**₹**	**2,161.55**

TABLE 4- PROFIT AND LOSS ACCOUNT SHEET FROM 2018-2022

PROFITABILITY RATIO					
	Mar-22	Mar-21	Mar-20	Mar-19	Mar-18
Net profit ratio	0.0861	0.0665	0.125078	0.106652	0.096638
Return on assests	1.0299	1.036	1.035524	1.048982	1.045591
Operating profit margin (%)	26.89	25.34	21.28	21.7	21.2
Gross profit margin (%)	21.35	19.13	15.03	15.66	15.55

TABLE 5- PROFITABILITY RATIO FROM 2018-2022

P/E Ratio					
	Mar-22	Mar-21	Mar-20	Mar-19	Mar-18
Share Price (in ₹)	902.35	587.2	338.25	478.85	495.4
EPS (in ₹)	14	12	16	11	9
P/E Ratio	64.45357	48.93333	21.14063	43.53182	55.04444

TABLE 6 - P/E RATIO FROM 2018-2022

P/B Ratio					
	Mar-22	Mar-21	Mar-20	Mar-19	Mar-18
Book Value [InclR	212.84	206.23	204.75	186.4	174.99
Share Price (in ₹)	902.35	587.2	338.25	478.85	495.4
PB ratio	4.23957	2.847306	1.652015	2.568938	2.831019

TABLE 7- P/B RATIO FROM 2018-2022

3.3 TECHNICAL ANALYSIS METHODOLOGY-

By studying statistical trends from trading processes like the RSI, MACD, price movement, and volume charts, technical analysis is a technique that is helpful in trading and to grab investments and spot trading opportunities.

It assesses securities by statistical analysis of

market activity,

past prices,

volume, and other factors.

Help technical analysis trading, experts have created hundreds of patterns and signals that are used throughout the business. Anticipate and trade on price swings, technical analysts have also developed a wide range of trading methods. These are a few examples of analysis's indicators:

1. Moving Average:

An indicator for technical analysis known as a moving average shows the daily average price of an investment. By employing moving averages to smooth out price data and reduce volatility, a trend tracking indicator is produced. Shorter moving averages are more sensitive and detect trends earlier but are less dependable than longer moving averages, which are more trustworthy and catch bigger trends but are less responsive. There are two types of moving averages:

- A security's mean price over a predetermined number of periods is used for creating a **simple moving average**.
- The calculation of the **exponential moving average (EMA)** gives more emphasis on the current prices. When a short-term moving average crosses over a long-term moving average, a bullish market is predicted, an upward momentum is considered. When a short-term moving average crosses below a long-term moving average, a negative momentum is considered, signaling a bearish market. Furthermore, both moving averages should be rising upward in a bullish market.

and there should be plenty of space between them. Moving averages are also used to determine a security's price support and resistance levels over a specified time.

2. Relative Strength Index:

J. Welles Wilder invented the relative strength index. An incredibly well-liked momentum indicator is the RSI. The momentum oscillator known as the RSI calculates how quickly and dramatically prices move. The RSI fluctuates between 0 and 100. RSI is calculated here on a 14-day basis. Historically, when the RSI is shown or marked above 70 and below 30, the stock is seen as being overbought and oversold, respectively.

RSI Signals:

• The stock is seen to be oversold and, as a result, is overpriced when the RSI crosses above the 70-mark level.

• When the RSI passes below 30 points, the stock is overbought and as a result is undervalued; as a result, it is high time to sell the stock to earn gains. Therefore, this is the best moment to buy the stock.

3. The Rate-of-Change (ROC), sometimes called as simply Momentum, is a pure momentum oscillator that tells the % change in price from one period to another. A central zero-point level serves as the pivot point for the value of ROC. Compute ROC, the price from 12 days ago is compared to the current price**.**

• A shift towards the zero line suggests that the current trend is waning.

• The ROC shows a sell signal when it moves from above zero to below zero, and a buy signal when it moves from below zero to above zero.

4. Bollinger Bands:

John Bollinger created the Bollinger bands, which is important for evaluating price movement.

The major signals from the Bollinger Bands are:

• The squeeze

• The expansion

When volatility rises, the bands automatically broaden; when volatility falls, they contract. The upper and lower Bollinger band boundaries show if a particular stock is overbought or oversold.

Technical analysts usually study the following time periods:

- 5-minute chart
- 15-minute chart
- Hourly chart
- 4-hour chart
- Daily chart

The interval a trader chooses to examine is mostly influenced by their own trading technique. Intra-day traders, or those who initiate and finish trades inside a single trading day, like to study price movement on charts with shorter time frames, such the 5- or 15-minute charts. Market analysis utilizing hourly, 4-hour, daily, or even weekly charts is more common among long-term traders.

An intra-day trader may view price movement that takes occurred within a 15-minute time as important when searching for an opportunity to profit from price changes that occur inside one trading day.

Three different trends exist in technical analysis: consolidation, bearish, and bullish. Positive and rising is bullish. Green is typically used to indicate it. This trend has lower lows and higher highs. The declining trend is bearish. Red is typically used to indicate it. The tendency of consolidation is sideways.

In technical analysis we would use the data of the year 2021-2022 and do the analysis for the same, as analysis of 2023 cannot be done because of insufficient data.

Relative Strength Index (RSI								

)								
DATE	close	Gain	Loss	RS	RSI	12EMA	26EMA	MACD
4/1/2021	610.75							
4/5/2021	608.8	0.00	1.95					
4/6/2021	620.45	11.65	0.00					
4/7/2021	621.05	0.60	0.00					
4/8/2021	614.25	0.00	6.80					
4/9/2021	636.75	22.50	0.00					
4/12/2021	619.35	0.00	17.40					
4/13/2021	627.35	8.00	0.00					
4/15/2021	633.25	5.90	0.00					
4/16/2021	646.05	12.80	0.00					
4/19/2021	640.65	0.00	5.40					
4/20/2021	645.15	4.50	0.00					
4/22/2021	639.95	0.00	5.20					

4/23/2021	637.95	0.00	2.00					
4/26/2021	634.7	0.00	3.25	1.570238	61.09			
4/27/2021	639.25	4.55	0.00	1.686905	62.78			
4/28/2021	643.4	4.15	0.00	1.8015	64.30			
4/29/2021	644.5	1.10	0.00	1.834212	64.72			
4/30/2021	654.45	9.95	0.00	2.152861	68.28			
5/3/2021	659.2	4.75	0.00	2.316681	69.85			
5/4/2021	645.15	0.00	14.05	1.522292	60.35			
5/5/2021	683.4	38.25	0.00	2.527618	71.65			
5/6/2021	679.4	0.00	4.00	2.270548	69.42			
5/7/2021	679.45	0.05	0.00	2.271917	69.44			
5/10/2021	698.2	18.75	0.00	2.824821	73.85			
5/11/2021	708.1	9.90	0.00	3.139211	75.84	670.4602	645.0365	25.42365
5/12/2021	702.85	0.00	5.25	2.661371	72.69	675.4432	649.319	26.12422
5/14/2021	691.45	0.00	11.40	1.962731	66.25	677.9058	652.4398	25.46599
5/17/2021	687.1	0.00	4.30	1.77360	63.9	679.328	655.011	24.3170

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5/18/2021	690.8	3.65	0.00	1.861689	65.06	681.0929	657.662	23.43093
5/19/2021	703.4	12.60	0.00	2.189153	68.64	684.5248	661.05	23.474
5/20/2021	686.85	0.00	16.55	1.496133	59.94	684.8825	662.9611	21.9214
5/21/2021	690.4	3.55	0.00	1.569261	61.08	685.7314	664.9936	20.73773
5/24/2021	690.95	0.55	0.00	1.581463	61.26	686.5342	666.9163	19.61791
5/25/2021	696.1	5.15	0.00	1.704499	63.02	688.0059	669.0781	18.92781
5/26/2021	703.8	7.70	0.00	1.902606	65.55	690.4357	671.6501	18.78568
5/27/2021	699.5	0.00	4.30	1.700059	62.96	691.8302	673.713	18.11722
5/28/2021	669.75	0.00	29.75	0.948059	48.67	688.4333	673.4195	15.01382
5/31/2021	668.3	0.00	1.45	0.926547	48.09	685.3359	673.0402	12.29561
6/1/2021	671.05	2.75	0.00	0.972892	49.31	683.138	672.8928	10.24521
6/2/2021	677.45	6.40	0.00	1.089045	52.13	682.263	673.2304	9.032563
6/3/2021	675.5	0.00	1.95	1.049063	51.20	681.2225	673.3985	7.823989
6/4/2021	673.95	0.00	1.55	1.017098	50.42	680.1037	673.4394	6.664293
6/7/2021	675.35	1.40	0.00	1.046736	51.14	679.3723	673.5809	5.791433

6/8/2021	678.75	3.40	0.00	1.124251	52.92	679.2766	673.9638	5.312794
6/9/2021	672.85	0.00	5.90	0.982	49.55	678.2879	673.8813	4.406592
6/10/2021	676.05	3.20	0.00	1.055905	51.36	677.9436	674.0419	3.901658
6/11/2021	681.3	5.25	0.00	1.186483	54.26	678.46	674.5796	3.880394
6/14/2021	677.1	0.00	4.20	1.066504	51.61	678.2507	674.7663	3.484471
6/15/2021	673.2	0.00	3.90	0.968561	49.20	677.4737	674.6502	2.823455
6/16/2021	668.55	0.00	4.65	0.866397	46.42	676.1008	674.1984	1.902448
6/17/2021	665.05	0.00	3.50	0.798154	44.39	674.4007	673.5207	0.879979
6/18/2021	668.5	3.45	0.00	0.881767	46.86	673.4929	673.1488	0.344085
6/21/2021	671.35	2.85	0.00	0.956153	48.88	673.1632	673.0156	0.147654
6/22/2021	666.8	0.00	4.55	0.847735	45.88	672.1843	672.5552	-0.37089
6/23/2021	665.25	0.00	1.55	0.813879	44.87	671.1175	672.014	-0.89658
6/24/2021	664.8	0.00	0.45	0.803842	44.56	670.1455	671.4797	-1.33412
6/25/2021	672.25	7.45	0.00	1.02372	50.59	670.4693	671.5367	-1.06742
6/28/2021	676.3	4.05	0.00	1.152445	53.54	671.3663	671.8896	-0.52322
6/29/2021	677.6	1.30	0.00	1.19694	54.4	672.3254	672.3126	0.01280

				3	8			5
6/30/2021	675.45	0.00	2.15	1.109047	52.59	672.8061	672.545	0.261116
7/1/2021	684.15	8.70	0.00	1.429055	58.83	674.5513	673.4046	1.146703
7/2/2021	681.25	0.00	2.90	1.281808	56.18	675.5819	673.9857	1.596132
7/5/2021	680.2	0.00	1.05	1.232298	55.20	676.2923	674.446	1.846298
7/6/2021	673.25	0.00	6.95	0.966262	49.14	675.8243	674.3575	1.466841
7/7/2021	680.1	6.85	0.00	1.19541	54.45	676.4821	674.7828	1.699269
7/8/2021	666.9	0.00	13.20	0.810153	44.76	675.0079	674.1989	0.809013
7/9/2021	667.9	1.00	0.00	0.836446	45.55	673.9144	673.7323	0.182073
7/12/2021	668.55	0.65	0.00	0.854851	46.09	673.0891	673.3484	-0.25934
7/13/2021	683	14.45	0.00	1.295489	56.44	674.6139	674.0634	0.55048
7/14/2021	685.95	2.95	0.00	1.392366	58.20	676.3579	674.9439	1.414011
7/15/2021	683	0.00	2.95	1.260825	55.77	677.3797	675.5406	1.839125
7/16/2021	688.6	5.60	0.00	1.453959	59.25	679.1059	676.508	2.597957
7/19/2021	689.25	0.65	0.00	1.4781	59.65	680.6666	677.4518	3.214728
7/20/2021	676.45	0.00	12.80	0.977596	49.43	680.0179	677.3776	2.640236

2/1/2022	891.75	57.25	0.00	2.344373	70.10	835.3908	826.3603	9.030512
2/2/2022	890.65	0.00	1.10	2.293002	69.63	843.8922	831.1225	12.76973
2/3/2022	883.55	0.00	7.10	1.989908	66.55	849.9934	835.006	14.98741
2/4/2022	893.95	10.40	0.00	2.198421	68.73	856.756	839.3722	17.38374
2/7/2022	887.05	0.00	6.90	1.913365	65.68	861.4166	842.9039	18.51267
2/8/2022	894.1	7.05	0.00	2.056038	67.28	866.4448	846.6962	19.74858
2/9/2022	886.45	0.00	7.65	1.76223	63.80	869.5225	849.6409	19.88158
2/10/2022	894.3	7.85	0.00	1.920146	65.76	873.3344	852.949	20.38542
2/11/2022	880.1	0.00	14.20	1.468417	59.49	874.3753	854.9602	19.41509
2/14/2022	864.85	0.00	15.25	1.154335	53.58	872.9099	855.6928	17.21709
2/15/2022	876.8	11.95	0.00	1.334835	57.17	873.5084	857.2563	16.25207
2/16/2022	868.85	0.00	7.95	1.181983	54.17	872.7917	858.1151	14.67661
2/17/2022	862.55	0.00	6.30	1.076758	51.85	871.216	858.4436	12.77245
2/18/2022	862.9	0.35	0.00	1.082084	51.97	869.9366	858.7737	11.16296
2/21/2022	843.85	0.00	19.05	0.824634	45.19	865.9233	857.6682	8.255084
2/22/2022	845.8	1.95	0.00	0.85086	45.9	862.8274	856.7891	6.03831

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2/23/2022	840.25	0.00	5.55	0.787551	44.06	859.354	855.564	3.789987
2/24/2022	818.25	0.00	22.00	0.597698	37.41	853.0303	852.8	0.230298
2/25/2022	831.55	13.30	0.00	0.754645	43.01	849.7256	851.2259	-1.50029
2/28/2022	843.9	12.35	0.00	0.911591	47.69	848.8294	850.6833	-1.85388
3/2/2022	820.9	0.00	23.00	0.693345	40.95	844.5325	848.4771	-3.94454
3/3/2022	820.9	0.00	0.00	0.693345	40.95	840.8968	846.4343	-5.53757
3/4/2022	829.65	8.75	0.00	0.798977	44.41	839.1665	845.1911	-6.02456
3/7/2022	822.65	0.00	7.00	0.732331	42.27	836.6255	843.5213	-6.89585
3/8/2022	855	32.35	0.00	1.147479	53.43	839.4523	844.3716	-4.91927
3/9/2022	868.25	13.25	0.00	1.330597	57.09	843.8828	846.1404	-2.25763
3/10/2022	869.55	1.30	0.00	1.349945	57.45	847.8316	847.8744	-0.04287
3/11/2022	902	32.45	0.00	1.870059	65.16	856.1652	851.8837	4.281433
3/14/2022	892.25	0.00	9.75	1.600673	61.55	861.7167	854.8738	6.842852
3/15/2022	891.65	0.00	0.60	1.585536	61.32	866.3218	857.598	8.723818
3/16/2022	889.2	0.00	2.45	1.522236	60.35	869.8415	859.9389	9.90265

3/17/2022	911.6	22.40	0.00	1.91533	65.70	876.2659	863.7656	12.50028
3/21/2022	913.8	2.20	0.00	1.956908	66.18	882.0404	867.4719	14.56851
3/22/2022	914.1	0.30	0.00	1.963013	66.25	886.9726	870.9258	16.04682
3/23/2022	900.8	0.00	13.30	1.519936	60.32	889.0999	873.1387	15.9612
3/24/2022	908.85	8.05	0.00	1.66706	62.51	892.1384	875.784	16.3544
3/25/2022	902.35	0.00	6.50	1.477976	59.64	893.7094	877.7518	15.95756
3/28/2022	905.9	3.55	0.00	1.544688	60.70	895.5849	879.8369	15.74799
3/29/2022	919.35	13.45	0.00	1.816884	64.50	899.2411	882.7638	16.47726
3/30/2022	920.6	1.25	0.00	1.84412	64.8	902.527	885.5665	16.9605

TABLE 8 - RSI INDEX FOR THE YEAR 2021-2022

3.4 COMPETITIVE ANALYSIS OF PHARMACEUTICAL COMPANIES WITH RESPECT TO SUN PHARMACEUTICALS

Another major factor in analyzing any company is to compare it with its leading competitors in Indian pharmaceutical industry. Here, we have shortlisted five top pharmaceutical companies based on their net profit and EPS value to compare it with Sun Pharmaceutical. We would take two factors of income analysis, i.e., **Net Profit and Value of EPS for the comparison.**

We have selected Five companies –

- CIPLA
- DR. REDDY'S LABORATORIES
- LUPIN
- AUROBINDO
- TORRENT PHARMACEUTICALS

For the years of 2019 to 2022.

Years	Net Profit of Sun	EPS of SUN	Net Profit of Cipla	EPS of Cipla	Net Profit of Dr.	EPS of Dredd y's	Net Pr of it of Lupin	EPS of Lupin	Net Profit of Aurobindo	EPS of Aurobindo	Net Prof it of Torrent	EPS of Torrent
2022	-99.99	-0.4	2,957.93	33.34	1,623.20	97.85	-188.7	-4.16	1,454.71	24.83	991	58.59
2021	2,139.70	8.92	2,468.28	30.61	2,186.40	131.84	1,258.62	27.77	3,112.91	53.13	1,138.00	67.24
2020	3,211.14	13.38	2,318.17	28.76	2,937.70	177.23	727.55	16.07	1,872.74	31.96	939	55.46
2019	816.6	3.4	1,888.41	23.45	1,277.30	76.98	1,538.83	34.03	1,529.73	26.11	745	44.05

TABLE 9 - ANALYSIS W.R.T NET PROFIT AND EPS OF FIVE OTHER PHARMA COMPANIES

4. RESULT

The Financial and technical analysis of Sun Pharmaceuticals is summarized by means of various tools. For financial analysis, we choose bar graphs and line graphs for explaining the effect of parameters such as liquidity factor, profitability factor, and earning factor. For the technical analysis part, the presentation of candlestick chart is suitable for various parameters such as MACD, RSI, EMA, Volume charts and Bollinger bands.

4.1 FINANCIAL ANALYSIS -

- **From the analysis of Table 2; i.e., the balance sheet of sun pharmaceuticals for the year 2018-2022, we can see that for obtaining current ratio and quick ratio, we need to analyze the assets and liabilities.**

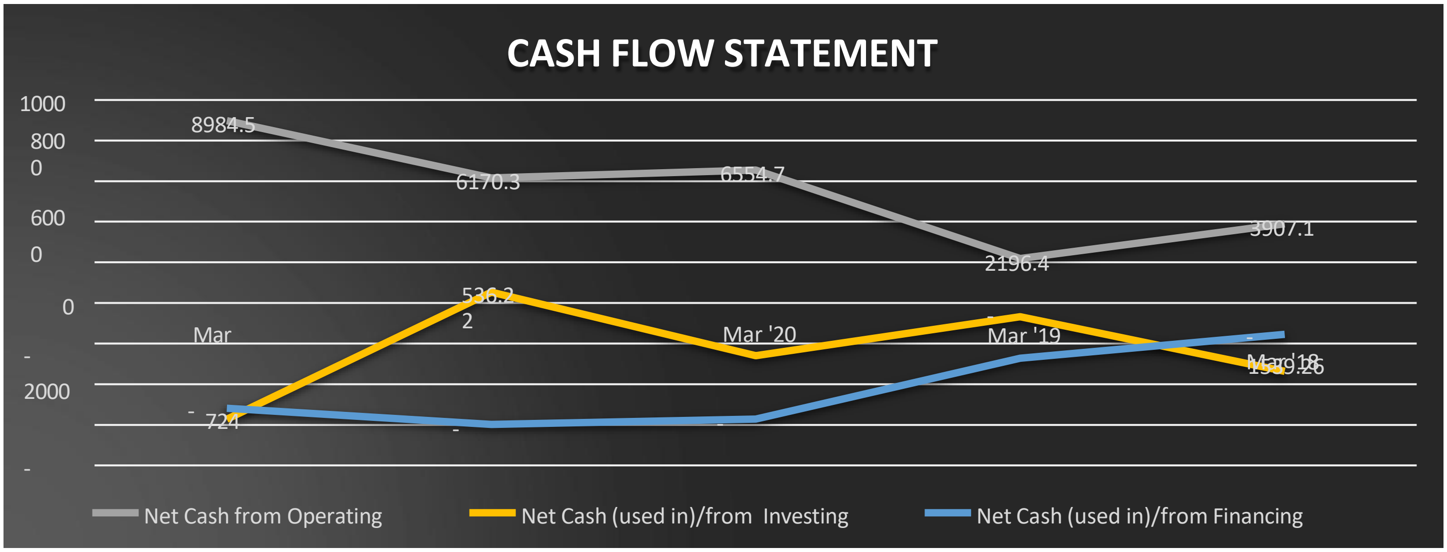
GRAPH 1- LIQUIDITY RATIOS

- From the analysis of table 4- we observe the cash flow statements while keeping three things in mind-

a) **Net cash from operating activities.**

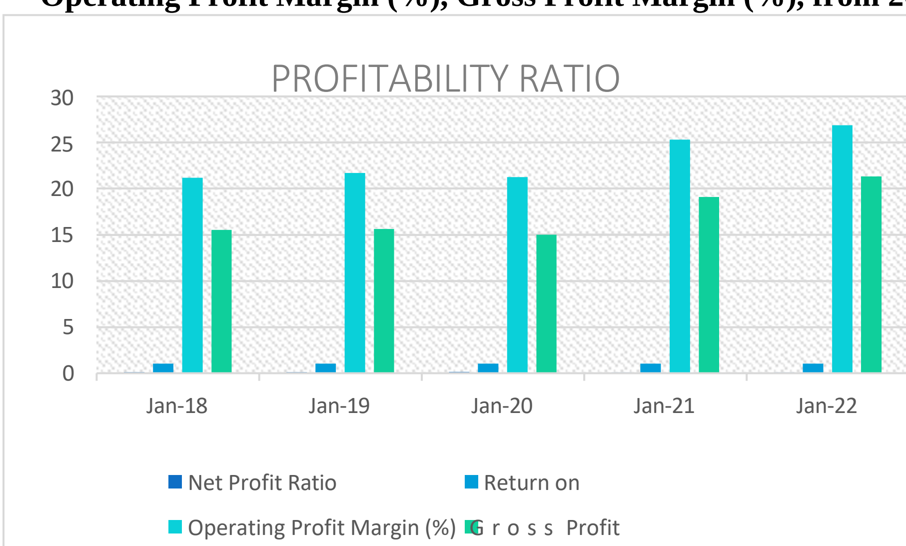
b) **Net cash (used in)/from investing activities.**

c) **Net cash (used in)/from financing activities.**



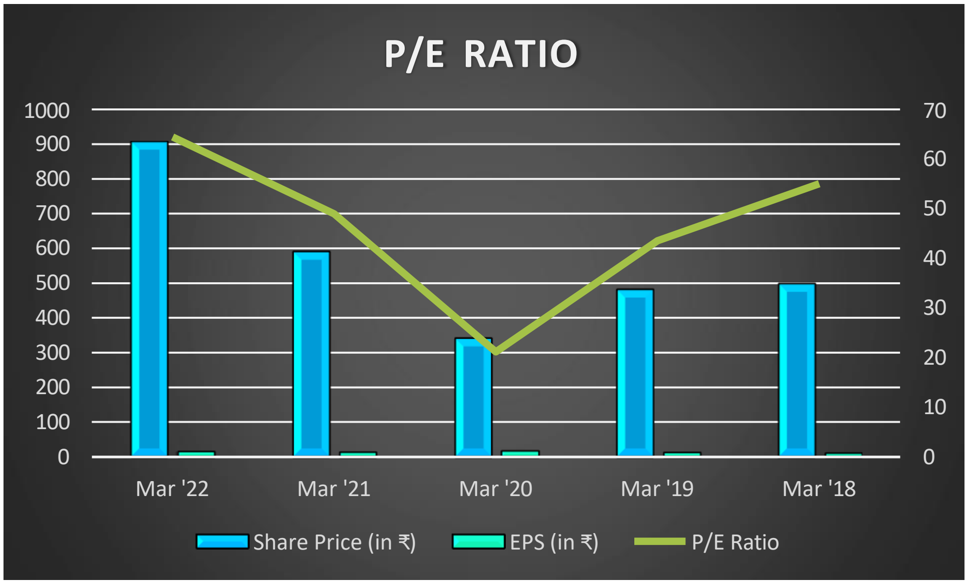
GRAPH 2- CASH FLOW STATEMENTS

- **From the analysis of table 5 and 6; we see that their discussion is on the profitability factor with reference to Net Profit Ratio, Return on assets, Operating Profit Margin (%), Gross Profit Margin (%), from 2018-2022**

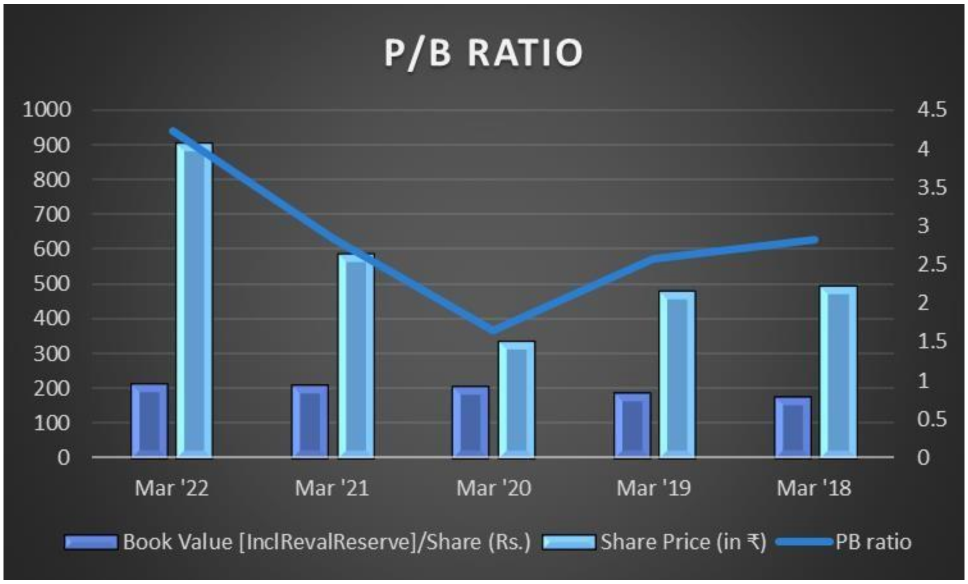


GRAPH 3- PROFITABILITY RATIOS

- From table 7, analysis of P/E Ratio and EPS is prominent. This is one of the major factors of fundamental analysis.



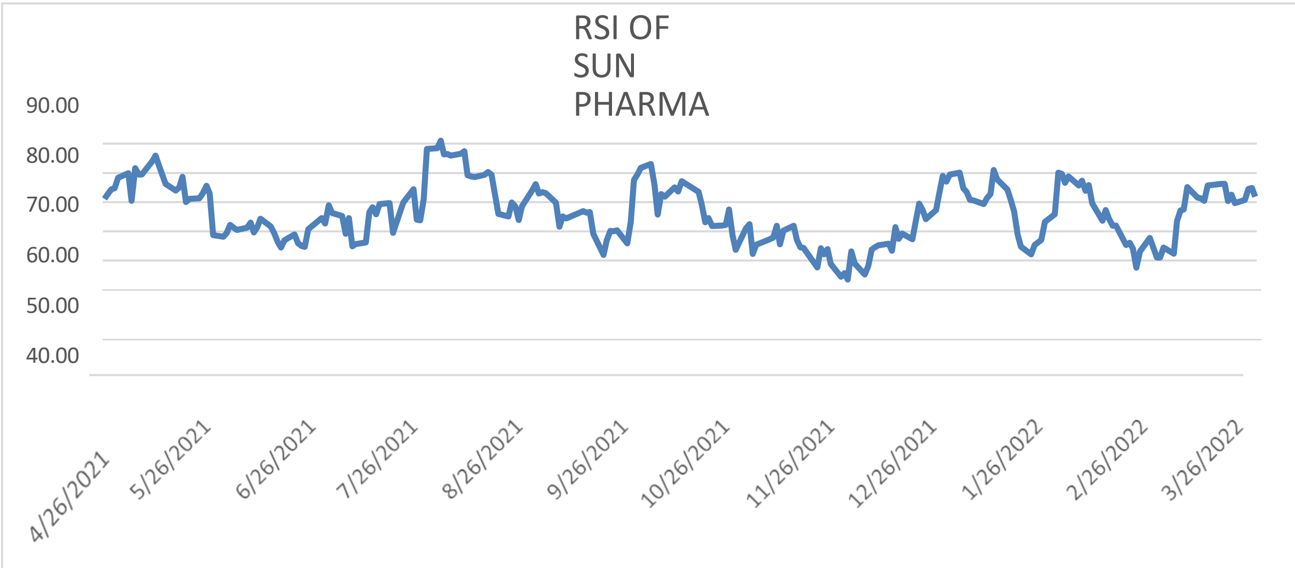
GRAPH 4- P/E Ratio



GRAPH 5 - P/B RATIO

4.2 TECHNICAL ANALYSIS –

RSI OF SUN PHARMA SCRIP



GRAPH 6 - RSI OF SUN PHARMA, SOURCE TRADING VIEW.

For stocks, a 14-day RSI is computed. Wilder advises using a 14 period as a reliable momentum indicator. by applying the straightforward formula RSI = [100 / (1+RS)]. According to tradition, RSI readings below 30 imply buying, while readings above 70 indicate selling. The RSI is calculated for the interval of 01.04.2021 to 31; the best period for purchasing the stock was from 29 November to 2 December, when the RSI was close to 30, and the best period for selling the stock was from 30 July to 8 August, when the RSI was over 75.

Technical Analysis using Candle Stick

GRAPH 7- ANALYSIS USING JAPANESE CANDLESTICKS METHOD

To assess the movement pattern of stocks, the Japanese Candlestick is utilized. The candle chart is equivalent to a bar chart. The color is still different. An indication of a bearish trend is a red candle, while an indication of a bullish trend is a green candle. Japanese candles utilize a stock's historical prices in the correct order, namely Open, High, Low, and Close. The height and length of the shadow provide information on the size of the shadow as well as the size of the candle. It is evident from the Candle Stick Chart above that Sun Pharma's stock price has gone up. It shows that investors are starting to become more bullish than bearish. In terms of Sun Pharma, the market is now experiencing a positive trend. It is a good moment to sell the Scrip in part.

EMA

GRAPH 8- GRAPH SHOWING EMA

Exponential Moving Averages, which are shown by the yellow, blue, and black lines in this image, depict 5 days, 8 days, and 13 days of EMA, respectively. The fact that the yellow line is below the black and blue lines indicates that the market is bearish on this company. The previous 7-8 candlesticks have also shown this and are primarily bearish. The best moment to buy is when the yellow and blue lines abruptly diverge from the bottom.

MACD

GRAPH 9- GRAPH SHOWING MACD.

This is a chart of the MACD indicator. In this, I have picked criteria such as the MACD period's 12 day moving average, the signal period's 9 day moving average, and the MACD period's 26 day moving average. The black line on this graph represents the MACD, while the red line represents the signal. It is evident that the MACD line is in a downward trend and is below the signal line, indicating a very strong sell signal. The best opportunity to buy the stock was after January, when the blue line sharply crossed the red line from below.

VOLUME CHART

GRAPH 10- GRAPH SHOWING VOLUME CHART

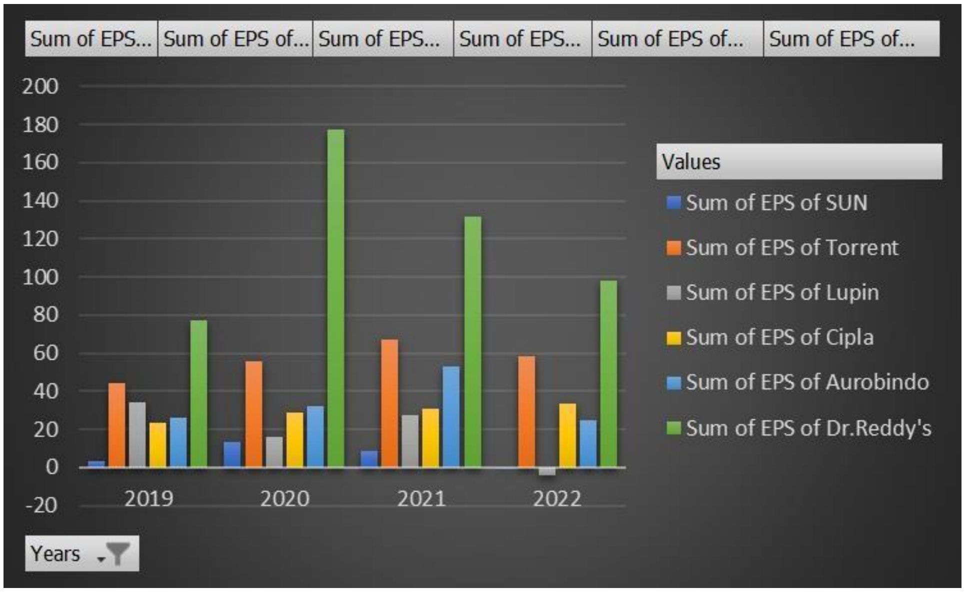
This figure shows how the volume chart for SUN Pharma exhibits a mixed signal, with both the red and blue color bars predominating. Blue color bar represents up volume, whereas red color bar represents down volume. As the last bar is blue, we can observe from this indication that the trend is slightly positive. The first week of February, when volume was at its highest, was the greatest opportunity to buy the stock.

BOLLINGER BAND

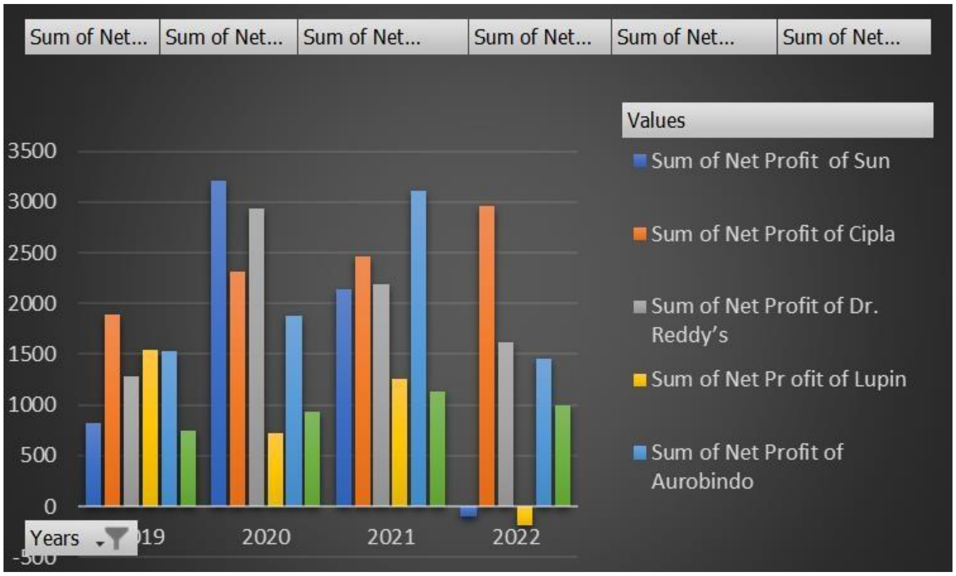
GRAPH 11 - GRAPH SHOWING BOLLINGER'S BANDS

Bollinger Bands are made up of three lines**: an upper band, a lower band, and a simple moving average (middle band)**. A 20-day simple moving average's upper and lower bands are normally two standard deviations +/- apart. Closing price is closer to the bottom range, as seen by this chart. The market is more oversold the closer prices get to the bottom band. This indicates a downward tendency.

4.3 RESULT OF COMPETITIVE ANALYSIS-



GRAPH 12 - COMPARISON OF SUM OF EPS OF PHARMA COMPANIES FROM 2019-2022



GRAPH 13 - COMPARISON OF SUM OF NET PROFIT OF PHARMA COMPANIES FROM 2019-2022

5. DISCUSSION-

5.1 INTERPRETATION OF THE RESULTS-

- Current ratio in all the years is above 1.5, **that means company is performing well**.
- Quick ratios are in the range of 1.2 -1.5, **i.e., the company has 1.2-1.5 rupees of liquid assets to cover 1 current liability.**
- From 2018 to 2022, **the return on assets shown identical performance, averaging 1.05.**
- The Net Profit Ratio first increased from the year 2018 to 2020, **but there was a little decline in 2021 (a ratio of 0.06); nevertheless, it managed to grow once again in 2022 (a ratio of 0.08).**
- Operating profit margin refers to a company's profit after subtracting its cost of goods sold. In this instance, sun medicines are seeing a slow decline over time, which is encouraging for investing.
- Similar improvements to operational profit margin are also seen in gross profit margin. **The sole distinction between them is that whereas operational profit margin also accounts for overhead, gross profit margin simply considers the direct costs of production.**
- **Consistently rising EPS demonstrates a company's profitability. Additionally, our stock price rises, increasing the P/E ratio. This is the most crucial element since it assesses the parameters of stocks and informs us of their under or overvaluation.**
- Investment opportunities are attracted to PE ratios under twenty.
- **Future earnings growth estimates are indicated by the P/E ratio, with a greater P/E ratio indicating higher expectations and a lower P/E ratio indicating lower expectations.**
- Evaluation of P/E Ratio is especially important because it tells us whether the stock is high in price or not. In comparison, a lower PE ratio indicates that share price is more reasonable while a higher PE ratio indicates that share price is costly.

- Although Sun Pharma is displaying excellent growth, it is not the best company to purchase because of its high price, according to a comparison of its PE ratio during the past five years. **Sun Pharmaceutical's PE Ratio is not less than 20, thus.**
- The price-to-book (PB) ratio, a method of valuing businesses. For value investors, **any number below 1.0 is ideal since it may indicate the discovery of a cheap stock. The benchmark for certain value investors, may be equities with a P/B value of less than 3.0 and not above that.**
- Sun Pharmaceuticals is a decent option for investing if we look at the average P/B ratio, **which is 2.2, but if we simply look at the most recent year, it is not the best choice since it is overpriced.**
- From November 29 to December 2, when the RSI was close to thirty, and from July 30 to August 8, when it was above 75, when it was the optimum moment to sell the stock.
- As far as Sun Pharma is concerned, **the market is now experiencing a positive trend. It is a good moment to sell the Scrip in part.**
- **The graphic demonstrates that the closing price is closer to the lower band when considering Bollinger brands. The market is more oversold the closer prices get to the bottom band. This indicates a downward tendency.**
- When compared to five other pharmaceutical businesses in a competitive study, **Sun Pharmaceuticals' net profit is highest in 2022 and shows a sharp decline in recent years, making it less attractive for investment than its rivals.**
- **The EPS parameter is the same.**

5.2 LIMITATIONS-

- Most businesses have not updated their yearly records for the year 2023 for the competitive analysis, making it challenging to maintain track of new data and recent advancements.
- Using a variety of secondary data sources decreases the concept's clarity since they all use different variables to describe the same ideas and subjects.

- **Data Availability:** Sun Pharmaceuticals-related data accuracy and accessibility might be constrained. The lack of new updated data was a problem and the problem with the old data is that it leads to inaccuracy.
- **Market Volatility**: Market volatility might affect how accurate the analysis is since it affects the pharmaceutical business. Regulation changes, patent expirations, competitive challenges, and market trends are just a few examples of the variables that might add unpredictability and impact stock prices.
- **External components**: Fundamental and technical analysis frequently concentrate on a company's internal components. However, the analysis should consider how outside variables like macroeconomic conditions, industry dynamics, and geopolitical events may have an impact. Conduct a thorough study, these factors—which have the potential to have a substantial influence on Sun Pharmaceuticals' performance—should be considered.
- **Technical analysis's limitations**: To forecast future stock movements, technical analysis depends on previous price and volume patterns. Technical analysis is not always correct, and it is just a prediction.
- **Fundamental Analysis Assumptions and Limitations:** Fundamental analysis is predicated on several assumptions, such as revenue growth rates, profit margins, and discount rates. These forecasting is subject to market share and price and not on actual may not always be correct. Additionally, qualitative elements like managerial skill or market upheaval could not be adequately captured by basic analysis.

6. CONCLUSION-

- In summary, Sun Pharmaceuticals has demonstrated impressive performance in the pharmaceutical sector, according to the economic analysis of the firm. The economy has benefited from its contributions to the development of jobs and healthcare affordability, making it a crucial component of India's pharmaceutical industry.

- The pharmaceutical sector is dynamic and cutthroat, according to Sun Pharmaceutical's industry study. Market dynamics, rivalry, legal frameworks, intellectual property rights, and market trends all have an impact on how well it does.
- Sun Pharmaceuticals is a well-known company in the pharmaceutical sector and is renowned for its wide range of products, solid financial standing, and strategic plans. The firm is well-positioned to negotiate market challenges, foster innovation, and maintain its development trajectory thanks to its worldwide presence, R&D skills, and competitive advantages.

- Sun Pharmaceuticals does business in a highly regulated and cutthroat market. The corporation must constantly keep an eye on external issues affecting its business operations and financial performance and adjust, as necessary. Sun Pharmaceuticals may learn more about the external variables affecting its business and create plans to reduce risks and seize opportunities by performing a PESTLE study.

- **Sun Pharmaceuticals is overpriced in terms of financial analysis, which increases the cost to consumers. It is advised against purchasing Sun Pharmaceuticals shares for long-term investing. Smooth intraday trading is possible.**

- **People who are new to trading options are not encouraged to use Sun Pharma, and those who are unaware of recent developments in the pharmaceutical industry are also discouraged from doing so.**

6.1 SUGGESTIONS-

• It is advised to do a deep analysis of the company you are planning to invest in.

• It is not advisable to invest just in one security because the returns could not always be positive. The risk is decreased, and returns are stable when investing in a variety of diverse assets.

• Borrowing money to invest in the stock market should be avoided at all costs.

• Each person should have their own financial plan and should not let other people's opinions affect their choices.

• Holding solid investments is always preferable to frantic trading for fast gains.

India's economy is one of the world's fastest expanding, as we all know. The Indian Pharmaceutical Industry is doing quite well for past few years. The strengths of the Indian pharmaceutical industry include its versatility, research and manufacture, clinical research, and research and development for vaccines. Outsourcing for the mentioned tasks also generate employment and helps in expansion. According to Fundamental Analysis, no one should buy or sell a share based only on rumors and advice. Overall, the liquidity and leverage positions of the pharmaceutical businesses are strong and sufficient, but still need to improve the profitability and efficiency.

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